Minutes approved 27Sep95
Joe O'Hop

FISHERIES INFORMATION NETWORK
MINUTES
Tuesday, February 28, 1995
Jacksonville, Florida

Chairman Skip Lazauski called the meeting to order at 3:20 p.m. The following people were present:

Charlie Anderson, MDMF, Boston, MA
Mary Anne Camp, NMFS, Miami, FL
David Donaldson, GSMFC, Ocean Springs, MS
Lee Green, TPWD, Rockport, TX
Albert Jones, NMFS, Miami, FL
Lisa Kline, ASMFC, Washington, DC
Steve Koplin, NMFS, Silver Spring, MD
Skip Lazauski, ADCNR, Gulf Shores, AL
Ron Lukens, GSMFC, Ocean Springs, MS
Dee Lupton, NCDMF, Morehead City, NC
Daniel Matos, PRDNER, Mayaguez, PR
Joe Moran, SCDNR, Charleston, SC
Nick Nicholson, GDNR, Brunswick, GA
Joe O'Hop, FMRI, St. Petersburg, FL
Maury Osborn, NMFS, Washington, D.C.
John Poffenberger, NMFS, Miami, FL
Lance Robinson, TPWD, Seabrook, TX
Gina Rogers, GDNR, Brunswick, GA
Ron Salz, NMFS, Silver Spring, MD
Tom Schmidt, USNPS, Homestead, FL
Joseph Shepard, LDWF, Baton Rouge, LA
Tom Van Devender, MDMR, Biloxi, MS
Wayne Waltz, SCDNR, Charleston, SC

Adoption of Agenda

The agenda was approved with the addition of Discussion of ComFIN MOU after Operating Procedures of Fisheries Information Network (FIN) Meeting.

Operating Procedures of FIN Meeting

D. Donaldson suggested that concerning the chairman of the FIN meeting, it could alternate between the ComFIN and RecFIN chairmen. The Committee agreed without objection that this method would be appropriate.

Discussion of FIN Memorandum of Understanding (MOU)

R. Lukens stated that there are two issues: signing of ComFIN MOU and reauthorization of the RecFIN MOU. He suggested that instead of signing two MOUs, why not combine the two MOUs into one which incorporates both programs. The combined MOU would be very specific about the two separate components (ComFIN and RecFIN) and not diminish either program as it would be very clear that there are two separate components. The language of the MOU is essentially a blending of the RecFIN and ComFIN MOUs. W. Waltz stated the continuation of RecFIN was contingent upon the outcome of peer review of the program and if a MOU is signed without considering the review, it could diminish the impact of the program evaluation. M. Osborn stated that the Committee needs to be prepared to move forward at the fall meeting based on the outcome of the review; consequently, the Committee needs to decide if they want to do a combined MOU or separate ones for each program. Currently, all MOUs which involve NMFS have to go through the Department of Commerce lawyers for approval which would make it easier to do just one MOU. R. Lukens stated that it may not be necessary to wait for the outcome of the review before proceeding with the MOU for ComFIN and RecFIN. S. Lazauski noted that the state directors need to be briefed about this action but actual signature of the MOU could be delayed until the fall. Although it will delay the formal establishment of ComFIN, in actuality, ComFIN has been working for about a year. It just has not been formally established. The Committee decided to move forward with one MOU which includes both ComFIN and RecFIN and wait for the outcome of the RecFIN review before proceeding.

Update and Status of ACFIN

L. Kline stated that the last time the Committee was updated, the ASMFC Statistics Policy Committee had adopted a statistics resolution and a vision document. Both documents were presented to the Commission at their fall meeting and adopted by the Commission. Since then, the ASMFC has established two committees: the gang of four and a working group. The gang of four includes Jack Dunnigan, Dick Roe, Bill Hogarth, and Jack Travelstead. This group provides policy level oversight to the working

group. The working group is called the Fisheries Statistical Plan Design Team and is a mixture of state, federal, and Commission personnel. This group has met several times and is attempting to design the process of how to develop and implement ACFIN. The process will be a multi-phase process. The first phase is a policy level statistic workshop. It has been agreed that the process should be consensus driven. All participants should have the opportunity to air their views. To ensure that the whole process is done by consensus, all workshops and meetings will be conducted via a facilitator. The Decision Analysis Team of the Department of Commerce has been selected to facilitate these sessions. The output from the statistic workshop will be used to develop and design the program. In the second phase, the group will design a strategy for accomplishing the goals and objectives of the program and develop an implementation plan for the program.

Update on NMFS Fisheries Statistics Strategic Plan

M. Osborn stated that NMFS is currently collecting feedback on the results of the Fisheries Statistics Strategic Plan; however, there has not been a lot of progress due to several reasons. The first is that everyone is a little bit overwhelmed within NMFS due to management evaluations, reorganizations, and charter team activities. The other has to do with the activities occurring on the Atlantic coast with the development of ACFIN. J. Shepard asked if there has been any document developed from all the FSSP activities. M. Osborn stated that a draft plan has been developed but it is not ready for distribution since Director Schmitten has not given it final approval.

Status of Administrative Proposal

R. Lukens stated that a joint proposal has been submitted to NMFS for funding of ComFIN and RecFIN activities. It is a administrative proposal and will provide staff, travel for all committee and work group members, publication costs, and other miscellaneous costs totalling $137,000. There is a large amount of funds being held in NMFS-HQ for fisheries statistics; however, no decision has been made to date. According to discussions with Dick Roe, a decision will probably be made in the next two

weeks. Reaction from NMFS has been very positive and funding will be delayed until the NMFS-HQ has made a decision concerning the money distribution.

Time Schedule for Next Meeting

J. Poffenberger suggested that the next meeting be held in Miami at the NMFS Laboratory so there can be a demonstration of the new IT-95 computer system. The Committee agreed that the meeting will be held in Miami, Florida at the NMFS Laboratory. The time frame of the meeting was also discussed. The weeks of September 18th, September 25 and October 2 were selected as possible meeting times. The Committee directed the staff to determine the best week to have the meeting.

There being no further business, the meeting was adjourned at 4:40 p.m.

RECFIN(SE) COMMITTEE MINUTES
March 1-2, 1995
Jacksonville, Florida

Chairman Skip Lazauski called the meeting to order at 9:10 a.m. The following people were present:

David Donaldson, GSMFC, Ocean Springs, MS
Lee Green, TPWD, Rockport, TX
Albert Jones, NMFS, Miami, FL
Lisa Kline, ASMFC, Washington, D.C.
Wilson Laney, USFWS, Raleigh, NC
Skip Lazauski, ADCNR, Gulf Shores, AL
Ron Lukens, GSMFC, Ocean Springs, MS
Nick Nicholson, GDNR, Brunswick, GA
Joe O'Hop, FMRI, St. Petersburg, FL
Maury Osborn, NMFS, Washington, D.C.
Ron Salz, NMFS, Silver Spring, MD
Tom Schmidt, USNPS, Homestead, FL
Joe Shepard, LDWF, Baton Rouge, LA
Tom Van Devender, BMR, Biloxi, MS
Wayne Waltz, SCDNR, Charleston, SC

Approval of Agenda

The agenda was approved as written.

Approval of Minutes

The minutes from the meeting held on September 28-29, 1994 in St. Petersburg, Florida were approved with minor editorial changes.

Election of Officers

* R. Lukens stated that the Administrative Subcommittee has discussed this issue and recommended that a representative from the Virgin Islands be nominated for Chairman and a representative from the South Atlantic be nominated for Vice Chairman. The Committee nominated Steven Meyers for Chairman and Wayne Waltz for Vice Chairman. The nominations were closed and the nominees were elected by acclimation. Since Steven Meyers was not present, W. Waltz, Vice Chairman, presided over the

meeting. **W. Waltz moved that a letter be sent to S. Lazauski thanking him for his outstanding job as the chairman of the RecFIN(SE). The motion was seconded and passed unanimously.**

Discussion Regarding Licensing Framework

a. Presentation of Results from 1993 Oregon Study and 1995 Activities

R. Salz stated that a preliminary report concerning the activities has been developed but work is still continuing on the results of this pilot study. The NMFS plans to conduct this study for at least another year which will give them a better idea of the potential savings from this type of methodology. Initially, starting in July 1995, the NMFS planned to conduct the same study. It would be conducted in Oregon and preferably during the same wave (Wave 4) as the 1993 study. However, changes to the methodology are currently being discussed by the NMFS. These changes would improve the current methods and result in better data being collected. One of the changes that is being considered is to only interview the first angler in a household as opposed to interviewing all the anglers. Also, the NMFS is examining other ways of making the study more efficient. Due to these changes, funding issues and other issues, the NMFS may not be able to begin sampling in July 1995. The Committee asked several questions concerning the methodology. M. Osborn stated that although the NMFS is examining this methodology, it is not likely to use this method in the near future. R. Lukens asked if it would be useful to compile information concerning marine recreational fishing licenses in terms of exemptions, provisions, etc. L. Kline stated that data are available for the Atlantic coast. R. Lukens stated that the Gulf will compile similar information for the Gulf of Mexico. Staff will work with the ASMFC to ensure that similar data are collected and all information are compiled into one document.

b. Discussion of ASMFC Tournaments and Licensing Workshop Proceedings

L. Kline stated that these workshops were conducted during June 13-15, 1994 in Plainview, New York. The saltwater fishing tournament workshop focused on bringing together the fishery managers and tournament directors for communication purposes.

The first part of the workshop looked at how tournaments have changed over the years. The major changes were moving the focus on big game species to other smaller recreational species, an increase in the number of tournaments which occur, and turning towards more management and conservation (catch and release). The workshop was conducted as a round table discussion mainly to identify and prioritize some of the major issues and concerns of both groups. There were several categories identified including data collection and research needs and education and conservation. The licensing workshop was generated by an ASMFC resolution which encourages each member state to endorse the establishment and issuance of recreational fishing licenses. The workshop was set up to evaluate who had licenses, key provisions of the licenses, and opposition to implementation of licenses. The format of the workshop was a round table discussion involving fishery managers, fishermen and legislators. These groups discussed the pros and cons of a saltwater recreational fishing license. Some of the issues discussed included the fisherman's right to fish without paying for it, dedicated funding from the licenses being used for the betterment of the resources, and increasing communication between fishery managers and the public. R. Lukens stated that a similar workshop was conducted in the Gulf of Mexico and since many changes have occurred since that workshop, it may be time to conduct a follow-up session.

Discussion of Continuation of Inkind Contribution Reporting

D. Donaldson stated that reporting of inkind contributions regarding RecFIN has been diminishing. Due to this decrease, it was believed that the Committee needed to revisit this issue. The information has been used to show the commitment and dedication of RecFIN members to the program. It has been presented to NMFS and other personnel as justification of providing dedicated funding of the RecFIN. D. Donaldson indicated that he believes that this information is important and should be continued, at least until dedicated funding is secured for the program. The Committee agreed that collection of inkind contributions was important and should be continued. The Committee discussed how frequently this information should be collected. M. Osborn asked if a yearly time frame would be easier for the group to compile the data.

The Committee agreed that the yearly time frame was better and that staff would send out a form in the beginning of the year and prompt the Committee at the end of the year to send in the completed form. The Committee decided to establish a deadline of March 30, 1995 to update the 1994 inkind contributions form and send it to the staff.

Discussion regarding Evaluation of Adequacy of Current MRF Programs

* A matrix for the evaluation of MRF programs was distributed to the Committee. D. Donaldson stated that he attempted to fill in the forms as best he could from the information provided during the presentations regarding the various programs. The Committee thoroughly reviewed this matrix to ensure that all the information was complete and accurate. R. Lukens stated that the purpose of this agenda item is to determine what the next step in this activity will be. **M. Osborn moved that the Committee charge the Biological/Environmental and Social/Economic Work Groups with several tasks. The first task is to review the matrix, the list and description of current MRF programs, and other information compiled by the Committee and develop a list of problems and issues that are associated with these surveys. These can be statistical problems, overlap or duplication of surveys, etc. Also, the Work Groups need to describe where there are gaps in survey coverage. Once each group has developed a list, the groups will meet jointly to develop one master report which prioritizes the issues in terms of the types of activities that can be addressed in the next few years. The issues can be divided into two groups. The first are issues that can be addressed through work group, workshop, and/or agency decision making activities which may need money after the work group/agencies address them. The other is issues which need money to be implemented. This report will be presented to the Committee at the fall meeting for approval.** The motion was seconded and passed unanimously. M. Osborn stated that once the Committee approved the report, the report will be distributed to the Commissions, Councils, State and Federal agencies to present RecFIN(SE)'s recommendations. J. Shepard stated that the groups need to examine these issues in

terms of the overall picture and see how each part fits with each other and how fixing one part affects the others in reaching an ultimate goal.

Administrative Issues

a. Subcommittee Report

* R. Lukens reported that the Administrative Subcommittee met via conference call and discussed the next meeting place and time, chair and vice chair nomination process and procedures, and RecFIN evaluation. R. Lukens continues to work with Churchill Grimes who is coordinating the RecFIN review under the auspices of the Marine Fish Section of the American Fishery Society (AFS). The tentative time frame for the RecFIN evaluation is early May 1995 and three people have been selected for the review team. They are Bob Ditton, Texas A&M University, Cynthia Jones, Old Dominion University and John Harville, past executive director of Pacific States Marine Fisheries Commission. C. Grimes will construct a letter to be sent to each of the review team members which outlines what is expected from each member. **J. Shepard moved that the Committee send a letter to the NMFS-HQ which informs them of RecFIN review process and who will be on the review team**. The motion was seconded and passed unanimously. R. Lukens stated that during the Administrative Subcommittee conference call, it was recommended that the following representation from the RecFIN(SE) Committee be in attendance at the review: NMFS-HQ, NMFS-SEFSC, ASMFC, GSMFC, and one state representative from the Gulf, South Atlantic, and Caribbean region. C. Grimes suggested that the review team members receive an honoria of $400/member in recognition of all their work. The Commission(s) will enter into a subcontract with the AFS as the method for dispersing the honoria. The Committee agreed that this would be appropriate. M. Osborn stated that NMFS would provide invitational travel for the three review team members. A. Jones stated that NMFS-SEFSC would pay for the Caribbean representative. R. Lukens stated that the GSMFC would pay for the Gulf region and Gulf Commission representatives. L. Kline stated that the ASMFC would pay for the South Atlantic region and ASMFC representatives. The Committee decided that each geographic subcommittee will determine who will represent their region. The

Committee discussed the structure of the presentation to the review team and who would present the talk. The Committee decided that R. Lukens should deliver the presentation to the team.

b. Status of RecFIN Memorandum of Understanding (MOU)

At the FIN meeting, the group discussed and decided to proceed with one MOU which will encompass both the ComFIN and RecFIN. However, the group also decided to delay any action on the RecFIN side until the program evaluation is completed.

c. Discussion of Long-term Planning

* R. Lukens stated that the RecFIN is reaching the end of a three-year period where specific tasks and activities have been identified for completion and there has not been much discussion concerning the next step for the program. He suggested that a facilitated brain storming session may be helpful in identifying issues which need to be addressed in the future. **M. Osborn moved that the Committee set up a facilitated session to identify issues and problems that need to be addressed by the group.** The motion was seconded and passed unanimously. The session was scheduled for the next RecFIN meeting in September 1995. R. Lukens stated that when the idea of RecFIN was started in the Gulf of Mexico, part of the desire was for the Gulf states to be full partners with the NMFS The ultimate product would be a full partnership with the NMFS in a State/Federal cooperative recreational fisheries survey. The states were not interested in being subcontractors to NMFS contractor for the intercepts of the MRFSS. The states' justification is that, for the long-term, the program will become better in that there will be better State/Federal cooperation and a reduction of the potential for duplication of effort. M. Osborn stated that she is aware of the desire of the Gulf states to be more involved in the intercept portion of the MRFSS. However, it appears that not all of the states are prepared to begin intercept sampling and until all the Gulf States are ready to commit and there is additional money to do it, the NMFS is not at that stage yet. NMFS does own some of the QA/QC and other software for the MRFSS but the contractor owns the data entry software. R. Lukens stated that there are

problems involved with getting the states to conduct intercept surveys; however, he wanted to let NMFS know that this is still a long-range goal of the states.

The meeting recessed at 4:35 p.m.

March 2, 1995

The meeting reconvened at 9:00 a.m.

Work Group Reports

a. Biological/Environmental

* D. Donaldson reported for Work Group Leader S. Meyers that the Work Group met via conference call to discuss several issues. The first issue was metadata. The group discussed developing several different data bases such as environmental, sociological, regulatory, etc. There will be a Work Group meeting after this meeting. The main objective of this meeting is to review the criteria and edit the existing data base. The other issue is final approval of the QA/QC document for RecFIN. The document was edited to make it more generic and not so slanted towards the MRFSS. J. Shepard asked what is the next step for this document. M. Osborn stated that by approving this document, each participant agrees to adhere to the minimum set of standards outlined in the document when conducting MRF surveys. The Committee thoroughly reviewed the document and the final document serves as the administrative record for this portion of the meeting. **M. Osborn moved to adopt the RecFIN QA/QC document as amended and that document should be updated periodically by the Committee.** The motion was seconded and passed unanimously.

b. Social/Economic

D. Donaldson reported for Work Group Leader Ron Schmied that the Work Group has not met since the last meeting. The Work Group is continuing to monitor and compile information from the parallel activities being conducted on this topic. M. Osborn stated that there has been an economic add-on to the MRFSS in the Northeast. The

NMFS has worked out many of the bugs from the original questionnaires and methods. The NMFS sent the basics of the survey to economists across the country to let them know that it is possible to add on to the MRFSS to get this type of information. There has been some interest from economists in the Southeast Region who are in the process of procuring some money to add on to the MRFSS.

Development of 1994 RecFIN Annual Report

* D. Donaldson stated that a draft copy of the Annual Report was distributed to the Committee for their comment and review. The report follows the same format used for the 1993 Annual Report. R. Lukens suggested adding a section regarding efforts by the staff and Committee members to distribute or provide presentations about RecFIN. It was noted that the minutes and 1994 Operations Plan for RecFIN(SE) were not included in the copies distributed. D. Donaldson stated that although they are not included in these copies, they will be included in the final document. After some discussion and other minor editorial changes, **A. Jones moved to approve the 1994 Annual Report of RecFIN(SE)**. The motion was seconded and passed unanimously.

Other Business

M. Osborn stated that NMFS received $90,000 to develop a user-friendly up front system for the MRFSS data. Due to the reestimation, not much work has been done. Hopefully, a meeting with contracting personnel will be held during late March. NMFS-HQ is now on the Internet and have their own home page. Also, NMFS is developing a user-friendly menu system for fisheries data.

L. Kline stated that the ASMFC has two workshops scheduled for September 1995. The first workshop (September 6) will examine the different methods of estimating participation. The other session (September 7-8) will be a continuation of the charter/headboats workshop. The objective of this session is to develop an Atlantic coast charter/headboat survey.

There being no further business, the meeting was adjourned at 10:50 a.m.

APPROVED BY:

Tom Wagner
COMMITTEE CHAIRMAN

TCC CRAB SUBCOMMITTEE
MINUTES
March 14, 1995
Lake Buena Vista, FL

Tom Wagner, Chairman, called the meeting to order at 9:00 a.m. The following were in attendance:

Members
Vince Guillory, LDWF, Bourg, LA
Phil Steele, FDEP, St. Petersburg, FL
Steve Thomas, USA, Mobile, AL (*proxy for Steve Heath*)
Tom Wagner, TPWD, Rockport, TX
James Warren, GCRL, Ocean Springs, MS (*proxy for Harriet Perry*)

Others
Keith Ashton, Bo Brooks, Seadrift, TX
Bruce Buckson, FMP, Tallahassee, FL
Phil Bowman, LDWF, Baton Rouge, LA
Page Campbell, TPWD, Rockport, TX
Paul Coreil, LCES, Baton Rouge,LA
Alan Matherne, LCES, Galliano, LA
Jim McCallister, FMP, Tampa, FL
Dale Shively, TPWD, Austin, TX
Sherman Siegmund, Fisherman, Port Charlotte, FL

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

Due to the absence of the state representatives from Alabama and Mississippi, those state reports were removed from the agenda. Due to a lack of time, the discussion of regional analyses of juvenile blue crab abundance historical data was deferred, and representatives are asked to bring available data for this item (on slides or overhead transparencies) to the fall meeting. The agenda was then adopted with these changes.

Adoption of Minutes

The minutes of the meeting held October 18, 1994, in New Orleans, Louisiana, were adopted as presented.

State Reports

Florida - Phil Steele presented a slide program that was recently given at the National Blue Crab Industry meeting. The program highlights the status of the blue crab fishery in the Gulf of Mexico by region and across the United States. He noted that landings do not necessarily reflect the biological status of the fishery. Production by state showed that Texas landings declined in 1987 and rebounded in 1993; Louisiana landings show an upward trend; Mississippi landings are often not reported in Mississippi; Alabama has a stable fishery; and Florida's restricted species endorsement may have affected reported landings. Steele noted that for the most part, recommendations from the regional management plan have been incorporated by the states. A recent problem in the fishery that need to be addressed concerns alternative bait for crab traps. The presentation closed in saying that blue crab resources supports one of the largest single-species food fisheries in the United States.

Louisiana - Vince Guillory reported 1994 landings at 33 million pounds which was down from 45 million pounds in 1993 and 51 million pounds in 1993. The number of trap licenses sold in 1994 was 2,503 which is down from 2,854 in 1993. Several bills are before the legislation concerning the fishery; however, none of these bills were sponsored by the LDWF. Proposed bills would implement penalties for undersized crab violations for wholesale or retail dealers, implement a class 2 penalty without forfeiture of real property for the violation for the wholesale/retail dealer, and to change the undersize crab penalty for commercial fishermen from class 1 to class 2 without forfeiture of real property; require a crab harvester license costing $75 for residents and $300 for nonresidents and to dedicate these fees to a strike force for crab enforcement purposes;to impose a moratorium on commercial crab trap gear licenses;to amend and reenact R.S. 56:326(A)(i) pertaining to exemption of minimum size limits for premolt crabs held for soft crab shedding purposes; to enact R.S. 56:309 and to amend and reenact R.S. 56:345(a) to require a soft shell shedder's license and to provide for related matters; to mandate escape vents in all hard crab traps except for premolt traps with 1" mesh or less; to allow a 2% incidental catch of berry crabs for commercial fishermen; and to allow the use of "work boxes" for commercial crab fishermen, of which would not be subject to the minimum size limits while in possession aboard the vessel. Several research projects are underway including measure and weight of crabs, red drum predation impacts, and entrance tunnel and catch.

Texas - Tom Wagner reported preliminary landings for 1994 in Texas were 3.5 million pounds which was down from 8 million pounds in 1993. Wagner distributed commercial fishing guides and noted that there were no proposed changes for blue crab regulations. Wagner distributed descriptions of two projects including one on the shrimp industry salt-box catch separation procedure effect on bycatch survival and another to assess degradable qualities of four natural binding materials in construction of escapement panels on blue crab traps for use in Texas coastal waters.

Summary of Texas Sea Grant Workshops

Tom Wagner reported a series of crab fishery workshops were held in seven Texas cities. A wide variety of participants including harvesters, processors, and Vietnamese were in attendance. Aspects discussed at the workshops included biology of the crab, shedding (identification of peeler crabs), status of the fishery, and regulations of the fishery. Several members of the subcommittee also traveled to Mexico where a blue crab fishery is developing. While there, a crab shedding facility was visited.

Shrimp Bycatch Studies in Texas

Tom Wagner reported on a three-year bycatch study held throughout coastal Texas during May through December where 3-5 samples are taken per boat per day. Geographic/temporal comparisons are made; salinity, temperature, and dissolved oxygen are measured. The use of TEDs and BRDs was also noted. Information from the study is being summarized at this time.

User Conflict Symposium

The afternoon session of the TCC Crab Subcommittee meeting was held in the form of a symposium on conflicts in the Gulf of Mexico blue crab fishery. The following presentations were made:

User Conflicts in the Blue Crab Fishery - A Fisherman's Perspective	Sherman Siegmund St. Petersburg, FL
Conflicts in the Blue Crab Fishery - A Processor's Perspective	Keith Ashton Bo Brooks of Texas
Conflicts in the Blue Crab Fishery - An Enforcement Perspective	Bruce Buckson, FDEP Law Enforcement Division

Louisiana Blue Crab Industry - Conflicts with Other Natural Resource User Groups	Alan Matherne Fisheries Extension Agent
User Group Conflicts - Crab Fishermen in Alabama Waters	J. Stephen Thomas University of South Alabama

The subcommittee agreed that the symposium should be taped, and proceedings should be written and distributed to all interested parties. Tom Wagner agreed to transcribe and summarize the proceedings for publication. The subcommittee requested letters of appreciation be sent to all speakers.

There being no further business, the meeting adjourned at 5:00 p.m.

APPROVED BY:

David Ruple
COMMITTEE CHAIRMAN

TCC HABITAT SUBCOMMITTEE
MINUTES
March 14, 1995
Lake Buena Vista, FL

R. Leard called the meeting to order at 8:35 a.m. with following in attendance:

Members
Phil Steele, FDEP, St. Petersburg, FL
Penny Hall, FDEP, St. Petersburg, FL
Jim Duffy, ADCNR/MRD, Gulf Shores, AL
John Carlton, ADEM, Mobile, AL
David Ruple, MDMR, Biloxi, MS
Philip Bowman, LDWF, Baton Rouge, LA
Paul Coreil, LA Coop. Ext. Service, Sea Grant, Baton Rouge, LA
J. Dale Shively, TPWD, Austin, TX
Bob Spain, TPWD, Austin, TX
Edwin Keppner, NMFS, Panama City, FL
Larry Goldman, USFWS, Daphne, AL
Garland Pardue, USFWS, Atlanta, GA *(proxy for Gail Carmody)*

Staff
Rick Leard, GSMFC, Ocean Springs, MS

Others
Walter Tatum, ADCNR/MRD, Gulf Shores, AL
Captain Bill Higgins, Defense Logistics Agency, Washington, D.C.

Election of Chairman

D. Ruple volunteered and was unanimously elected as chairman.

Adoption of Agenda

L. Goldman moved and P. Bowman seconded that the agenda be adopted as presented, and the motion carried unanimously.

Review of Agencies' Programs

Each of the state and federal representatives on the committee reviewed their involvement in various marine habitat conservation activities both within their own agency and with other agencies/organizations/groups. *Because the review was somewhat impromptu, the subcommittee agreed that each member would develop a synopsis of the programs and activities in which they were involved and provide them to R. Leard by July 1, 1995.

Discussion of Goals and Objectives

The subcommittee reviewed the Habitat Program document developed by staff along with its goals and objectives. They noted that education should be a key component of the subcommittee's program and that where possible efforts should focus on the fishing community, i.e., fishermen, processors, dealers, etc. They also discussed educational materials (brochures, posters, films, etc.) that are currently available and agreed to develop a list of known materials to be put into a data base or publication. L. Goldman indicated that the EPA Gulf of Mexico Program office would be a good starting point for identifying materials, and *D. Ruple agreed to contact that office. *The subcommittee set a tentative deadline of July 1, 1995 for members to provide a list of materials to R. Leard.

The subcommittee discussed goals and objectives and tentatively identified a subcommittee goal as:

Promote conservation of marine fisheries by focusing on the relationship between quality and quantity of fisheries habitats to sustainable fisheries production.

Tentative objectives included:

(1) to identify habitat educational materials Gulf wide and to help coordinate its distribution;
(2) to identify target audiences for program activities (government personnel, fishing community, youth, general public, etc.); and
(3) to facilitate a "buy in" program by fishing groups and others to produce and distribute marine habitat educational materials.

Review of Present and Potential Funding Sources

R. Leard described present and future sources of funding that the GSMFC was currently seeking or receiving. He noted the need for the subcommittee to help identify other sources.

Program Implementation - Activities, Priorities, etc.

The subcommittee noted that identification of implementation strategies and activities should be delayed until the program goals, objectives, and activities are developed.

Other Business

B. Higgins discussed the REEFEX Program of the Department of Defense and asked the subcommittee for its support. It was noted that although the REEFEX program is a promising effort to increase reef habitat, the policy decision to support the program should come from the GSMFC. *P. Bowman moved to ask the TCC to recommend that the REEFEX program be placed on the agenda of the GSMFC which will meet in April in Washington, D.C. D. Shively seconded the motion which carried unanimously. It was also noted that there would be an opportunity to discuss the program with the ASMFC and the PSMFC which will be meeting in conjunction with the GSMFC.

*By consensus, the subcommittee adopted a position of support for continued fishery habitat conservation programs as efforts progress to streamline wetlands regulatory policies.

There being no further business, the meeting was adjourned at 12:15 p.m.

SEAMAP SUBCOMMITTEE MINUTES
Tuesday, March 14, 1995
Orlando, Florida

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

Members:
Joanne Shultz, NMFS, Pascagoula, MS
Jim Hanifen, LDWF, Baton Rouge, LA
Mark Leiby, FDEP, St. Petersburg, FL
Walter Tatum, ADCNR, Gulf Shores, AL
Richard Waller, GCRL, Ocean Springs, MS
Terry Cody, TPWD, Rockport, TX

Others:
Perry Thompson, NMFS, Pascagoula, MS
Buck Sutter, NMFS, St. Petersburg, FL
Joseph Smith, NMFS, Beaufort, NC
John Merriner, NMFS, Beaufort, NC
Steve Branstetter, GSAFDF, Tampa, FL

Staff:
Larry Simpson, Executive Director
David Donaldson, SEAMAP-Gulf Coordinator
Cheryl Noble, Staff Assistant

Adoption of Agenda

An update on the Red Drum Assessment will be presented under Other Business. With that change, the agenda was adopted as submitted.

Approval of Minutes

The minutes from the October 18, 1994 meeting and the November 7, 1994 conference call were approved as submitted.

Administrative Report:

Dave Donaldson reported that the Spring Plankton survey will take place March through May 1995. The purpose of the survey is to assess abundance and distribution of blue fin tuna eggs and larvae in the Gulf of Mexico. Vessels from NMFS and Florida will survey Gulf waters from Florida Bay to Brownsville, Texas.

The Reef Fish Survey is going into its fourth year and the purpose of this survey is to assess the relative abundance and compute population estimates of reef fish. Vessels from NMFS, Texas, Mississippi, Alabama and Florida samples inshore and offshore waters, in addition to plankton and environmental sampling. Randomly selected sites from Brownsville, Texas to Key West, Florida are chosen from known hard bottom locations.

The Summer Shrimp/Groundfish Survey will be conducted from March through July, 1995. The purpose of this survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. Vessels from

NMFS, Alabama, Mississippi, Louisiana and Texas will sample waters out to 50 fm from Mobile Bay, Alabama to the U.S./Mexican border.

D. Donaldson distributed the 1995 Marine Directory. The directory is an inventory of marine agency contacts (State, Federal and university) concerned with fishery research in the Gulf of Mexico. It also summarizes survey activities. The directory will be distributed to the GSMFC Commissioners and Proxies and the Technical Coordinating Committee. The 1992 Atlas and the 1994 Joint Annual Report have been completed and distributed.

D. Donaldson informed the Subcommittee that L. Simpson will be focusing on getting additional funds for SEAMAP during FY1996. He stated that a briefing packet has been developed with information on conducting a shark survey and for sampling oil and gas structures.

D. Donaldson stated that the NMFS Laboratory at Stennis Space Center (SSC) will not be closed. P. Thompson stated that NMFS, in order to save money, will start phasing out term employees and they will probably contract any work that has to be done. W. Tatum asked that if the SSC did close what would happen to the SEAMAP database. P. Thompson said it would probably be moved to the Pascagoula facility.

D. Donaldson said that the ASMFC has secured money to hire a full time SEAMAP Coordinator and the first duty of this person will be to coordinate the development of a Strategic Plan for SEAMAP. W. Tatum said that he has not had any contact with the South Atlantic or the Caribbean Chairmen since the last meeting and was wondering why he wasn't informed that they planned to proceed with writing the plan. D. Donaldson said he told D. Stephan that this is a joint program and all three components should be involved in writing the plan. D. Stephan is no longer the Coordinator for the South Atlantic and this may be why the Gulf component was overlooked. The Subcommittee felt that the South Atlantic Subcommittee should have kept the other two components appraised on the situation. W. Tatum stated that a letter will be written either from him as chairman or from the Commission to Jack Dunnigan stating the Gulf and the Caribbean components should be involved in writing the plan and they do not appreciate not being contacted. W. Tatum stressed that a lot of foresight needs to go into the new plan since most of the crisis that are being faced in the Gulf right now were not addressed in the 1990-1995 plan, so all components must be involved in the writing of the new plan. John Merriner informed the group that the ASMFC is in an upheaval due to restructuring their operation to accommodate the administration of the new Atlantic Coastal Fisheries Cooperative Management Act. He stated that maybe there was a misunderstanding or oversight on ASMFC's failure to inform the other SEAMAP components about the hiring of a new Coordinator to do the Strategic Plan but it probably was not deliberate. W. Tatum thanked him for this information and said they would tone down the letter to J. Dunnigan.

Funding Issues

D. Donaldson said L. Simpson is working on getting additional money, hopefully $600,000 to do a shark survey and a reef fish survey to sample oil and gas structures. The question of the allocation of this money came up. The question of will the money be just for the Gulf or the whole SEAMAP program was discussed. It depends on how the money is earmarked in Congress, so the Subcommittee agreed that the proposals should be developed so the Gulf will be prepared if the funding becomes available.

Work Group Reports

Adult Finfish

D. Donaldson said that there was an integrated shark survey meeting in Washington, DC on developing some type of shark sampling protocol. T. Henwood said he has not been contacted on the outcome of this meeting. To the best of their knowledge, there is $50,000 available for the NMFS Pascagoula Laboratory to do pilot work on a shark survey. R. Waller said T. Henwood sent him a memo inquiring about the availability of boats, personnel,

etc. to do work. They discussed the possibility of using small boats which would cost approximately $300/day as compared to $3,000/day for the larger boats and they will probably use surface long-lines. Everyone agreed that eventually shark data will be a high priority for NMFS and the Work Group should develop a sampling protocol. It was decided that D. Donaldson will set up a conference call of the Adult Finfish Work Group to discuss this issue.

Environmental Work Group

P. Thompson reported the Environmental Work Group met on March 7 and that all the members of the Work Group attended. The main focus of the meeting was chlorophyll sampling techniques. Presently, there are two independent techniques for collecting chlorophyll or providing measurements of chlorophyll at the SEAMAP environmental stations. Those being the standardized laboratory extraction technique and the fluorometric technique.

He stated the extraction technique is very costly in terms of personnel and if the samples are not analyzed before a six month period, degradation of the samples occurs. This technique also can have a high margin of error. With the CTD fluorometer, the information automatically goes into the computer system so there is less error and no degradation of the samples occurs. Rob Ford at the Pascagoula Laboratory analyzed both techniques to determine if a correlation exists between chlorophyll samples taken by the CTD and those using the extraction technique. It appears that basically the two methods are the same but the extraction technique has a greater variation due to the fact that sometimes the sample is not taken at the same place the CTD is dropped. He said that sometimes the person taking the chlorophyll sample does so before the boat has stopped. The sample may be taken some 50-100 yards away from the actual CTD drop so that may be why there is some variation between the two techniques.

The first recommendation from the Work Group to the Subcommittee is that NMFS discontinue the extraction procedure for chlorophyll sampling at each of the SEAMAP stations. Instead, use a CTD flourometer to obtain the chlorophyll data. For calibration purposes, NMFS will continue with the extraction technique once a day at noon over the range of the expected concentrations. Since most of the states don't have CTDs or fluorometers, they will continue with the extraction technique and then NMFS would analyze those samples.

The next recommendation to the Subcommittee is to ask all participants to send their chlorophyll samples to the NMFS Pascagoula Laboratory at the end of each cruise as soon as possible. The Work Group discussed chlorophyll and salinity sampling procedures, and decided that when the CTD is put over there will be a Niskin bottle attached to it. When that Niskin bottle is tripped, the exact depth and value is recorded plus the flourometer reading is recorded. Also, NMFS is exploring the possibility of changing the lab extraction technique from acetone-based to methanol-based. This method is quicker and more accurate. On some cruises, the methanol method could be used on board if there is a fluorometer available.

The Work Group asked the SEAMAP coordinator to investigate and present to the Work Group or Subcommittee, a listing of who uses the SEAMAP environmental data. There has to be some way to let more people know about the availability of SEAMAP data. P. Thompson said the Atlas is a good source and maybe put some information into the marine directory. SEAMAP could also send out press releases, newsletters or advertise on Internet.

The next recommendation is to revise the SEAMAP Environmental Data work sheet. This sheet has been used for 13 years and is outdated. The Work Group agreed to meet with the Data Manager to discuss changes.

On the subject of standardization/calibration of environmental gear, the Work Group recommends that all SEAMAP participants who do not have a CTD to consider purchasing one. P. Thompson said they realize it is expensive but funding for this is something they feel the Subcommittee should address. If possible, the states could borrow one from another source.

J. Hanifen said to change the technique for chlorophyll sampling may cause some drastic change to the long term database so he feels uncomfortable with making this change without very careful thought. R. Waller stated that he didn't think anyone was aware of the degradation problem so if the samples are no good the extraction method isn't working anyway. J. Hanifen offered to help NMFS analyze the samples. J. Hanifen stated also that when using CTDs you have a high cost for disposal. W. Tatum said you can flag in the database the year and cruise in which this technique started but it sounds like we may have to change or have nothing at all.

* After a lengthy discussion, R. Waller moved to accept the Environmental Data Work Group recommendations. J. Hanifen said that the more information we have to develop a calibration between the two methods the more comfortable he'd feel. Terry Cody offered a substitute motion to accept the Work Group recommendations and in addition, NMFS will conduct a study where several samples (throughout the day) will be collected to compare and correlate the two chlorophyll collection methods. The substitute motion was seconded and passed unanimously.

Data Management Report

K. Savastano submitted a Data Management Report (Attachment I) to the Subcommittee. The major accomplishments since October 1994 are as follows:

Status reports from SEAMAP years 1982-1994 are in Attachments 1-10 of the Data Management Report. All cruise data have been reformatted to SEAMAP versions 3.0 or 3.1. Data processing of 1994 Gulf data and 1993/1994 Caribbean data is in progress. Reprocessing of some of the 1982-1988 Gulf data is also being performed.

Processing of the 1993 SEAMAP Atlas will continue upon completion of the conversion of the Atlas software from the UNISYS A-10 system to the Silicon Graphics, Inc. (SGI) system.

One hundred and fifty SEAMAP requests have been received and one hundred and forty-eight requests have been filled.

The capability of accessing the SGI using INTERNET has been added. There is a continuing software effort in modifying the SEAMAP Data Management system to run on a SGI mainframe/unix operating system in Miami (NMFS IT-95 system). He recommends that any state who has an option should get on internet.

The SEAMAP on-line data base now contains 253 cruises with a total of 1,760,276 records which is approximately 68 megabytes of data.

K. Savastano then informed the Subcommittee that they will be losing a data entry/key punch/editing type person and does not think that she'll be replace. He gave all information to the program manager informing him how losing this person would negatively impact the SEAMAP. If this person is not replaced, re-entering the old data will cease. The high priority will be on new cruise data. It was suggested that maybe each state could re-enter their own data. He also pointed out that the Virgin Islands,the Caribbean leg of the SEAMAP system is coming in now.

Reef Fish Work Group

R. Waller said that he, D. Donaldson, J. Hanifen and R. Kasprzak met to plan the Reef Fish Workshop. The purpose of the workshop is to develop a sampling protocol for reef fish on vertical man-made habitats. He stated they have invited a very impressive list of people to give presentations on work they have done around oil and gas platforms, and so far only three people has declined. The tentative dates for the work shop are April 26-27 at the Louisiana Department of Wildlife's Lyles St. Amant Marine Laboratory in Grand Terre, Louisiana. On the first day of the work shop the invited speakers will give a 20-30 minute presentation with a question/answer session. On the second day, the work group will meet and discuss the presentations, then try to develop a proper protocol. He said Louisiana is paying for the overnight accommodations at the dormitory so please let them know as soon

as possible if you will be attending. Also, they asked the presenters to submit their presentation by hard copy or diskette and a proceedings on the workshop will be published.

He also told the Subcommittee that the Work Group has been reading tapes from 1994 and they have had a lot of discussion on the techniques to use when reading these tapes. They are trying to decide if they should use the minimum count versus the maximum count in reading the tapes.

Other Business

Red Drum

J. Shultz informed the group that Scott Nichols said that $230,000 is available for red drum work and the Red Drum Work Group should decide the best way to use the money. W. Tatum stated he heard the money was available with a preference on age analysis. D. Donaldson said the money was earmarked in Congress for red drum work for an aerial survey and hopefully money will be available in subsequent years to duplicate the S. Nichols, et al. 1987 study but there is no guarantee. W. Tatum said he believes the money will only be available for this year so we should get as much information as possible with the $230,000. The administration of the money is not clear so B. Sutter will investigate and then contact W. Tatum and the Subcommittee will have a conference call to decide how to direct the Red Drum Work Group to proceed.

J. Merriner informed the Subcommittee of an upcoming AFS meeting with a Gulf of Mexico focus. He felt this would be a perfect opportunity to inform participants about SEAMAP and the data that is available. He said to receive more information on the meeting, contact Tom McIlwain or Herb Kumpf.

There being no further business, the meeting was adjourned at 5:20 p.m.

APPROVED BY:
COMMITTEE CHAIRMAN

TCC ANADROMOUS FISH SUBCOMMITTEE
MINUTES
Tuesday, March 14, 1995
Orlando, Florida

Chairman Doug Frugé called the meeting to order at 9:05 am. The following were in attendance:

Members
Norman Boyd, TPWD, Port O'Connor, TX
Jim Duffy, ADCNR/MRD, Gulf Shores, AL
Douglas J. Frugé, USFWS, Ocean Springs, MS
J. Alan Huff, FDEP, St. Petersburg, FL
Charles Mesing, FGFFC, Tallahassee, FL
Larry Nicholson, GCRL, Ocean Springs, MS
Tom Serota, USFWS, Corpus Christi, TX
Gary Tilyou, LDWF, Baton Rouge, LA

Staff
Ron Lukens, Assistant Director
Nancy Marcellus, Administrative Assistant

Others
Jim Clugston, NBS, Gainesville, FL
John Merriner, NMFS, Beaufort, NC
Garland Pardue, USFWS, Atlanta, GA
Paul Perra, NMFS, Silver Spring, MD
Gary Reinitz, USFWS, Washington, DC
Buck Sutter, NMFS, St. Petersburg, FL

Adoption of Agenda

The agenda was adopted with the addition of a discussion regarding striped bass caps to be addressed under other business.

Approval of Minutes

The minutes of the meeting held October 17-18, 1994 in New Orleans, Louisiana, were approved with the following correction by D. Frugé. Under "Other Business", 2nd paragraph, the first sentence should read: "D. Frugé asked whether the Alabama Shad status report is complete." Another sentence should be inserted following that to read: "Gail Carmody responded that the report is complete in draft but not yet finalized due to other priorities."

State-Federal Reports/1995 Projects

U.S. Fish and Wildlife Service - D. Frugé reported that the Sabine River project is basically complete. The final report is near completion and will be sent to Subcommittee members upon completion. The FWS will be working in the Spring of 1995 with the states to produce Gulf race fry and fingerlings. A tentative production and distribution schedule and goals list was developed at the Morone Workshop in Chattahoochee, Florida in February. The Gulf Coast Fisheries Coordination office recently put together a letter going out to all licensed commercial fishermen in coastal Mississippi urging them to report incidences of capture of Gulf sturgeon to the Panama City office. Panama City also issued similar letters to fishermen in Florida, Alabama, and Louisiana. No responses have

been received at this time. Plans are to produce the first issue of the anadromous fish newsletter this summer. The status of the FWS budget initiative is basically the same as last fall. Work is continuing in Panama City on the radio/sonic fish tag. The radio portion of the tag is done but problems continue with the sonic portion. No time frame was given for completion. The Panama City office is planning to operate their portable sturgeon spawning facility again this spring.

Frugé reported on proposed hatchery closings. Seven hatcheries are proposed to be shut down by the next fiscal year. Two of those, Carbon Hill and Meridian, could affect striped bass production.

Mississippi - L. Nicholson reported that Mississippi had a good year with stocking efforts. Although they did not receive Gulf race fish, they stocked what they assumed were Atlantics, tagged with t-bar tags, in the Pascagoula and Pearl Rivers. No fish loss was documented during stocking. Egg and larval sampling in the Bouie River was started last week, and electrofishing was conducted the week before that. Funding was received from National Marine Fisheries Service to conduct some field sampling and Wallop-Breaux funds are being used for culturing.

Louisiana - G. Tilyou reported that work is continuing on the sturgeon monitoring and telemetry study in the Pearl River. The hatchery system for stocking coastal streams has stocked about 300,000 Phase 1 striped bass, but no follow up sampling has occurred. In addition to those, stocking is also taking place in Indian Creek. Tilyou also reported that they let $9,000 of NMFS funds for egg and larval and fingerling surveys revert due to paper work involved in receiving the funds.

* A. Huff made the motion that the Subcommittee through the Gulf States Marine Fisheries Commission write a letter to the Louisiana Department of Wildlife and Fisheries urging that they protect the Indian Creek striped bass through implementation of the 18 inch conservation measure which the Commission recommends for striped bass. The letter will stipulate the prioritized status of the fish and the original purpose for stocking, which is brood stock development. The motion was seconded by T. Serota and approved unanimously.

Texas - N. Boyd advised that there was not a lot of activity to report regarding striped bass. Texas does not intend to stock any striped bass in coastal waters this year. Pending availability of fish, plans are to stock two reservoirs to conduct a study of gulf and atlantic fish side by side.

Florida - A. Huff reported that their redfish hatchery is continuing to spend about one million dollars a year to produce about a million fish for stocking. The greatest portion of those are Phase 1 fingerlings. Contractors at the University of Miami are doing a fishery dependent and a fishery independent assessment of the efficacy of stocking redfish in Biscayne Bay. There is great support for restoration of a redfish fishery in Biscayne Bay since a redfish fishery used to exist, and the residents want it. Work is also starting on a snook restoration study.

C. Mesing discussed reorganization within his agency and his inability to participate at a normal level with GSMFC due to the loss of two employees to another project. Plans are to finish studies with on the Gulf and Atlantic comparison. It will probably be moved under another study involved with striped bass restoration on the Apalachicola. He indicated that they recognize that if there are to be any striped bass they will have to be stocked each year. The goal is to manage for trophy striped bass. In 1993 the record was broke with a 42 pound fish, and it is only through stocking efforts that these fish are in the system. Some habitat restoration has been completed with the opening of 60 miles of cold water habitat within the system from a dam removal. In the last three years Florida has moved to this Phase 2 program and that study will end in 1996. At that time a decision will be made regarding the continuation of stocking of striped bass at the coast. Florida is involved with the FWS and the states of Alabama and Georgia on the ACF and that decision will be made in concert with the other cooperating members.

GSMFC Sport Fish Restoration Administrative Program

1994 Genetics Samples - R. Lukens reported that 1994 DNA analyses from Ike Wirgin should be received soon. The goal of getting 300 samples was not met this year. The GSMFC has purchased a new computer to house a data base on striped bass. A copy of the data elements needed for the striped bass DNA data base was distributed to Subcommittee members.

1995 Genetics Samples - Lukens indicated that the 1993 and 1994 subcontracts with Dr. Wirgin to analyze DNA samples were worded such that the funds would be paid in full no matter how many samples were provided for analysis. He said he intends to revisit that language such that funds paid is more reflective of samples analyzed. Because of this current situation, he stressed the need for the state and federal agencies to get as many samples as possible for analysis by Dr. Wirgin.

Status of Pearl River Dredging Project

D. Frugé reported that the Corps of Engineers is preparing a supplemental EIS on the west Pearl River navigation project to cover a proposed Section 1135 project, which is COE environmental enhancement funds, to address the low flow controversy between the east and west Pearl Rivers. On February 8 of this year the USFWS rescinded their biological opinion on the west Pearl River project. They were told to resubmit the new document in three weeks, which they did. It is at the regional level being reviewed at this time. It is unclear why it was rescinded but the project biologist reported that in the rewrite they included the Section 1135 proposed project. The FWS has maintained that the two projects are linked and are not independent projects, a notion supported by the proposed project. The project has not been approved yet by the COE. If this project is not approved, the Mississippi state water quality certification for the navigation project will be withdrawn, which would block completion of the navigation project. In any case the FWS in Vicksburg does not think there will be any construction started this year.

The monitoring program the COE has initiated is continuing, having captured two juvenile sturgeon in the river. They are sampling every two weeks. The Ecological Services office is encouraging them to sample more frequently at this time of the year, weekly at least. The Mississippi Museum of Natural History in Jackson, MS has received a Section 6 grant to do a radio telemetry study for Gulf sturgeon on the Pearl River.

Status of Gulf Sturgeon Recovery Plan

A copy of the final revision of the Gulf Sturgeon Recovery Plan was distributed to Subcommittee members. At the October 1994 GSMFC meeting the Technical Coordinating Committee tabled action concerning the Plan until the public review comments were addressed. Significant changes to the Recovery Plan since the public review are as follows:

1. The Extant Occurrences section has been reworked and reorganized so that it is easier to use as a reference.

2. The Recovery Criteria has been revised to provide a better method of assessing recovery. The objectives remain similar to previous drafts.

3. The recovery tasks have been reprioritized in accordance with internal FWS policy. There should not be many priority 1 tasks for a threatened species. Priority 1 tasks are to prevent extinction or the need to upgrade species status to endangered. This will be indicated in the Implementation Schedule.

4. In the Habitat Degradation section, the "barriers to migration" narrative has been revised to address comments generally centered on the Pearl River. The contaminants narrative has been expanded because of final study results availability.

5. The Incidental Catch section has been revised, clarified, and reworked to provide a better summary of available information.

This final draft of the Gulf Sturgeon Recovery Plan is being sent up through the FWS hierarchy and at the same time is going through the GSMFC approval process.

* A. Huff made the motion that the Subcommittee reaffirms their original position supporting the Recovery Plan. The Subcommittee also supports the changes due to public review comments and elects to send it forward to the TCC for their approval. The motion was seconded by L. Nicholson and passed unanimously.

Morone Workshop Report

C. Mesing reported that Ike Wirgin gave the preliminary results from the preserved DNA fish from the Apalachicola River that were collected and preserved prior to any Atlantic coast stocked fish on record. His analysis showed that of the 74 fish for which he has data, 55% have the unique XBA2 marker, and 45% have the XBA1 marker that is seen on the Atlantic coast. His conclusion was that it appears that the 1s have always been here and that there does not appear to be any introgression of any significance of mitochondrial DNA genotypes into the system. It does not mean that there has not been any introgression of Atlantic and Gulf fish in the system, it means that the percentage of 1s which are common along the Atlantic coast has not increased significantly since the 1s from the Atlantic coast were introduced in the early 1960's and 70's. There is no longer the need to select against these 1 genotypes that were avoided in the past.

Another discussion at the workshop was Florida's concern that the fish received from the FWS are not surviving in the wild. Since the fish are grown in soft water Florida does not feel they will survive when put in a natural system. Florida will be looking at different options for future needs.

D. Frugé discussed priorities for distribution of 1995 fry and fingerling. Numbers set at the morone workshop consist of approximately 2,175,000 Phase 1 fish which includes 150,000 Phase 1 fish or 500,000 fry for Lake Waco in Texas; 32,000 Phase 1 or 16,000 Phase 2 for Indian Creek in Louisiana; and 500,000 fry for the Pascagoula and Pearl Rivers and 500,000 fry for the Ross Barnett Reservoir in Mississippi. A table of 1994 Gulf of Mexico striped bass stocking was distributed to Subcommittee members.

Lake Talquin Project Presentation

C. Mesing presented a slide presentation for the Subcommittee on the status of the Lake Talquin project. The project, which is in its 5th year, involves a comparative test of growth and survival of gulf and Atlantic striped bass in Lake Talquin, Florida. A copy of the status report will be sent to the Subcommittee when it becomes available.

Discussion of a Gulf-wide Striped Bass Project

D. Frugé told the Subcommittee how MICRA was recently successful in obtaining Federal Aid in Sport Fish Restoration administrative funds to conduct a cooperative project on paddlefish in the Mississippi River system. They will receive $200,000 to be divided among 17 states. Frugé advised that this may be a good avenue for funding of a cooperative project on striped bass. The Subcommittee agreed to pursue this as a five state joint project rather than a Commission project and to focus on a restoration project for a specific river system. After much discussion the Subcommittee agreed to submit a project for restoration of anadromous striped bass in the Pascagoula River in Mississippi. The project will result in a multi-state cooperative effort to restore a self-sustaining population of anadromous striped bass in the Pascagoula River. Efforts will focus on: evaluation/restoration of habitat; assessment of striped bass population characteristics; evaluation/continuation of restoration stocking; and evaluation

and potential modification of harvest regulations. Deadline for submission of proposals is June 1 so Frugé advised that he will develop the proposal and send it to Subcommittee members for review and approval.

Discussion of 1996 Subcommittee Work

R. Lukens advised that he will be submitting the 1996 work plan under the Federal Aid in Sport Fish Restoration administrative program prior to the June 1 deadline. 1995 represents the final year of the three years which were planned for the DNA survey to get an idea of the distribution of genotypes across the Gulf. Through a separate grant, analyses are being completed on the archived samples. In an effort to close the circle and complete the genetics work, plans are to contract with Ike Wirgin from New York University Medical Center to examine the nuclear component of the archived striped bass samples.

Gary Reinitz from the FWS Federal Aid office in Washington, DC discussed new guidelines for submitting multi-year projects for Sport Fish Restoration funds.

Other Business

R. Lukens announced that many boxes of striped bass caps are still available at the GSMFC office for those states which may need them.

Several Subcommittee members expressed an interest in having Ike Wirgin from the New York University Medical Center attend one of the future GSMFC meetings to give a presentation on results from the striped bass DNA study. Lukens advised that he would look into it.

Lukens requested that Subcommittee members save otoliths from striped bass for future age studies. Any state which has the capabilities to age these samples are advised to contact Lukens. L. Nicholson will check on possibility of capabilities at the Gulf Coast Research Laboratory.

G. Reinitz distributed brochures on regional Sport Fish Restoration projects which were produced by IAFWA using Sport Fish Restoration funds. Anyone desiring extra copies for specific needs can contact Mark Reef at IAFWA.

There being no further business the meeting adjourned at 4:00 pm.

APPROVED BY:

COMMITTEE CHAIRMAN
Oct. 23, 1995

TCC DATA MANAGEMENT SUBCOMMITTEE
MINUTES
Wednesday, March 15, 1995
Orlando, Florida

Chairman Skip Lazauski called the meeting to order at 9:00 am. The following members and others were present:

Members
Skip Lazauski, ADCNR/MRD, Gulf Shores, Alabama
Page Campbell, TPWD, Rockport, Texas
John Poffenberger, NMFS/SEFSC, Miami, Florida
Phil Bowman (for Joe Shepard), LDWF, Baton Rouge, Louisiana
Tom Van Devender, MDMR, Biloxi, Mississippi

Staff
David Donaldson, SEAMAP Coordinator
Ron Lukens, Assistant Director
Larry Simpson, Director

Others
Buck Sutter, NMFS/SERO, St. Petersburg, Florida
Paul Perra, NMFS/HQ, Silver Spring, Maryland
Dan Furlong, NMFS/SERO, St. Petersburg, Florida
John Merriner, NMFS/SEFSC, Beaufort, North Carolina
Richard Waller, GCRL, Ocean Springs, Mississippi
Joe Smith, NMFS/SEFSC, Beaufort, North Carolina

Adoption of Agenda

The agenda was adopted without objection with the following addition: 1) Lazauski/Poffenberger asked for a discussion of how commercial fisheries landings are accounted.

Approval of Minutes

T. Van Devender indicated that the MDMR intended to purchase only one electronic measuring board rather than several as indicated by the minutes. Without objection, the minutes of the October 1994 meeting were adopted with the above correction.

State/Federal Reports

Texas - Page Campbell reported that the Texas State Legislature is meeting (they meet every other year), with their biggest issue being limited entry for the Texas inshore shrimp fishery. It is likely to be a license limitation bill. Also, there is now a provision to allow those individuals who are exempt from the marine recreational fishing license to obtain a red drum tag, which could only be obtained if a person held a license. There is a $6.00 fee to get the exempt red drum tag. A recreational/commercial fishery bycatch study and report has just recently been completed. The report will undergo peer review, and will be available after that. Trip intercepts continue, with interviews of the inshore fishery being conducted during 1994. A mesh-size trawl comparison study is being conducted to test the effects of varying mesh size on the shrimp catch.

Van Devender asked about where the shrimp limited entry program would be in effect. Campbell indicated that it would be in effect in all Texas jurisdictional waters. Van Devender asked if Texas requires different mesh sizes for different trawl fisheries. Campbell indicated that the mesh size during the white shrimp season is 1 3/4 inches, and is different for brown shrimp and bait shrimp. Van Devender asked Campbell and Bowman if Texas or Louisiana has any regulation prohibiting bib trawls. Campbell and Bowman both indicated that no such regulation exists in either state.

National Marine Fisheries Service - John Poffenberger indicated that the National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC) is continuing to work toward converting the Burroughs A-10 files to the new computer hardware. All systems are being converted into the new Oracle data base management system. The software development group is now working on report generating programs that allow access to the data in other than raw form. Following this effort, the second phase will begin, which will be the implementation of the Southeast Fisheries Information Network (SEFIN). Poffenberger did not have a set time table for completion of these activities, and indicated that the data base conversions had taken a little longer than anticipated. He reported that training is now underway in the SEFSC for NMFS personnel to use the Unix system and the Oracle software. Poffenberger indicated that he is very encouraged with their progress and with the system as a whole.

Poffenberger reported that he is currently working on red snapper, tracking landings reports. Also, shark quotas continue to be monitored. The information is coming directly from the dealer, rather than relying strictly on port agents. He said that the SEFSC is moving in the direction of a dealer based reporting system, indicating that it is less costly. Snowy grouper, tilefish, and king mackerel are handled this way.

Poffenberger reported that Brad Brown, SEFSC Director, has responded to the request from the Southeast Cooperative Statistics Committee's (SCSC) to look into the prospect of holding periodic port agent meetings. The concern is that the annual Cooperative Statistics Program (CSP) Workshop, typically held in June, has been subsumed by the two SCSC meetings as per the CSP Framework Plan, and the Florida port agents routinely held meetings at that time. The SCSC wants to assure that port agent information and input is available to the SCSC in its deliberations. Poffenberger reported that Brown has asked the port agent supervisors to schedule port agent meetings, which will be open to interested individuals from the SCSC and the Southeast Recreational Fisheries Information Network [RecFIN(SE)] Committee. The meetings will be area specific, to hold down travel costs and to focus on issues specific to given areas. He reported that Margot Hightower is now the supervisor for Texas and Louisiana, since Lee Usey has retired. Also Guy Davenport has responsibility for the remainder of the Gulf States.

As result of government downsizing, several NMFS port samplers have been lost and cannot be replaced as NMFS employees. Poffenberger indicated that the SEFSC is working with the Florida Department of Environmental Protection to hire individuals to conduct headboat sampling. They are also working with the Texas Parks and Wildlife Department to hire samplers for that area. Finally, he indicated that the NMFS is attempting to match Trip Interview Program samples with the General Canvas data, to more accurately reflect the proportion of samples to the distribution of landings across species and area. A draft set of guidelines will soon be distributed to the samplers for input. An important point is to record where fish are actually landed as well as where the samples are taken. In some cases those are different locations.

Louisiana - P. Bowman indicated that Joe Shepard, regular Subcommittee member, was ill and would not be attending the meeting, and that Bowman would be his proxy. Bowman reported that the Louisiana Department of Wildlife and Fisheries (LDWF) and LSU Sea Grant are in the process of publishing a picture identification guide for marine and estuarine fish of the northern Gulf of Mexico. The final document is ready for publishing, and should be available by the end of the year. The commercial spotted seatrout season recently closed based upon projections that the one million pound quota would be reached. The LDWF recently conducted an age and growth workshop at the marine lab. Scientists from LSU participated in the workshop regarding sectioning otoliths. Joe Shepard has just completed an internal program review of the data management program for the marine fisheries division. The Louisiana legislature is scheduled to open on March 21. 1995 is an odd numbered year, and according to the

legislative rules, any bill is acceptable; whereas, on even numbered years there can be only fiscally related bills introduced. There are currently several bills poised to be introduced that relate to fisheries management, including a bill to ban gill nets in Louisiana state waters. In the past several weeks, Louisiana has experienced the lowest tides in many years. This phenomenon, if persistent, could have significant impacts on living marine resources. The LDWF will continue monitor the situation. Lukens asked if there were any moves within the legislature to fund the trip ticket program for which the LDWF received authorization to develop. Bowman indicated that there is nothing being introduced for this legislative session to fund that program.

Mississippi - T. Van Devender indicated that as of December 1994, the Department of Marine Resources (MDMR) has a new executive director, Mr. Glade Woods, formerly an employee of NOAA at the Stennis Space Center in Mississippi. In November, the MDMR began responding to proposals from local city and county governments to ban gill nets in state waters. The MDMR indicated that the landings nor fishery independent data showed a decline in the numbers of the several species of concern, including striped mullet, spotted seatrout, and red drum, thus banning gill nets on the basis of a concern for conservation of those resources is unwarranted. Two public hearings were held, and following much debate and discussion, the MDMR Commission voted down a gill net ban proposal. A compromise proposal was offered and adopted by the MDMR Commission. That proposal included time and area closures, among other measures. Following the gill net issue, the MDMR was confronted with a proposal from the National Park Service/Gulf Islands National Seashore to ban commercial fishing and vessel activity within one mile of the islands making Gulf Islands National Seashore offshore Mississippi. Since the establishment of the Seashore, the National Park Service has had the authority to enact such a ban; however, it was not until recently that it has been seriously considered. There are a number of concerns related to this proposal, which will be considered during public hearings in the near future. There was a proposal from the MDMR Commission to ban all commercial fishing activities in the bays of Mississippi, including bait shrimp fishing and trap fishing for crabs. That issue will also come up for public hearing in the near future. All of these issues are the subjects of bills that have been introduced by the Mississippi legislature during the current session. A gill net ban bill was defeated, passing the Senate and failing in the House. Mississippi has begun sampling red snapper otoliths. The first of October 1994, the Mississippi red drum commercial fishing season opened with a 35,000 pound quota. That fishery closed on December 22 or 23, 1994. Due to stringent regulations imposed on commercial and recreational red drum harvest, size and abundance of the fish have been increasing. As a result, each year that the quota has been in effect, it has been reached and closed earlier and earlier. The current oyster season is good, with the harvest exceeding 200 thousand sacks. Opening oyster harvest for the entire year is being considered by the MDMR Commission. That has never been allowed in Mississippi. There are some concerns, particularly related to occurrence of vibrio during the summer, and the Food and Drug Administration's related proposal to restrict the sale of oyster from the Gulf of Mexico that are harvested in the summer months. The MDMR is cooperating with the Gulf Coast Research Laboratory to identify crab fishermen, how many are permitted, and how many crab traps are being fished annually. Finally, there is a movement in the state to ban the use of bib trawls in Mississippi waters.

Alabama - S. Lazauski indicated that the gill net ban movement has been very active in Alabama, as in other states. The Department has been working with commercial and recreational fishing groups to reach a compromise. Much discussion has taken place, and the issue will be addressed again in two or three weeks with the Department's Advisory Board. At that meeting, the Department scientists will provide data and information to the Board at that time. Lazauski indicated that the Department is gathering data relative to tracking the commercial quota for red snapper, also collecting otoliths. He pointed out that some landings are loaded on trucks and transported out-of-state where the landings may or may not be counted. The landings are not, however, counted in Alabama, the state in which the fish were actually landed. This problem affects the level of funding that a state receives from the Interjurisdictional Fisheries Act program. This topic will be discussed in more detail later in the agenda. The Department is prepared in May for a test run of the automated commercial saltwater fishing license system. This system should result in significant administrative savings of time and money. It will be especially beneficial during periods of heavy license traffic. This will also provide and instantaneous data base of licenses from the three offices that will be using the system. The problem is that about 50% of licenses are sold through vendors that will not be

tied into the system. Those licenses will continue to be handled by hand. There was a discussion regarding budgets and funding items, including the Cooperative Statistics and Sport Fish Restoration Federal Aid funding. Alabama is very interested in implementing a trip ticket system; however, there are no funds support such a program. Alabama continues to use electronic communication through CompuServe and the Internet. The Department is working on ways to become hooked up directly to the Internet. Currently, they can use CompuServe to send messages through the Internet. D. Donaldson asked if there is interest within the Department in automating the licensing vendors. Lazauski indicated that Commissioner Martin is interested in automating the system state-wide, and will be pursuing ways to do that. Commissioner Martin has also initiated a new program called "Quest for Excellence," which solicits confidential reports from all Departmental employees for recommendations on making the Department better and more efficient. Various committees will be formed to review recommendations and ways to implement those that have merit.

RecFIN/ComFIN Discussion

ComFIN MOU - Chairman Lazauski asked Lukens about the ComFIN Memorandum of Understanding (MOU). Lukens explained that the item had been put on the agenda prior to the decision of the Southeast Cooperative Statistics Committee (SCSC) to postpone finalization of the ComFIN MOU until after the RecFIN program review, because it was decided to seek a single MOU that would cover both ComFIN and RecFIN. Lukens indicated that he would provide a report to the State-Federal Fisheries Management Committee at their meeting in April in Washington, D.C. that describes the action taken by the SCSC. This will give the State Directors an indication of what to expect regarding a future need to sign the joint MOU. Lukens asked the state representatives on the Subcommittee to brief their directors on the issue prior to the April meeting.

Lukens then explained the origin of the RecFIN program review and the current plans for the review. He indicated that as a provision of the NMFS approval of the RecFIN MOU and pilot program, Dr. Bill Fox, then-NOAA Assistant Administrator for Fisheries, asked for an outside program review conducted during the third year of the pilot phase. Lukens indicated that the review is not intended to potentially stop the program, but rather to evaluate the progress and provide recommendations for how to make the program better.

Churchill Grimes, as Immediate Past President of the Marine Fish Section of the American Fisheries Society, agreed to coordinate the RecFIN program review. Dr. Bob Ditton of Texas A&M University, Dr. Cynthia Jones of Old Dominion University, and Mr. John Harville, past Executive Director of the Pacific States Marine Fisheries Commission, have agreed to serve as the review team. The review meeting will be held in Panama City, Florida, at the NMFS Laboratory.

GIS Proceedings

Lazauski indicated that the Proceedings of the Geographic Information Systems for Fisheries workshop has been completed in final draft. He then gave a brief overview of the GIS workshop. Lukens indicated that the Florida Marine Research Institute (FMRI) has expressed an interest in publishing the GIS proceedings through their new technical publications series. He is working with them to coordinate that activity. Lazauski suggested that it may be beneficial to have a work group for GIS formed to provide expertise and guidance to the states and federal agencies as GIS becomes more prevalent in routine operations. There was a brief discussion of that suggestion, and general agreement that such a work group would be useful.

Lukens indicated that Peter Rubec, now of the FMRI, and Joe O'Hop, FMRI, had taken the lead in developing the GIS Symposium and completing the proceedings. Rubec did the bulk of the coordination of the proceedings, and Lukens asked that the record recognize their contribution to the success of the activity. He then indicated that Rubec asked that the draft proceedings not be distributed to anyone outside the Subcommittee, in anticipation of the document being published.

As a follow-up discussion, Lazauski suggested a future workshop to explore electronic communications and how that communications method can be applied to the work of the states and federal agencies. Following a discussion of that suggestions, it was decided that an electronic communications workshop or symposium would be sponsored during 1996. Lukens indicated that that would be a good time frame, because it would allow him to budget for the activity. J. Poffenberger and Lukens agreed to plan and coordinate the activity.

Confidentiality MOA

Lazauski introduced the issue that has been ongoing since 1993, when the GSMFC Memorandum of Agreement (MOA) on Data Confidentiality was adopted and signed by Texas, Louisiana, Mississippi, and Alabama. Due to a legislative conflict the Florida Department of Environmental Protection has been unable to sign the agreement. Lukens indicated that the Department was unable to get the language included in any piece of legislation for the 1995 legislative session. Consequently, the issue will have to wait another year for another attempt. Lukens made reference to the confidentiality work session which was a part of the February 1995 ComFIN meeting in Jacksonville, Florida. He noted that the participants of the work session were interested in the GSMFC MOA as a model for expansion to the Atlantic coast. Lukens concluded that he will be completing the minutes of the confidentiality work session in the very near future for the review and comment of the participants.

In regards to accessing confidential data from the SEF Host (the name of the SEFSC computer system) J. Poffenberger indicated that all qualified state or other personnel will need to apply for an access user code. This is the controlling mechanism that will allow confidential data users to have full access to the data. Also, Poffenberger suggested that an explanation and demonstration of the access system could be on the agenda for the RecFIN/ComFIN meeting scheduled for September in Miami. He also explained that the ORACLE system is not like the old A-10 system. This means that getting to data will be easier, especially using the structured query language (SQL), which is the data base management language of ORACLE that will allow retrieval of data out of the SEFIN (Southeast Fisheries Information Network) data base. The down side is that people may be able to get data that they don't understand, or access confidential data without knowing that those data are confidential. He indicated that they are working on a set of standard querys that will identify confidential data for those who have access to the data but may not realize that the data they accessed are confidential.

Stock Assessment Training Workshop

Lukens informed the Subcommittee that the 1995 stock assessment training workshop has been scheduled for May 31 through June 2. He directed the members' attention to the letter from Dr. Bob Muller, the instructor for the workshop, regarding his description of the subject matter the workshop will address. Finally, he pointed out that the participants in the workshop will have to be identified soon, in order to make the sleeping room and computer facility arrangements.

Lukens indicated that in the past the workshops were supported through the GSMFC Sport Fish Restoration Administrative Program, but that the 1995 workshop is being supported by a grant to the NMFS from the Environmental Protection Agency's Gulf of Mexico Program. The Project Officer is Joe Powers, from the NMFS SEFSC, who is also coordinating the development of a stock assessment work book or primer that should be available at the time of the workshop. It is unsure if this source of funds will be available for future training sessions; however, Lukens indicated that the training is deemed to be so valuable that the GSMFC will continue to support the sessions through the Sport Fish Program if necessary.

Lukens informed the Subcommittee that Bezhad Mahmoudi, FMRI, has expressed an interest in developing a series of formal short courses, perhaps two weeks each in length, that could be offered, for example, through a university system. He is talking with scientists at Rosenstiel School of Marine Science, Joe Powers, and others regarding this approach. Lukens said that he will keep the Subcommittee updated on progress in this area.

Electronic Communications

Most of the issues under this agenda item were covered above in the GIS proceedings agenda item; however, Lazauski distributed information to the Subcommittee of how to use CompuServe to get messages to people on the Internet without going through their gateway. Lukens reminded that the GSMFC is attempting to compile electronic mail addresses for CompuServe or Internet. The ultimate goal is to be able to conduct Subcommittee business through electronic distribution of communications and documents.

Discussion of Tournament Surveys and Licensing Workshop

Lukens indicated that he had put these items on the agenda as a result of the report the Lisa Kline, Atlantic States Marine Fisheries Commission, gave at the RecFIN meeting in February. She discussed their activities related to identifying and surveying fishing tournaments in an effort to determine their contribution to fish mortality, and also a recreational licensing workshop. Lukens pointed out that there is no comprehensive listing of fishing tournaments in the Gulf region, and that such a listing could provide an opportunity to survey the tournament directors regarding a variety of data elements, such as type of tournament, number of participants, tournament length, tournament age, estimation of fishing mortality by species, among others. Further, regarding recreational licensing, much as happened since the last recreational licensing symposium. At that time, 1989, only one state, Texas, had a recreational license. Florida had passed its licensing legislation, but it had not become effective as of the symposium. As of the current meeting, each state in the Gulf region has a recreational license. Lukens suggested that it may be valuable to hold another symposium or workshop to examine the various licensing systems and compare and contrast their similarities and differences.

There was a general discussion regarding Lukens' information. The Subcommittee determined that it would be beneficial for the upcoming project year to begin compiling a Gulf-wide fishing tournament list, working through the various state agencies. Lazauski suggested that it may be useful to put such information on a bulletin board so people could have broad access to the information. Related to the recreational licensing issue, it was suggested that the group may want to include all state and federal licenses and permits in a workshop, since commercial fishing licenses vary greatly and have changed a great deal over the past several years. The Subcommittee charged Lukens with examining the possibilities for developing a recreational and commercial licensing/permitting workshop.

Lukens was asked to explain the recent activity related to shrimp vessel registration. He indicated that the NMFS had recently conducted a Section 7 consultation under the Endangered Species Act (ESA) regarding sea turtles. That consultation resulted in a requirement for all shrimp vessels to have an operating permit that will satisfy the agency's needs under the ESA. It was suggested that the states may be able to provide that registration through their existing licensing and permitting programs. Lukens indicated that a report from a survey of the states' systems will be available soon. The problem with a state handling the registration is that they would have to be willing to withhold a vessel registration from individuals who have multiple or egregious TED violations. Most states, including the South Atlantic states, expressed an interest in serving some role in the process; however, the NMFS will probably have to work with each state individually rather than establishing a single regional program. At the time of the current meeting, no details have been worked out.

Other Business

J. Poffenberger indicated that he had summarized the discussion during the February ComFIN meeting regarding dealer coding. The specific question was "how are dealer codes handled when the same dealer has multiple locations." He handed out a summary of that information to the Subcommittee for their review and comment. The issue is related to being able to account for what is being caught where. The first issue is if the fish are actually being counted, we need to know where they crossed the dock. This if for sampling and extrapolating purposes. The second issue is to make sure that we are not missing major amounts of fish. Lazauski indicated that

two boats from Florida rented an Alabama dock to land red snapper to ship to Pensacola, Florida by truck. The financial transaction was to take place in Florida. In that case, the fish were actually landed in Alabama, but were recorded as being landed in Florida. There is also an easy opportunity to circumvent the reporting system altogether. He indicated that through coordination with the State of Florida, those fish are being accounted for as Alabama landings. There are numerous other of examples of these kinds of situations. Much of how this issue is handled is dependent upon the historical knowledge and work approach of the individual port agents. Lukens pointed out that Joe Shepard has suggested for several years now that the Subcommittee address the flow of product. For example, where are fish landed, where do the fish go, who buys the fish, are the fish reported, etcetera. It was agreed that that would be a good approach to take to solve the above problem. P. Bowman indicated that the issue could also be addressed through the licensing/permitting workshop as discussed above. Poffenberger suggested that he will write down his understanding of how landings data are being handled in each state, and pass that to the appropriate individuals for review, comment, and confirmation.

Lukens indicated to the Subcommittee that the RecFIN/ComFIN administrative proposal, designed to provide staffing costs for the program and travel expenses for all the state RecFIN/ComFIN committee members, is approved in concept contingent upon release of the funds from the NMFS Headquarters Office. Lukens pointed out that part of the complication regarding getting the funding released is related to the ongoing planning process for an Atlantic coast-wide cooperative statistics program. The argument is that it is not appropriate to hold the Southeast Regional programs hostage to the Atlantic activities. Lukens said that he will keep the Subcommittee informed as the issue progresses.

There being no further business, the meeting was adjourned at 2:30 pm

APPROVED BY:

COMMITTEE CHAIRMAN

S-FFMC MENHADEN ADVISORY COMMITTEE
MINUTES
March 15, 1995
Lake Buena Vista, FL

Chairman John Merriner called the meeting to order at 1:10 p.m. with the following in attendance:

Members
John Merriner, NMFS, Beaufort, NC
Vince Guillory, LDWF, Bourg, LA
Borden Wallace, Daybrook Fisheries, Inc., Covington, LA
Bill Pendleton, Gulf Protein, Inc., Amelia, LA
Behzad Mahmoudi, FDEP, St. Petersburg, FL
Tom Van Devender, MDMR, Biloxi, MS
Jan Culbertson, TPWD, Seabrook, TX *(proxy for Jerry Mambretti)*

Staff
Larry B. Simpson, GSMFC, Ocean Springs, MS
Richard L. Leard, GSMFC, Ocean Springs, MS

Others
Joseph Smith, NMFS, Beaufort, NC
Eldon Levi, NMFS, Gulf Breeze, FL
Buck Sutter, NMFS, St. Petersburg, FL

Adoption of Agenda

The agenda was approved without objection.

Approval of Minutes

The minutes of the meeting held October 18, 1994, in New Orleans, Louisiana, were approved as written.

Review of 1995 Fishing Season Forecast

J. Smith reviewed final catch information from the 1994 reduction fishing season and noted that landings amounted to 761,584 MT (the greatest total since 1987). He also noted that 6 factories and 55 vessels were operating in 1994 and that age composition of the landings was 52% age-1, 41% age-2, and 7% age-3.

J. Smith predicted that 6 reduction plants and 54 vessels would operate in 1995 and that nominal fishing effort would be about 472,000 vessel ton weeks. With this level of effort, he expected that 1995 gulf menhaden landings would be about 673,000 MT with a four-out-of-five chance that they would be between 542,000 and 804,000 MT.

V. Guillory reported that long-term juvenile indices showed numbers were generally down in the Lake Calcasieu area, but they were generally up in areas east of the Mississippi River. He predicted that based on recent juvenile indices the 1995 landings for Louisiana would conservatively be between 450,000 and 500,000 MT.

The MAC discussed the LIDAR (light detection and ranging, laser imagery) system and its possible application in the menhaden fishery. B. Mahmoudi noted that the technology was developed during the Presian Gulf War, but it may be useful in various fisheries programs (both industry and government). *The MAC directed staff

to investigate the possibility of having a presentation on LIDAR applications for fisheries at the next meeting and/or at the TCC meeting.

Bycatch Project Report

*J. Merriner reported that he would contact R. Condrey to get the first year MARFIN project report and send it to R. Leard for distribution to the MAC.

Status of Menhaden FMP Revision

R. Leard reported that based on prior approval of the MAC the revised Menhaden FMP had been edited and distributed to the TCC for comment. He noted that only editorial comments had been received and that the TCC had not objected to passing the FMP to the S-FFMC for permission to go to public review.

State Reports

Louisiana - V. Guillory reported that they had presented the 1995 season forecast in November 1994 and that the report on a 2- year study to refine their juvenile recruitment indices was available. He stated that in monitoring the special bait fishery, catches had never reached the 6,612,000 pound quota and that only 2 companies operated in 1994 with 4 possible in 1995. With regard to the potential of a net ban, he noted that proposed legislation would only effect gill nets, trammel nets, saltwater seines, and other entangling nets, not menhaden purse seines.

Mississippi - T. Van Devender reported that a proposal to ban nets in Mississippi had been defeated; however, possible actions to further restrict the use of certain net in various areas were still being debated. He also stated that the National Park Service was proposing a ban on commercial fishing in areas within 1 mile of the Gulf Islands National Seashore which could effect the menhaden fishery.

Florida - B. Mahmoudi noted that since the passage of the net ban referendum in Florida, legislative activity has centered on discussions of compensation. He also noted that the effects of the net ban on menhaden fishing was unknown; however, movement of the fishery further offshore may reduce the catchability of menhaden, increase the size of vessels in the fleet, cause movement of fishing efforts to other states, and increase costs for bait.

Texas - J. Culbertson reported that in a letter from Barney White (Zapata Protein, Inc.) to Gene McCarty, the company outlined various voluntary steps that they would take in the 1995 season to reduce the potential for problems with bycatch and accidental spills in Texas waters. It was noted that these measures were not specifically requested by Texas but stemmed from discussions in 1994 regarding ways to curb incidental catches of game fish in late summer.

NMFS Report

J. Merriner reported that with regard to the port sampling program, E. Levi was retiring, and because of personnel reductions the program would be coordinated by J. Smith from the Beaufort Lab. He also stated that personnel downsizing would eliminate all temporary and term appointments (port samplers), and NMFS was looking at contractual methods to obtain samplers for the 1995 season, i.e., states, GSMFC, universities, etc. J. Meriner noted that processing of data would continue as with past years, and lab closures had been withdrawn in lieu of downsizing.

Resolution of Appreciation to Eldon Levi

*V. Guillory moved and B. Wallace seconded that a resolution of appreciation to Eldon Levi be approved. J. Merriner read the resolution which was adopted unanimously and presented a plaque of appreciation to E. Levi.

There being no further business, the meeting adjourned at 3:20 p.m.

GULF STATES MARINE FISHERIES COMMISSION

Larry B. Simpson
Executive Director

GULF STATES MARINE FISHERIES COMMISSION

P.O. Box 726, Ocean Springs, MS 39566-0726
(601) 875-5912 (FAX) 875-6604

Whereas the NMFS port sampling program provides the menhaden industry with invaluable data on the biological health of gulf menhaden stocks and consequently is a major factor in business decisions that affect the livelihood and well-being of thousands of people; and

Whereas this program is only useful when samples are taken consistently and continuously over many years; and

Whereas the S-FFMC Menhaden Advisory Committee recognizes the difficulties in maintaining the long-term integrity of such a large data base through recruiting and placement of qualified port samplers in a job that is often physically demanding; and

Whereas Mr. Eldon Levi has been the cornerstone of this program for the past 28 years, personally recruiting and supervising the collection of over 370,000 samples, and he has been the focal point of contact for the industry throughout this period;

NOW THEREFORE BE IT RESOLVED that the S-FFMC Menhaden Advisory Committee recognizes the special dedication and talents that Mr. Levi has displayed in his many years of service to the industry; and

BE IT FURTHER RESOLVED that the S-FFMC Menhaden Advisory Committee hereby expresses its deepest appreciation for the hard work, care, and concern, above and beyond the normal rigors of the position, that Mr. Levi has exhibited throughout his career.

Given this the fifteenth day of March in the year of Our Lord, One Thousand, Nine Hundred, ninety-five.

John V. Merriner, Chairman
S-FFMC Menhaden Advisory Committee

approved w/ changes

TECHNICAL COORDINATING COMMITTEE
MINUTES
Thursday, March 16, 1995
Orlando. Florida

Chairman Corky Perret called the meeting to order at 9:05 a.m. The following members and others were present:

Members
Terry Cody (proxy for H. Osburn), TPWD, Rockport, TX
Doug Frugé (proxy for Regional Director), USFWS, Ocean Springs, MS
Alan Huff, FDEP, St. Petersburg, FL
John Merriner (proxy for B. Brown), NMFS, Beaufort, NC
Corky Perret, LDWF, Baton Rouge, LA
John Roussel, LDWF, Baton Rouge, LA
J. Dale Shively, TPWD, Austin, TX
Walter Tatum, ADCNR, Gulf Shores, AL
Tom Van Devender, MDMR, Biloxi, MS
Richard Waller, GCRL, Ocean Springs, MS

Staff
Larry Simpson, Executive Director
Ron Lukens, Assistant Director
David Donaldson, SEAMAP Coordinator
Rick Leard, IJF Coordinator

Others
Phil Bowman, LDWF, Baton Rouge, LA
Page Campbell, TPWD, Rockport, TX
Jan Culbertson, TPWD, Seabrook, TX
Dan Furlong, NMFS, St. Petersburg, FL
Ron Herring, MS Power Co., Gulfport, MS
Paul Perra, NMFS, Silver Spring, MS
Gary Reinitz, USFWS, Washington, D.C.
Buck Sutter, NMFS, St. Petersburg, FL
Tom Wagner, TPWD, Rockport, TX
Bordon Wallace, Daybrook Fisheries, Covington, LA

Adoption of Agenda

The agenda was modified with the addition of the Financial Assistance Programs Data Base Presentation under item 5f. NMFS Report. The amended agenda was approved.

Approval of Minutes

The minutes for the meeting held on October 19, 1994 in New Orleans, Louisiana were approved with minor editorial changes.

Habitat Issues

Freshwater Introduction Issues

A letter from David Etzold was distributed to the Committee for their information. In the letter, it was stated that the Bonne Carré freshwater diversion structure is being reanalyzed and there is still no decision on when work will continue. P. Bowman reported that the Bonne Carré project has gone through the reanalysis phase and several issues such as overland flow, have arisen from this process. However, there is not much agreement among these issues between the various groups involved with the project. Essentially, the project is still in the study phase.

Wetlands Restoration and Implications to Fisheries Resources

P. Bowman reported that the LDWF in conjunction with other agencies presented information concerning fisheries, habitat and coastal restoration to fishing communities across the state. Fishing in Louisiana is big business. There is a large amount of economic impact generated by marine commercial and recreational fishing in Louisiana. The main reason for the large amount of fisheries production is due to the Mississippi River which has built an extensive wetlands system in the state. Wetlands provide protection from predators and a food source for organisms which utilize these areas. Studies have shown that there are more organisms found in an area if there is either submerged or emerging vegetation and thus wetlands are very important to fisheries production. However, there is a big problem in Louisiana in that there are a large amount of wetlands being lost each year. There are a number of reasons for this loss of wetlands such as subsidence, global sea level rise, hurricanes, saltwater intrusion, leveeing of the Mississippi River and changes in the natural hydrology of the area. The focus of the discussion was changes to look at the impacts on fisheries. It has been stated that Louisiana has been living through a period of fisheries expansion which cannot be sustained over a long-term period. There are several phases of wetlands loss. There is an initial expansion due to increased nutrients and habitat. But there is a point of diminishing returns where water levels become too high to sustain the vegetation and there are large losses of wetlands. The Department has been involved in marsh management for a long time. In 1989, to help address marsh management the Louisiana legislature passed the Louisiana Coastal Wetlands Conservation Management and Restoration Act (Act 6) which established a task force and trust fund to conduct coastal restoration projects in the state as well as directing the task force to develop a long-term coastal restoration plan. In 1990, a similar federal law (CWPPRA) was passed which also establishes a task force and provides funding to address some of the same issues. A restoration strategy has been developed and employs a variety of actions to combat wetlands loss such as shoreline stabilization, barrier island restoration, freshwater introduction, and hydrologic restoration. The state has also developed a draft coastal restoration blueprint as well as LSU and other organizations to address the issue of restoration. The current strategy is to take all of these plans and compile them into one large master strategy. However, these plans will cause some changes to the fisheries in the state and there may be some opposition to these actions.

State/Federal Reports

Florida

A. Huff reported that Florida is in the midst of their legislative session. Due to the net ban amendment passage, there needs to be several legislative changes. A compensation bill regarding the net ban has been reintroduced and involves several different scenarios. There is some discussion concerning the saltwater products license bill and the revenue generated from the license. FDEP is continuing to restore red drum to Biscayne Bay using hatchery reared fish. Fishermen are beginning to now catch legal fish in the area.

Alabama

W. Tatum reported that Alabama is continuing research on catch and release mortality rates for spotted seatrout. To date, an average of 12% mortality of undersized fish has been observed. It ranges from almost nothing in the winter months to approximately 15% during the hotter times of the year. This information will be published later this year. The Department will initiate a stock assessment of spotted seatrout in fall of this year. An assessment is needed since one has not be conducted since the mid 1980s. Alabama has completed the early stages of a FMP for the crab fishery. Several workshops were conducted to work out the sociological problems related to the crab fishery. The Department is currently in the process of changing the laws and regulations to help ease the conflicts involved in the fishery. The FMP should

be completed by spring 1996. SEAMAP operations are continuing and Alabama is participating in all the surveys in the Gulf of Mexico. Reef fish assessment is being conducted using trap/video methodology in the Gulf. The CSP is continuing to collect the routine data as well as the Department is currently in the process of automating their commercial licensing process. This will save a good deal of money and reduce the data entry errors. An artificial reef brochure is being developed and should be ready soon. The REEF-EX program has placed 106 tanks in the general permit area and preliminary assessments show that there are red snapper around the tanks. The EPA conducted an inspection dive on the tanks and other areas and there were no environmental distress caused from the materials. Alabama is continuing to resurvey all the oyster reefs in the state. The last time this was done occurred in 1968 and there have been a lot of change since that time. As soon as the net ban passed in Florida, several groups were calling for a ban of netting in Alabama. The Department has no position on this issue. In an effort to manage the fishery and fishermen, the Department is asking for legislation which will provide for limited entry into the mullet fishery. This issue will be discussed at the upcoming legislative session.

Mississippi

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of white shrimp. In February, the Department closed portions of Louisiana territorial waters to protect small overwintering shrimp. The Department has implemented an oil spill notification network and is continuing to develop a state contingency plan for spills in Louisiana. In response to the net ban in Florida, the Commission has passed a notice of intent to establish a moratorium of saltwater gill, trammel etc. net licenses. There are several legislative initiatives currently being discussed on the floor .

Texas

D. Shively reported that the newly elected Governor George W. Bush appointed four people to the TPWD Commission: Lee Bass (Fort Worth) was reappointed for another six-year term and named chairman, Susan Howard (actress/conservationist), Richard Heath (businessman) and Nolan Ryan (baseball legend). The nominations were approved by the Texas Senate. Senate Bill 750 was filed in February and Representative Tom Uher filed a companion bill (Bill 1841) in the House in March. In addition, another bill (Bill 825) was filed in March. The bills are undergoing senate hearings now before going to committee. The bills create a system for managing licenses of bay and bait shrimpers and is the culmination of one year of negotiations with the shrimping industry. Some of the basic elements of the bills include: eligibility, license renewal, transferability of licenses, capital stuffing, anti-monopoly, review board, and license buyback program. The Coastal Fisheries Division has three regulatory proposals undergoing public hearings at present. The first is an exempt red drum tag. This proposal makes an Exempt Red Drum Tag and Duplicate Exempt Red Drum Tag available to those individuals (senior citizens and youth 17 and under) who are not required to have a fishing license. The tag would cost $6.00 and allow these exempt anglers to retain one red drum over 28 inches. The next is snook bag and size limit reduction. This proposal reduces the bag and possession limits, and increases the minimum size of snook to help maximize the snook resource and opportunities for harvest. These regulation changes should encourage more catch and release on this limited stock. The daily bag would be reduced from 3 to 1, possession reduced from 6 to 2, and the minimum length increased from 20 to 24 inches. And the last is finfish exemption in commercial bait shrimp trawls. This change will provide additional live fish as bait for sport anglers during the summer period when bait shrimp are less abundant. In addition, the bycatch of bait shrimp trawls should be reduced because fewer trawls will be needed to retain the same amount of bait fish. The proposal allows the retention of 1200 live non-game fish not regulated by bag or size limits between 1 July and 31 August aboard a licensed commercial bait shrimp vessel. The Division will review the public comments and present final recommendations to the Commission on March 23. The Commission will then either adopt or deny the Division's proposals. In addition, the Division is reviewing a request for the Commission to legalize a suction device known locally as sand pump. This devise is used to harvest ghost shrimp for bait. If the Commission approves the action, a rule change proposal will go to public hearings in May or July.

National Marine Fisheries Service

D. Furlong reported that NMFS was sued last summer by several groups regarding failure to protect species under the Endangered Species Act (ESA). Consequently, the NMFS, under section 7 of the ESA, reinitiated a consultation related to identifying methods for reducing man-induced mortality on sea turtles. Because of this action, the litigants decided to hold off on their suit contingent on NMFS's action under section 7. The biological opinion for this consultation identified shrimping as a jeopardy activity and in order for shrimping to continue, the industry needs to follow the recommended reasonable and prudent alternatiaves. The short-term requirement of the opinion was that NMFS needed to have law enforcement personnel at specified levels. The long-term requirements include a wide variety of improving TED regulation compliance by such methods as: conducting TED workshops, implementing shrimp vessel registration system and developing an emergency response plan.

The closures of NMFS Stennis Space Center and Panama City facilities will not occur this fiscal year. In 1994, Congress passed a law which mandated government to reduce its size over the next five years by 40,000 full-time equivalents (FTEs) per year. Unfortunately, for NMFS, it is mandated to reduce 348 FTEs. Through negotiations, the number was reduced to 246 FTEs. Several personnel decided to opt for early retirement and the number was further reduced to 144 FTEs. The buy-out program for early retirement was reopened and the FY 1995 target number was reached. Thus, the closures were avoided for this year, but the same action may occur during FY1996 or FY 1997.

B. Sutter presented a system developed by the grants personnel which allows someone to access past research projects regarding a particular topic. This system allows a person to access the data in a user-friendly format. This data base will be available to anyone interested but you need to buy the copyrighted program PROCITE. He conducted several different examples to show the power of the system.

Fish & Wildlife Service

D. Frugé reported that the FWS is also providing early retirements and downsizing the agency which has caused some major disruptions at the regional level. Noreen Clough is the new acting southeast regional director. John Brown has retired in January and Garland Pardue is on detail as acting assistant regional director for ecological services and Rick Nerling is the acting regional director for fisheries. There is a new position for assisting regional director of federal aid in the region. The Service has proposed 11 hatchery closures or transfer to states. Seven of the hatcheries are in the FWS Southeast Region. Two of the proposed closures could affect the anadromous striped bass restoration program. The FWS is preparing for its annual spring striped bass fry and fingerling production. The plan is to produce gulf strain fry and fingerlings is similar to past years. The name of the National Biological Survey has officially changed to the National Biological Service. The eventual fate of this organization is still unknown.

Use of Coal Ash Waste in Marine Waters

Mississippi Power Company Activities

R. Herring stated that there are two types of coal ash: bottom ash and fly ash. The Mississippi Power Company (MPC) uses all the bottom ash that it produces. Fly ash is used in concretes and other products. The MPC conducted a study which was designed to determine the ideal cultch material based on criteria developed by the Gulf Coast Research Lab. The project involved test plots, rack, leachate, and bioaccumulation studies, spat acceptability, and general ecological overview. Clam shell was used as aggregate for the test plots. The break strength tests were conducted on pellets made from the ash and it was approximately 690 psi. He presented several allowable guidelines for a variety of elements. The leachate analysis showed that all the levels of elements in the water were within the allowable levels and were below the established drinking water standards. The results of the krebs water samples analysis also showed that all elements levels were within the established standards. The results of the bioaccumulation studies also showed that there were no significant differences among element levels in oysters taken from a fly ash reef and a clam shell reef. An analysis conducted by a private laboratory also showed no significant differences between the two types of reefs. The spat acceptability for the two types of reefs (ash aggregate vs. clam shell) tested showed that there was a higher spat settlement on the ash aggregate than on the clam shell. The growth rates were also higher on the ash aggregate than on the clam shell. In addition, the mortality rates on the ash aggregate reefs were lower than on the clam shell reefs.

GSMFC Resolution and Issues

* J. Culbertson reported that in 1991 GSMFC passed a resolution concerning the use of coal combustion byproduct ash as artificial reef substrate. The resolution stated that this material should minimize environmental risk, be stable and available and not cause harm to humans. She stated that one of the issues in the resolution stated that there were no clear state and federal guidelines on the use of coal ash. It needs to be noted that there are several types of ash which are produced from the combustion of coal called fly ash, bottom ash, boiler slag, flue gas emission desulfurization material (FGD) and fluidized bed combustion byproducts (FBC). After extensive review of these materials, the EPA concluded that these materials, due to the limited environmental risks that they pose and the already existing state and federal regulations, are exempted as hazardous waste and could be used as artificial reef material. However, FBC products were not included in this exemption and a decision will not be made until 1998. Several studies evaluating the potential use of ash byproducts as artificial reef material have been conducted by a variety of state and federal agencies. The results of these studies show that these material make suitable reef material. A proposed protocol for the use of coal combustion byproduct ash as artificial reef substrate was distributed to the Committee. There are several steps involved in the protocol including evaluation of ash material as a potential threat to human health or environment by causing acute and chronic detrimental effects, evaluation of coal ash source and production process, evaluation of chemical characteristics

of ash leachate, evaluation of biotoxicity and bioaccumulation from the ash leachate, and determination of the physical characteristics of CCB mixture. Based on the information presented, the TCC should reevaluate the use of coal combustion byproduct ash as artificial reef material and possibly update the resolution concerning this subject. **W. Tatum moved that the staff be given editorial license to modify the ash byproducts resolution to reflect the current knowledge concerning the toxicity, availability and use of ash byproducts.** C. Perret asked that J. Culbertson and R. Herring provide some input into the reformulation of the resolution if they deemed it necessary. The motion was seconded and passed unanimously.

Gulf Sturgeon Plan

* D. Frugé stated that last year this Committee was asked to review and approve this document and the TCC decided to table this issue at that time. Since then, the plan has gone out for public review and there has been several modifications but none of them were substantive changes. He reviewed the changes with the Committee. The Anadromous Subcommittee passed a motion which recommended approval of the document and sent it to the TCC for their approval. **D. Frugé moved to approve the document and send it to the State/Federal Fisheries Management Committee for their approval.** The motion was seconded and passed unanimously.

Subcommittee Reports

Anadromous Fish

* D. Frugé reported that the Subcommittee received an update on the west Pearl River project which could affect Gulf sturgeon and striped bass. The project is still on hold. There was an update on the Lake Talquin performance study which tests for any differences between growth and survival rates of Gulf and Atlantic striped bass. So far, the data show no significant differences between the two races. The Subcommittee asked staff to explore the possibility of establishing a project to assess archived striped bass tissues for nuclear DNA in the Apalachicola Bay system before any stocking in conducted in that bay system. **D. Frugé moved on behalf of the Subcommittee that the GSMFC send a letter requesting the State of Louisiana to take necessary actions to ensure the protection of striped bass in Indian Creek Lake.** The rationale for this letter was concern that the current regulations may not adequately protect the brood stock of striped bass in this lake. The motion passed unanimously. Another action taken by the Subcommittee was to develop a proposal focused on the population of striped bass in the Pascagoula River in Mississippi. The reason for choosing the Pascagoula was that it is one of the rivers in the Gulf that stands the best chance for reestablishing a population of striped bass. The Subcommittee would develop this three-year proposal which will include participation from all of the Gulf States. Therefore, **D. Frugé moved on behalf of the Subcommittee that the GSMFC develop a joint W/B administrative proposal focus on restoring a self-sustaining population of striped bass in the Pascagoula River.** The motion was seconded and passed unanimously.

Artificial Reef

W. Tatum distributed a REEF-EX brochure developed by the army which outlines the amount and types of military equipment that has been deployed by the program to the various states in the United States. The program has set goals of providing material for deployment as artificial reefs to all coastal states. There is a goal of 35 to 40 units per state at no charge to the states. The only costs will be transportation to the deployment sites, however, the army will mitigate these costs in most cases. During a conversation with Captain Bill Higgins, it was noted that military equipment can be sold for a fair amount of money and that this money be placed into an account and be used to fund the REEF-EX program. W. Tatum suggested that the GSMFC, via the TCC and Subcommittee, draft a letter stating that this is a good idea and should be acted upon. There is a general lack of information concerning artificial reefs. Therefore, the army is planning to conduct an economic study of artificial reefs in the Gulf of Mexico and the Subcommittee will receive money to contract for this study. Due to the dissolution of the Sport Fishing Institute, the Gulf artificial reef data base is now housed at the GSMFC office in Ocean Springs. The group is planning to republished the reef document which

describes each state's artificial reef program and location of their reefs. Also, the Subcommittee is currently developing a reef materials guidelines publication which should be in draft form by December 1995.

Crab

T. Wagner reported that the Subcommittee conducted a Crab User Conflict Symposium. There were five presenters from across the Gulf of Mexico. Alan Matherne, Louisiana Fisheries Extension Service, discussed blue crab industry conflicts with other natural resource user groups. Sherman Siegmund, commercial fishermen, presented user conflicts in the blue crab fishery from a fisherman's perspective and Keith Ashton, Manager, Bo Brooks of Texas, talked about conflicts in the fishery from a processor's perspective. Bruce Buckson, FDEP, Law Enforcement Division, discussed conflicts in the fishery regarding law enforcement. Stephen Thomas, University of South Alabama, presented user group conflicts and crab fishermen in Alabama waters.

Data Management

R. Lukens reported for S. Lazauski that the 1995 ComFIN/RecFIN meeting was held in the first of March in Jacksonville. During the ComFIN meeting, the Committee adopted a framework plan which established the ComFIN. The Committee decided to wait on the signing of the MOU since the MOU for RecFIN needs to be reconsidered and the group decided to wait for the RecFIN program review to be completed and then develop a FIN MOU which would incorporate both the ComFIN and RecFIN. Also, a data confidentiality work session was conducted with participation by Committee members, lawyers, law enforcement personnel and others. The group discussed the different laws and ordinances which established confidentiality for collection and management of data. A proceedings from this session will be developed. At the RecFIN meeting, an outside review of the program was discussed. A review team, consisting of Bob Ditton, Cynthia Jones, and John Harville, has been selected and the program review is scheduled for May 1995 in Panama City. The group also discussed administrative funding for RecFIN and ComFIN. Funds has been dedicated for this purpose, however, the money is still tied up in Washington, D.C. The next ComFIN/RecFIN meeting will be held in September in Miami where there will be a demonstration on how to use the new NMFS computer system. The Subcommittee has completed the proceedings for the GIS symposium which has been distributed to the TCC. The next stock assessment workshop has been scheduled for May 1995 in Tallahassee. The Subcommittee decided to begin planning for the development of a workshop/symposium concerning electronic communications such as Internet, CompuServe, etc. The Subcommittee also decided to begin planing for a commercial and recreational licensing workshop to examine what exists and similarities and differences among the states. The Subcommittee asked the staff to compile a list of fishing tournaments conducted in the Gulf of Mexico and contact personnel for these tournaments. The reason for collecting this data is to attempt to quantify the amount of effort being placed on the resources through tournaments.

Habitat

R. Leard reported that each of the states and federal representatives on the committee review their involvement in various marine habitat conservation activities both within their own agency and with other agencies/organizations/groups. The Subcommittee agreed that each member would develop a synopsis of the programs and activities in which they were involved and provide them to R. Leard by July 1, 1995. D. Ruple agreed to contact the EPA Gulf of Mexico Program office to begin developing a list of available habitat education material. Subcommittee members will provide their input to R. Leard by July 1, 1995. The Subcommittee discussed goals and objectives and tentatively identified a Subcommittee goal as: To promote conservation of marine fisheries by focusing on the relationship between quality and quantity of fisheries habitats to sustainable fisheries production. Tentative objectives included: (1) to identify habitat educational materials Gulf wide and to help coordinate its distribution; (2) to identify target audiences for program activities (government personnel, fishing community, youth, general public, etc.); and (3) to facilitate a "buy in" program by fishing groups and others to produce and distribute marine habitat educational materials. In the meeting, B. Higgins discussed the REEF-EX Program of the Department of Defense and asked the subcommittee for its support. It was noted that although the REEF-EX program is a promising effort to increase reef habitat, the policy decision to support the program should come from the GSMFC. R. Leard recommended that on behalf of the Subcommittee the TCC

recommend that the REEF-EX program be placed on the agenda of the GSMFC which will meet in April in Washington, D.C. It was also noted that there would be an opportunity to discuss the program with the ASMFC and the PSMFC which will be meeting in conjunction with the GSMFC. The TCC agreed and this issue will be added to the Commission Business Meeting agenda. And by consensus, the Subcommittee adopted a position of support for continued fishery habitat conservation programs as efforts progress to streamline wetlands regulatory policies.

SEAMAP

* W. Tatum reported that the SEAMAP 1995 Marine Directory has been published and copies have been distributed to the TCC. The Adult Finfish Work Group is continuing to work on development of shark protocol for SEAMAP. The methodology will probably be surface long-line and the GSMFC is working on getting funds for this survey. The Environmental Data Work Group recommended that NMFS stop using the lab extraction technique for collection of chlorophyll and begin using the fluorometic technique with collection of lab extraction samples several times a day to correlate the two types of methodologies. The states will continue to collect lab extraction samples and send them to NMFS as soon as possible to reduce degradation of the samples. The NMFS will implement procedures to ensure that the water sample and the CTD readings for chlorophyll will be taken in the same location. The NMFS is exploring the possibility of changing the lab extraction technique from acetone-based to methanol-based. Also, for states that do not have a CTD, all efforts be made to get a CTD as soon as possible. A Reef Fish Workshop is tentatively scheduled for April 26-27, 1995 to discuss the development of sampling methodology for oil and gas structures. GSMFC is also attempting to secure funding for this activity. Regarding red drum, the NMFS has received $233,000 to conduct an age and growth study for red drum work in the Gulf of Mexico. It is hopeful that the states will participate in this activity either through contract, grants, or other methods. The SEAMAP Red Drum Work Group will need to develop a survey methodology for sampling the offshore stocks. C. Perret asked who the members of the Work Group are and recommended that the TCC review the makeup of the group due to changes of personnel. **W. Tatum moved that staff distribute the current list of the Red Drum Work Group to the TCC and each state make any changes to the group they deem appropriate.** The motion was seconded and passed unanimously. J. Roussel stated he thought that the money was for the first year (aerial survey) of the offshore tagging study which duplicates the 1986 work done by the NMFS. W. Tatum stated that was not his understanding. There was a lengthy discussion concerning the purpose of the money and after this discussion, the TCC asked that once the new Red Drum Work Group has been formed, the group be convened, via a conference call, to decide what method should be used to collect data on the red drum offshore stocks.

There being no further business, the meeting was adjourned at 4:45 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

TECHNICAL COORDINATING COMMITTEE
MINUTES
Thursday, March 16, 1995
Orlando. Florida

Chairman Corky Perret called the meeting to order at 9:05 a.m. The following members and others were present:

Members
Terry Cody (proxy for H. Osburn), TPWD, Rockport, TX
Doug Frugé (proxy for Regional Director), USFWS, Ocean Springs, MS
Alan Huff, FDEP, St. Petersburg, FL
John Merriner (proxy for B. Brown), NMFS, Beaufort, NC
Corky Perret, LDWF, Baton Rouge, LA
John Roussel, LDWF, Baton Rouge, LA
J. Dale Shively, TPWD, Austin, TX
Walter Tatum, ADCNR, Gulf Shores, AL
Tom Van Devender, MDMR, Biloxi, MS
Richard Waller, GCRL, Ocean Springs, MS

Staff
Larry Simpson, Executive Director
Ron Lukens, Assistant Director
David Donaldson, SEAMAP Coordinator
Rick Leard, IJF Coordinator

Others
Phil Bowman, LDWF, Baton Rouge, LA
Page Campbell, TPWD, Rockport, TX
Jan Culbertson, TPWD, Seabrook, TX
Dan Furlong, NMFS, St. Petersburg, FL
Ron Herring, MS Power Co., Gulfport, MS
Paul Perra, NMFS, Silver Spring, MS
Gary Reinitz, USFWS, Washington, D.C.
Buck Sutter, NMFS, St. Petersburg, FL
Tom Wagner, TPWD, Rockport, TX
Bordon Wallace, Daybrook Fisheries, Covington, LA

Adoption of Agenda

The agenda was modified with the addition of the Financial Assistance Programs Data Base Presentation under item 5f. NMFS Report. The amended agenda was approved.

Approval of Minutes

The minutes for the meeting held on October 19, 1994 in New Orleans, Louisiana were approved with minor editorial changes.

Habitat Issues

Freshwater Introduction Issues

A letter from David Etzold was distributed to the Committee for their information. In the letter, it was stated that the Bonne Carré freshwater diversion structure is being reanalyzed and there is still no decision on when work will continue. P. Bowman reported that the Bonne Carré project has gone through the reanalysis phase and several issues such as overland flow, have arisen from this process. However, there is not much agreement among these issues between the various groups involved with the project. Essentially, the project is still in the study phase.

Wetlands Restoration and Implications to Fisheries Resources

P. Bowman reported that the LDWF in conjunction with other agencies presented information concerning fisheries, habitat and coastal restoration to fishing communities across the state. Fishing in Louisiana is big business. There is a large amount of economic impact generated by marine commercial and recreational fishing in Louisiana. The main reason for the large amount of fisheries production is due to the Mississippi River which has built an extensive wetlands system in the state. Wetlands provide protection from predators and a food source for organisms which utilize these areas. Studies have shown that there are more organisms found in an area if there is either submerged or emerging vegetation and thus wetlands are very important to fisheries production. However, there is a big problem in Louisiana in that there are a large amount of wetlands being lost each year. There are a number of reasons for this loss of wetlands such as subsidence, global sea level rise, hurricanes, saltwater intrusion, leveeing of the Mississippi River and changes in the natural hydrology of the area. The focus of the discussion was changes to look at the impacts on fisheries. It has been stated that Louisiana has been living through a period of fisheries expansion which cannot be sustained over a long-term period. There are several phases of wetlands loss. There is an initial expansion due to increased nutrients and habitat. But there is a point of diminishing returns where water levels become too high to sustain the vegetation and there are large losses of wetlands. The Department has been involved in marsh management for a long time. In 1989, to help address marsh management the Louisiana legislature passed the Louisiana Coastal Wetlands Conservation Management and Restoration Act (Act 6) which established a task force and trust fund to conduct coastal restoration projects in the state as well as directing the task force to develop a long-term coastal restoration plan. In 1990, a similar federal law (CWPPRA) was passed which also establishes a task force and provides funding to address some of the same issues. A restoration strategy has been developed and employs a variety of actions to combat wetlands loss such as shoreline stabilization, barrier island restoration, freshwater introduction, and hydrologic restoration. The state has also developed a draft coastal restoration blueprint as well as LSU and other organizations to address the issue of restoration. The current strategy is to take all of these plans and compile them into one large master strategy. However, these plans will cause some changes to the fisheries in the state and there may be some opposition to these actions.

State/Federal Reports

Florida

A. Huff reported that Florida is in the midst of their legislative session. Due to the net ban amendment passage, there needs to be several legislative changes. A compensation bill regarding the net ban has been reintroduced and involves several different scenarios. There is some discussion concerning the saltwater products license bill and the revenue generated from the license. FDEP is continuing to restore red drum to Biscayne Bay using hatchery reared fish. Fishermen are beginning to now catch legal fish in the area.

Alabama

W. Tatum reported that Alabama is continuing research on catch and release mortality rates for spotted seatrout. To date, an average of 12% mortality of undersized fish has been observed. It ranges from almost nothing in the winter months to approximately 15% during the hotter times of the year. This information will be published

later this year. The Department will initiate a stock assessment of spotted seatrout in fall of this year. An assessment is needed since one has not be conducted since the mid 1980s. Alabama has completed the early stages of a FMP for the crab fishery. Several workshops were conducted to work out the sociological problems related to the crab fishery. The Department is currently in the process of changing the laws and regulations to help ease the conflicts involved in the fishery. The FMP should be completed by spring 1996. SEAMAP operations are continuing and Alabama is participating in all the surveys in the Gulf of Mexico. Reef fish assessment is being conducted using trap/video methodology in the Gulf. The CSP is continuing to collect the routine data as well as the Department is currently in the process of automating their commercial licensing process. This will save a good deal of money and reduce the data entry errors. An artificial reef brochure is being developed and should be ready soon. The REEF-EX program has placed 106 tanks in the general permit area and preliminary assessments show that there are red snapper around the tanks. The EPA conducted an inspection dive on the tanks and other areas and there were no environmental distress caused from the materials. Alabama is continuing to resurvey all the oyster reefs in the state. The last time this was done occurred in 1968 and there have been a lot of change since that time. As soon as the net ban passed in Florida, several groups were calling for a ban of netting in Alabama. The Department has no position on this issue. In an effort to manage the fishery and fishermen, the Department is asking for legislation which will provide for limited entry into the mullet fishery. This issue will be discussed at the upcoming legislative session.

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Texas

D. Shively reported that the newly elected Governor George W. Bush appointed four people to the TPWD Commission: Lee Bass (Fort Worth) was reappointed for another six-year term and named chairman, Susan Howard (actress/conservationist), Richard Heath (businessman) and Nolan Ryan (baseball legend). The nominations were approved by the Texas Senate. Senate Bill 750 was filed in February and Representative Tom Uher filed a companion bill (Bill 1841) in the House in March. In addition, another bill (Bill 825) was filed in March. The bills are undergoing senate hearings now before going to committee. The bills create a system for managing licenses of bay and bait shrimpers and is the culmination of one year of negotiations with the shrimping industry. Some of the basic elements of the bills include: eligibility, license renewal, transferability of licenses, capital stuffing, anti-monopoly, review board, and license buyback program. The Coastal Fisheries Division has three regulatory proposals undergoing public hearings at present. The first is an exempt red drum tag. This proposal makes an Exempt Red Drum Tag and Duplicate Exempt Red Drum Tag available to those individuals (senior citizens and youth 17 and under) who are not required to have a fishing license. The tag would cost $6.00 and allow these exempt anglers to retain one red drum over 28 inches. The next is snook bag and size limit reduction. This proposal reduces the bag and possession limits, and increases the minimum size of snook to help maximize the snook resource and opportunities for harvest. These regulation changes should encourage more catch and release on this limited stock. The daily bag would be reduced from 3 to 1, possession reduced from 6 to 2, and the minimum length increased from 20 to 24 inches. And the last is finfish exemption in commercial bait shrimp trawls. This change will provide additional live fish as bait for sport anglers during the summer period when bait shrimp are less abundant. In addition, the bycatch of bait shrimp trawls should be reduced because fewer trawls will be needed to retain the same amount of bait fish. The proposal allows the retention of 1200 live non-game fish not regulated by bag or size limits between 1 July and 31 August aboard a licensed commercial bait shrimp vessel. The Division will review the public comments and present final recommendations to the Commission on March 23. The Commission will then either adopt or deny the Division's proposals. In addition, the Division is reviewing a request for the Commission to legalize a suction device known locally as sand pump. This devise is used to harvest ghost shrimp for bait. If the Commission approves the action, a rule change proposal will go to public hearings in May or July.

National Marine Fisheries Service

D. Furlong reported that NMFS was sued last summer by several groups regarding failure to protect species under the Endangered Species Act (ESA). Consequently, the NMFS, under section 7 of the ESA, reinitiated a consultation related to the identifying methods for reducing man-induced mortality on sea turtles. Because of this action, the litigants decided to hold off on their suit contingent on NMFS's action under section 7. The biological opinion for this consultation identified shrimping as a jeopardy activity and in order for shrimping to continue, the industry needs to follow established rules. The short-term requirement of the opinion was that NMFS needed to have law enforcement personnel at specified levels. The long-term requirements include a wide variety of improving TED regulation compliance by such methods as conducting boarding party workshops, implementation of shrimp vessel

registration system and other activities. The closures of NMFS Stennis Space Center and the Panama City facilities will not occur this fiscal year. In 1994, Congress passed a law which mandated government to reduce its size over the next five years by 40,000 full-time equivalents (FTEs) per year. Unfortunately, the NMFS is at the bottom of the pile and were mandated to reduce by 348 FTEs. Through negotiations, the number was reduced to 246 FTEs. Several personnel decided to opt for early retirement and the number was further reduced to 144 FTEs. The early buy-out program was opened again and the target number was reached. Thus, the closures were avoided for this year, but the same action may occur during FY1996.

B. Sutter presented a system developed by the grants personnel which allows someone to access past research projects regarding a particular topic. This system allows a person to access the data in a user-friendly format. This data base will be available to anyone interested but you need to buy the copyrighted program PROCITE. He conducted several different examples to show the power of the system.

Fish & Wildlife Service

D. Frugé reported that the FWS is also providing early retirements and downsizing the agency which has caused some major disruptions at the regional level. Noreen Clough is the new acting southeast regional director. John Brown has retired in January and Garland Pardue is on detail as acting assistant regional director for ecological services and Rick Nerling is the acting regional director for fisheries. There is a new position for assisting regional director of federal aid in the region. The Service has proposed 11 hatchery closures or transfer to states. Seven of the hatcheries are in the FWS Southeast Region. Two of the proposed closures could affect the anadromous striped bass restoration program. The FWS is preparing for its annual spring striped bass fry and fingerling production. The plan is to produce gulf strain fry and fingerlings is similar to past years. The name of the National Biological Survey has officially changed to the National Biological Service. The eventual fate of this organization is still unknown.

Use of Coal Ash Waste in Marine Waters

Mississippi Power Company Activities

R. Herring stated that there are two types of coal ash: bottom ash and fly ash. The Mississippi Power Company (MPC) uses all the bottom ash that it produces. Fly ash is used in concretes and other products. The MPC conducted a study which was designed to determine the ideal cultch material based on criteria developed by the Gulf Coast Research Lab. The project involved test plots, rack, leachate, and bioaccumulation studies, spat acceptability, and general ecological overview. Clam shell was used as aggregate for the test plots. The break strength tests were conducted on pellets made from the ash and it was approximately 690 psi. He presented several allowable guidelines for a variety of elements. The leachate analysis showed that all the levels of elements in the water were within the allowable levels and were below the established drinking water standards. The results of the krebs water samples analysis also showed that all elements levels were within the established standards. The results of the bioaccumulation studies also showed that there were no significant differences among element levels in oysters taken from a fly ash reef and a clam shell reef. An analysis conducted by a private laboratory also showed no significant differences between the two types of reefs. The spat acceptability for the two types of reefs (ash aggregate vs. clam shell) tested showed that there was a higher spat settlement on the ash aggregate than on the clam shell. The growth rates were also higher on the ash aggregate than on the clam shell. In addition, the mortality rates on the ash aggregate reefs were lower than on the clam shell reefs.

GSMFC Resolution and Issues

* J. Culbertson reported that in 1991 GSMFC passed a resolution concerning the use of coal combustion byproduct ash as artificial reef substrate. The resolution stated that this material should minimize environmental risk, be stable and available and not cause harm to humans. She stated that one of the issues in the resolution stated that

there were no clear state and federal guidelines on the use of coal ash. It needs to be noted that there are several types of ash which are produced from the combustion of coal called fly ash, bottom ash, boiler slag, flue gas emission desulfurization material (FGD) and fluidized bed combustion byproducts (FBC). After extensive review of these materials, the EPA concluded that these materials, due to the limited environmental risks that they pose and the already existing state and federal regulations, are exempted as hazardous waste and could be used as artificial reef material. However, FBC products were not included in this exemption and a decision will not be made until 1998. Several studies evaluating the potential use of ash byproducts as artificial reef material have been conducted by a variety of state and federal agencies. The results of these studies show that these material make suitable reef material. A proposed protocol for the use of coal combustion byproduct ash as artificial reef substrate was distributed to the Committee. There are several steps involved in the protocol including evaluation of ash material as a potential threat to human health or environment by causing acute and chronic detrimental effects, evaluation of coal ash source and production process, evaluation of chemical characteristics of ash leachate, evaluation of biotoxicity and bioaccumulation from the ash leachate, and determination of the physical characteristics of CCB mixture. Based on the information presented, the TCC should reevaluate the use of coal combustion byproduct ash as artificial reef material and possibly update the resolution concerning this subject. **W. Tatum moved that the staff be given editorial license to modify the ash byproducts resolution to reflect the current knowledge concerning the toxicity, availability and use of ash byproducts.** C. Perret asked that J. Culbertson and R. Herring provide some input into the reformulation of the resolution if they deemed it necessary. The motion was seconded and passed unanimously.

Gulf Sturgeon Plan

* D. Frugé stated that last year this Committee was asked to review and approve this document and the TCC decided to table this issue at that time. Since then, the plan has gone out for public review and there has been several modifications but none of them were substantive changes. He reviewed the changes with the Committee. The Anadromous Subcommittee passed a motion which recommended approval of the document and sent it to the TCC for their approval. **D. Frugé moved to approve the document and send it to the State/Federal Fisheries Management Committee for their approval.** The motion was seconded and passed unanimously.

Subcommittee Reports

Anadromous Fish

* D. Frugé reported that the Subcommittee received an update on the west Pearl River project which could affect Gulf sturgeon and striped bass. The project is still on hold. There was an update on the Lake Talquin performance study which tests for any differences between growth and survival rates of Gulf and Atlantic striped bass. So far, the data show no significant differences between the two races. The Subcommittee asked staff to explore the possibility of establishing a project to assess archived striped bass tissues for nuclear DNA in the Apalachicola Bay system before any stocking in conducted in that bay system. **D. Frugé moved on behalf of the Subcommittee that the GSMFC send a letter requesting the State of Louisiana to take necessary actions to ensure the protection of striped bass in Indian Creek Lake.** The rationale for this letter was concern that the current regulations may not adequately protect the brood stock of striped bass in this lake. The motion passed unanimously. Another action taken by the Subcommittee was to develop a proposal focused on the population of striped bass in the Pascagoula River in Mississippi. The reason for choosing the Pascagoula was that it is one of the rivers in the Gulf that stands the best chance for reestablishing a population of striped bass. The Subcommittee would develop this three-year proposal which will include participation from all of the Gulf States. Therefore, **D. Frugé moved on behalf of the Subcommittee that the GSMFC develop a joint W/B administrative proposal focus on restoring a self-sustaining population of striped bass in the Pascagoula River.** The motion was seconded and passed unanimously.

Artificial Reef

W. Tatum distributed a REEF-EX brochure developed by the army which outlines the amount and types of military equipment that has been deployed by the program to the various states in the United States. The program has set goals of providing material for deployment as artificial reefs to all coastal states. There is a goal of 35 to 40 units per state at no charge to the states. The only costs will be transportation to the deployment sites, however, the army will mitigate these costs in most cases. During a conversation with Captain Bill Higgins, it was noted that military equipment can be sold for a fair amount of money and that this money be placed into an account and be used to fund the REEF-EX program. W. Tatum suggested that the GSMFC, via the TCC and Subcommittee, draft a letter stating that this is a good idea and should be acted upon. There is a general lack of information concerning artificial reefs. Therefore, the army is planning to conduct an economic study of artificial reefs in the Gulf of Mexico and the Subcommittee will receive money to contract for this study. Due to the dissolution of the Sport Fishing Institute, the Gulf artificial reef data base is now housed at the GSMFC office in Ocean Springs. The group is planning to republished the reef document which describes each state's artificial reef program and location of their reefs. Also, the Subcommittee is currently developing a reef materials guidelines publication which should be in draft form by December 1995.

Crab

T. Wagner reported that the Subcommittee conducted a Crab User Conflict Symposium. There were five presenters from across the Gulf of Mexico. Alan Matherne, Louisiana Fisheries Extension Service, discussed blue crab industry conflicts with other natural resource user groups. Sherman Siegmund, commercial fishermen, presented user conflicts in the blue crab fishery from a fisherman's perspective and Keith Ashton, Manager, Bo Brooks of Texas, talked about conflicts in the fishery from a processor's perspective. Bruce Buckson, FDEP, Law Enforcement Division, discussed conflicts in the fishery regarding law enforcement. Stephen Thomas, University of South Alabama, presented user group conflicts and crab fishermen in Alabama waters.

Data Management

R. Lukens reported for S. Lazauski that the 1995 ComFIN/RecFIN meeting was held in the first of March in Jacksonville. During the ComFIN meeting, the Committee adopted a framework plan which established the ComFIN. The Committee decided to wait on the signing of the MOU since the MOU for RecFIN needs to be reconsidered and the group decided to wait for the RecFIN program review to be completed and then develop a FIN MOU which would incorporate both the ComFIN and RecFIN. Also, a data confidentiality work session was conducted with participation by Committee members, lawyers, law enforcement personnel and others. The group discussed the different laws and ordinances which established confidentiality for collection and management of data. A proceedings from this session will be developed. At the RecFIN meeting, an outside review of the program was discussed. A review team, consisting of Bob Ditton, Cynthia Jones, and John Harville, has been selected and the program review is scheduled for May 1995 in Panama City. The group also discussed administrative funding for RecFIN and ComFIN. Funds has been dedicated for this purpose, however, the money is still tied up in Washington, D.C. The next ComFIN/RecFIN meeting will be held in September in Miami where there will be a demonstration on how to use the new NMFS computer system. The Subcommittee has completed the proceedings for the GIS symposium which has been distributed to the TCC. The next stock assessment workshop has been scheduled for May 1995 in Tallahassee. The Subcommittee decided to begin planning for the development of a workshop/symposium concerning electronic communications such as Internet, CompuServe, etc. The Subcommittee also decided to begin planing for a commercial and recreational licensing workshop to examine what exists and similarities and differences among the states. The Subcommittee asked the staff to compile a list of fishing tournaments conducted in the Gulf of Mexico and contact personnel for these tournaments. The reason for collecting this data is to attempt to quantify the amount of effort being placed on the resources through tournaments.

Habitat

R. Leard reported that each of the states and federal representatives on the committee review their involvement in various marine habitat conservation activities both within their own agency and with other agencies/organizations/groups. The Subcommittee agreed that each member would develop a synopsis of the programs and activities in which they were involved and provide them to R. Leard by July 1, 1995. D. Ruple agreed to contact the EPA Gulf of Mexico Program office to begin developing a list of available habitat education material. Subcommittee members will provide their input to R. Leard by July 1, 1995. The Subcommittee discussed goals and objectives and tentatively identified a Subcommittee goal as: To promote conservation of marine fisheries by focusing on the relationship between quality and quantity of fisheries habitats to sustainable fisheries production. Tentative objectives included: (1) to identify habitat educational materials Gulf wide and to help coordinate its distribution; (2) to identify target audiences for program activities (government personnel, fishing community, youth, general public, etc.); and (3) to facilitate a "buy in" program by fishing groups and others to produce and distribute marine habitat educational materials. In the meeting, B. Higgins discussed the REEF-EX Program of the Department of Defense and asked the subcommittee for its support. It was noted that although the REEF-EX program is a promising effort to increase reef habitat, the policy decision to support the program should come from the GSMFC. R. Leard recommended that on behalf of the Subcommittee the TCC recommend that the REEF-EX program be placed on the agenda of the GSMFC which will meet in April in Washington, D.C. It was also noted that there would be an opportunity to discuss the program with the ASMFC and the PSMFC which will be meeting in conjunction with the GSMFC. The TCC agreed and this issue will be added to the Commission Business Meeting agenda. And by consensus, the Subcommittee adopted a position of support for continued fishery habitat conservation programs as efforts progress to streamline wetlands regulatory policies.

SEAMAP

* W. Tatum reported that the SEAMAP 1995 Marine Directory has been published and copies have been distributed to the TCC. The Adult Finfish Work Group is continuing to work on development of shark protocol for SEAMAP. The methodology will probably be surface long-line and the GSMFC is working on getting funds for this survey. The Environmental Data Work Group recommended that NMFS stop using the lab extraction technique for collection of chlorophyll and begin using the fluorometic technique with collection of lab extraction samples several times a day to correlate the two types of methodologies. The states will continue to collect lab extraction samples and send them to NMFS as soon as possible to reduce degradation of the samples. The NMFS will implement procedures to ensure that the water sample and the CTD readings for chlorophyll will be taken in the same location. The NMFS is exploring the possibility of changing the lab extraction technique from acetone-based to methanol-based. Also, for states that do not have a CTD, all efforts be made to get a CTD as soon as possible. A Reef Fish Workshop is tentatively scheduled for April 26-27, 1995 to discuss the development of sampling methodology for oil and gas structures. GSMFC is also attempting to secure funding for this activity. Regarding red drum, the NMFS has received $233,000 to conduct an age and growth study for red drum work in the Gulf of Mexico. It is hopeful that the states will participate in this activity either through contract, grants, or other methods. The SEAMAP Red Drum Work Group will need to develop a survey methodology for sampling the offshore stocks. C. Perret asked who the members of the Work Group are and recommended that the TCC review the makeup of the group due to changes of personnel. **W. Tatum moved that staff distribute the current list of the Red Drum Work Group to the TCC and each state make any changes to the group they deem appropriate.** The motion was seconded and passed unanimously. J. Roussel stated he thought that the money was for the first year (aerial survey) of the offshore tagging study which duplicates the 1986 work done by the NMFS. W. Tatum stated that was not his understanding. There was a lengthy discussion concerning the purpose of the money and after this discussion, the TCC asked that once the new Red Drum Work Group has been formed, the group be convened, via a conference call, to decide what method should be used to collect data on the red drum offshore stocks.

There being no further business, the meeting was adjourned at 4:45 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

LAW ENFORCEMENT COMMITTEE (LEC)
MINUTES
March 16, 1995
Lake Buena Vista, FL

Jerry Waller, Chairman, called the meeting to order at 8:15 a.m. The following were in attendance:

Members
Terry Bakker, MDWFP, Biloxi, MS
Tommy Candies, LDWF, Baton Rouge, LA
Suzanne Horn, NMFS, St. Petersburg, FL
Robert D. Perkins, USCG/District 8, New Orleans (*proxy for LCDR Mark Johnson)*
Perry Joyner, FMP, Tallahassee, FL
Bill Robinson, TPWD, Austin, TX
Jerry Waller, ADCNR/MRD, Dauphin Island, AL

Others
Bruce Buckson, FMP, Tallahassee, FL
Kevin McDonald, TPWD, Corpus Christi, TX

Staff
Richard Leard, GSMFC, Ocean Springs, MS
Cynthia Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as presented.

Adoption of Minutes

Bill Robinson moved to adopt the minutes of the meeting held October 19, 1994, in New Orleans, Louisiana. The motion was seconded by Terry Bakker, and the minutes were adopted as presented.

Task Force Activity

Rick Leard reported the final Mullet TTF meeting is tentatively scheduled for May 11-12, 1995. Progress on the Spotted Seatrout FMP has been delayed due to emphasis on completion of the Menhaden FMP and the Stone Crab Profile and finalization of the sociological and economic sections of the Mullet FMP. The next working meeting of the Spotted Seatrout TTF will be scheduled for late May or early June.

White Paper - Consistency of Regulations

At its October meeting, the LEC agreed to request that the Commission, in particular state directors, review and provide a response to the recommendations set forth in the white paper (Attachment 1). The LEC further requested the Commission's response be available for committee review at the spring 1995 meeting. This request was approved in the LECs report at the Commission Business Session on October 20, 1994, but no response has been received.

The LEC agreed that a letter should be written to the Commissioners reiterating their request for a response to the white paper. A response date of August 1 was suggested so that committee members may review responses

before the next LEC meeting in October. The LEC requested Rick Leard and Jerry Waller draft the letter on behalf of the committee.

ISSC Issues

The LEC viewed two network news reports. The first video presented problems in raw shellfish consumption including hepatitis and *Vibrio*. The second video presented problems of seafood poisoning, contaminated fish, and fish handling at seafood markets. Jerry Waller reported he had been appointed to the ISSC Executive Board replacing Joe Gill who retired from the Mississippi Department of Marine Resources. He further reported that the ISSC is working on the "Free Liquor" problem by gathering information concerning state regulation and enforcement of added water standards. Waller reminded the LEC to return the ISSC Patrol Committee survey reviewing and updating patrol requirements of the National Shellfish Sanitation Program. He noted an issue that will come up again is the move in Washington that oysters harvested during summer months would have to be labelled for cooking only. The LEC asked Suzanne Horn to inquire into shellfish patrol reports that Morris Pallozi was working on before his retirement.

NMFS Report

Suzanne Horn reported that the headquarters office is working with a skeleton staff without an enforcement director since Morris Pallozi's retirement. Once a new director comes, in the office will probably be reorganized. Due to government cutbacks, approximately 80-90 NMFS staff have taken by-out retirements. The Enforcement Division has lost 5-6 positions in the by-out rounds. The only enforcement hiring is in the Alaska IFQ Program. A NMFS task force has been set-up to review and streamline organization within the NMFS. Recommendations have been made, but decisions have not been finalized.

Regionally, Phil Bohr will be retiring at the end of the month. It doesn't appear that his position will be back filled. The regional office has also lost their procurement employee due to retirement by-outs. Tracy Dunn has been moved from Key West to Charleston, and Logan Gregory was recruited to the Key West position from St. Petersburg.

Turtle stranding and TED enforcement was at the forefront this past year. As a result of a law suit and threatened law suit last year, a biological opinion was published which recommended an emergency response plan in the Southeast Region. The plan was signed last week and consists of a three phases. Phase I is implemented from April through November each year with increased enforcement. A five member TED team is being appointed whose responsibilities will be TED enforcement in those areas where there have been high numbers of strandings historically or where there are high numbers of shrimp vessels fishing close to shore for the potential of turtle strandings or in areas of high complaints of non-compliance. Phase II goes into effect when a certain level of strandings has been reached, and certain gear restrictions will be published in the Federal Register. Phase III is published closure. Another part of the biological opinion is that shrimp fishermen will be federally permitted for the first time. The estimated target date for having vessels permitted is January 1996. Permitting shrimp fishermen will allow the NMFS to better know the fishing population (how many vessels are involved in the shrimp fishery), and it will also allow sanctions if shrimp fishermen are not in compliance. Under the Endangered Species Act, these permits can cover all waters but will in all likelihood cover the area outside the COLREG line. Suzanne Horn stated she would send the LEC members copies of the Opinion and Response Plan.

In response to the letter regarding enforcement procedures from the Commission that was sent to Dr. Kemmerer, NMFS, and Rear Admiral North, USCG (Attachment 2), Suzanne Horn reported a series of workshops have been held. A form has been designed that will designate whether a vessel was in compliance when boarded. A excellent how-to manual was also developed along with a placard to mount in the wheel-house to display TED requirements. In order to avoid repeated reboarding, a computer printout of boardings was distributed to

enforcement personnel along with instructions not to board vessels again within seven days. Industry workshops will be held throughout the Gulf States March 20-April 4, 1995, to distribute manuals and placards.

Suzanne Horn reported that recently a claim for reimbursement under the MFCMA from the state of Oregon was received in Washington where quite a few hours were listed that were not only the hours to make the case but also patrol hours. The claim was pending legal review but has recently been approved. State members of the LEC may wish to discuss this and investigate the possibility of submitting their claims in a similar way. Suzanne will distribute copies of these claims to the LEC for review and discussion at the ISSC meeting in June.

USCG Report

Robert Perkins reported that although the recent Haitian and Cuban exodus and vessel traffic law enforcement (especially on holiday weekends) are part of USCG efforts, active fisheries enforcement continues to be a primary effort of District 8.

Changes in U.S. Coast Guard Certificate of Documentation

In response to Bill Robinson's concerns regarding the USCG's recent change in vessel documentation form, the Commission invited a representative from the USCG Documentation Office to this meeting (Attachment 3). Captain T.E. Thompson responded that resources were not available at this time to send a representative and referred the request to Thomas Willis of the Vessel Documentation and Tonnage Survey Branch in Washington, DC (Attachment 4). The LEC requested Rick Leard write a letter from the Commission to Thomas Willis requesting further clarification of the new documentation and potential problems commercial fishermen may face regarding questions of home port, hailing port, and address of owner. Is the USCG aware of the potential problems here, and how do they respond to these concerns? The LEC further noted the Commercial Fisheries Advisory Committee and Commission should be made aware of this situation.

In a related issue, Kevin McDonald asked for clarification of the point of contact (local USCG station or the central documentation office?) to trace a vessel's documentation. The LEC agreed to include this request in the letter.

State Net Bans/Proposed Regulations

Bruce Buckson reported that the Florida Marine Fisheries Commission proposed rules are under challenge. Hearing officers have 60 days to provide a judgement, and if ruled in favor of the commission, the rules may be as late as May before being completed. The rules then go before the governor and cabinet to be enacted into law which may make it as late as June before final MFC rules are in force. The way the net ban amendment is written, it does not have to have MFC rules to make it effective. As an amendment to the constitution, it is enforceable law with penalties that are established by statute and referred to within the amendment. Either way, the task of enforcement is there whether by rule or by amendment. Coastwatch meetings are being held explaining what the amendment says and what it will do. In order not to duplication public education, most efforts are being delayed until after the new rules are in place. Approximately 6,000 commercial net fishermen will be affected by the net ban, and a considerable number of shrimp fishermen will be affected.

Other Business

In the recent CSP/RecFIN meeting in Jacksonville, were enforcement representatives present? Issues and questions to be discussed included protection of data confidentiality and legitimate uses, analysis and management, law enforcement litigations, NMFS use of confidential data to prosecute a federal case, can states give confidential data to prosecute, etc. The LEC requests that copies of those minutes be distributed to the LEC.

In other business, Bill Robinson noted a limited entry bill for bay/bait shrimp boats with a buy-back provision is before the Texas Legislature.

There being no further business, the meeting adjourned at 11:45 am.

CONSISTENCY OF REGULATIONS

A white paper discussion of the problems and needs for Gulf-wide actions to implement consistent size restrictions and other regulations where possible.

Problem Statement

Inconsistency of regulations, particularly minimum and maximum size limits, among the Gulf states and the Gulf of Mexico Fishery Management Council (GMFMC) create numerous problems associated with the interaction of management with users. Primary problems accrue to enforcement personnel and users. Users in a given state are sometimes unfamiliar with the size regulations in other states and the exclusive economic zone (EEZ); consequently, they may unknowingly be in violation of laws as they move from one jurisdiction to another. Unscrupulous users may also illegally report catches and landings from the state with the smallest size restrictions.

Enforcement personnel must witness violations of regulations, and catches are most often scrutinized at the dock. As a result, enforcement personnel often cannot enforce state laws because they cannot identify the jurisdiction of capture. On-land transportation exacerbates the problem because individual carriers may possess fish purported to have been taken from multiple jurisdictions.

Managers also experience social and political problems from users who do not understand the rationale for varying size limits particularly when larger minimum size limits are in effect in one state while smaller size limits are in effect in an adjacent state or the EEZ.

Introduction

Size limits have been employed by all five Gulf states in various marine fisheries. They have been shown to be an effective means of controlling harvest until members of a given year class have become sexually mature and reproduced at least once. This criteria has helped to provide continued biological integrity of a given, fished stock.

States have adopted minimum size limits based on conservation standards and escapement goals that are designed to allow a set number or percentage of juvenile fish to escape capture, mature, and spawn. These standards and goals may be achieved in more than one way; consequently, states have developed size restrictions that pose the least disruption to social and economic interests of users in their respective states at any given time. Because conservation standards and escapement goals have varied from state-to-state (and even in areas within a given state) and because of differences in the social and economic climates among states, various size limits for a given species have been adopted. This variation has also been affected by the fact that individual states have taken actions to modify size limits based primarily on the individual state's assessment of need and with limited or no communication with other states.

Background

On October 18, 1989, the Gulf States Marine Fisheries Commission (GSMFC) Law Enforcement Committee (LEC) discussed a request from the five state directors to draft consistent, model language for regulations governing the interstate transport of seafood and seafood products. This effort culminated in a report to the GSMFC dated September 20, 1990, wherein the LEC recommended uniform invoice forms and procedures for their use, packing requirements, and vehicle marking requirements. Although not part of the initial request, the LEC also noted enforcement problems associated with numerous, varying commercial size limits. They included in the report a recommendation that if there is no biological reason for different commercial or recreational size limits, uniform size limits should be implemented. In discussing the status of the oyster and black drum fishery management plans (FMPs) on October 17, 1990, a similar recommendation was made to the State-Federal Fisheries Management Committee (S-FFMC). This request included a provision that no tolerance should be allowed for possession of undersized or oversized fish.

The LEC continued to discuss this issue at their meetings and at Oyster and Black Drum Technical Task Force (TTF) meetings, and on October 16, 1991, the S-FFMC voted to hold a special meeting to address consistency of regulations particularly associated with problems between Mississippi and Louisiana and Mississippi and Alabama. This meeting was held on December 10, 1991, and included management and enforcement representatives from Alabama, Mississippi, Louisiana, and the National Marine Fisheries Service. Although a great deal of discussion ensued regarding the discrepancies in regulations and reasons for them, no consensus action was taken, but the group agreed to pursue several action points and to continue to document the magnitude of the problem.

At their meeting on April 8, 1992, the LEC stressed the need for its representatives on Interjurisdictional FMP TTFs to actively seek the incorporation of language that promotes consistency without tolerance. The S-FFMC also met on April 8, 1992, and discussed the results of the December 10, 1991, meeting. Members agreed to continue to discuss the issue and identify the basis for regulations.

On October 14, 1992, the S-FFMC moved to set up a special task force of state's representatives to review size limits and identify any species for which changes were possible. GSMFC staff were to develop a species list and charge for the task force. A meeting was tentatively scheduled for January 1993. In March 1993, the LEC, Technical Coordinating Committee, and S-FFMC addressed the consistency of regulations issue. The TCC noted that there were differences among the Gulf states that might preclude changing regulations for the sake of consistency, and education of these differences may be preferable to changes. The S-FFMC discussed problems with scheduling a spring 1993 meeting and noted that some of the previously discussed problems had been resolved. The TCC asked each state to examine their regulations and the scientific rationale for them.

At the October 20, 1993, meeting, the LEC voted again the ask the GSMFC to seek adoption of uniform size limits, particularly for amberjack, cobia, flounder,

king mackerel, Spanish mackerel, snappers, speckled trout, and black drum. The request also included consistency in measuring practices. The GSMFC approved a motion to invite state directors and enforcement personnel to a meeting that Mississippi would hold to discuss uniform commercial size limits. Scheduling problems precluded Mississippi from holding this meeting, and on March 14, 1994, the LEC again voted to recommend to the GSMFC that uniform commercial size regulations be adopted for the aforementioned species with the addition of pompano. At their April 7, 1994, meeting the GSMFC voted to ask the LEC to develop this "white paper discussion" of the consistency of regulations issue.

Recommendations

- Although there may be legitimate biological, social, and economic reasons for variations in size limits among states, they have not been specifically identified and justified on a species-by-species basis. States and the GMFMC should review the rationale and process through which existing size limits were adopted and develop justifications as to why such regulations should not be modified to become consistent with adjacent state's size limits.

- In view of the problems that inconsistent regulations produce for enforcement personnel and users, states and the GMFMC should explore ways to increase consistency of size limits especially with adjoining, neighbor states and the adjacent EEZ.

- States and the GMFMC should review existing regulations that allow for tolerance in size limits (some retention of fish under or over the specified size restriction) and develop rationale as to why it should not be eliminated.

- States and the GMFMC should review existing criteria for measuring fish (SL, TL, FL) and develop species-specific, consistent criteria.

- States and the GMFMC should develop uniform, species-specific regulations regarding at-sea processing of seafood including, but not limited to, fileting, heading, and declawing.

GULF STATES MARINE FISHERIES COMMISSION
P.O. Box 726, Ocean Springs, MS 39566-0726
(601) 875-5912 (FAX) 875-6604

Larry B. Simpson
Executive Director

November 3, 1994

Dr. Andrew J. Kemmerer
Regional Director
National Marine Fisheries Service
Southeast Region
St. Petersburg, FL 33702

Rear Admiral R.C. North
Eighth District
U.S. Coast Guard
501 Magazine Street
New Orleans, LA 70130

Dear Andy and Rear Admiral North:

At the recent Gulf States Marine Fisheries Commission meeting held in New Orleans, Louisiana, the issue of Coast Guard and NMFS enforcement of the use of turtle excluder devices (TEDs) was discussed. The concern of the Commission is how to improve this process both for enforcement and the industry.

Some of the thoughts advanced to achieve improvement were to better inform industry on the procedure used to measure the angle of the grids for compliance of properly installed TEDs. Further, there is confusion in the industry regarding the need for floats if aluminum hollow bars are used for grid material. Please make every effort to standardize your agencies position and communication on this issue.

The industry feels the use of enforcement warnings should be liberalized. Warnings are particularly appropriate when floats or the angle of the grid are found to be in noncompliance. Enforcement personnel in the field should be informal and reminded of the fact that gear can and will be altered by the condition encountered by the trawl during a specific tow. Compliance was at 94% plus before the latest problems which many view as just a corrective anomaly. The industry has to become knowledgeable about the best use of these designs under various conditions and will change designs to meet those conditions; therefore, some adjustments in how they are optimally used will no doubt occur.

We suggest looking into a certification document for boarded and checked gears which could be utilized to reduce the disruptions of multiple boardings over short periods of time. It could be time specific, marked by the enforcement officers and valid until the certified

time has expired, for example. Many feel that net makers should be certified as proper producers of legal gear having demonstrated the production of gear and knowledge of all the NMFS requirements. Then if an unmodified gear is cited, the net maker could also be cited.

The last suggestion of the Commission is in lieu of a fine, you might consider requiring a one or two day educational course on TEDs and their use for the cited violator. This method is used in some highway violations and upland game violations and would lead to better long-term compliance with knowledge.

The purpose of these suggestions is to improve the process, not to obfuscate the issues of TED requirements. Efficient, reduced disruption in fishing and education with regard to proper design and use of these required gears are goals we all share. Efforts to foster better communication and knowledge of satisfactory compliance within the industry will bolster the sagging relationship between the agencies and the fishermen, thereby leading to greater compliance in the long term.

Thank you for the opportunity to provide these suggestions. If we can be of any additional assistance, please don't hesitate to call.

Sincerely,

Joe Gill, Jr.
Chairman

LBS:cdb

cc: Commissioners, Proxies, Others
Commercial Fisheries Advisory Committee
Law Enforcement Committee

GULF STATES MARINE FISHERIES COMMISSION
P.O. Box 726, Ocean Springs, MS 39566-0726
(601) 875-5912 (FAX) 875-6604

Larry B. Simpson
Executive Director

March 1, 1995

Captain T.E. Thompson
Commanding Officer, Marine Safety Office
1440 Canal Street
New Orleans, Louisiana 70112

Dear Captain Thompson:

The Gulf States Marine Fisheries Commission's (GSMFC) Law Enforcement Committee (LEC) will meet from 8:00 am until 12:00 noon on Thursday, March 16, 1995, in Orlando, Florida. One of the agenda topics to be discussed at the meeting concerns changes in U.S. Coast Guard certificate of documentation (see attached letter from Assistant Commander Bill Robinson). In talking with W.A. Gougis in your office, I have also been advised of proposed consolidation of vessel documentation offices. I believe that this matter may also be of interest to our committee.

With this letter, I would like to formally request that someone from your office attend this meeting and advise us on these issues. For your information I am also faxing with this letter a listing of law enforcement representatives on the LEC. Some background information on the GSMFC and a meeting notice will follow by regular mail. I hope that you will be able to send someone, and if you have any questions, please do not hesitate to call.

Sincerely,

Larry B. Simpson
Executive Director

LBS:cby

COPY

TEXAS
PARKS AND WILDLIFE DEPARTMENT
4200 Smith School Road • Austin, Texas 78744 • 512-389-4800

ANDREW SANSOM
Executive Director

February 22, 1995

COPY

Major Jerry Waller
Alabama Marine Resources Division
P. O. Box 189
Dauphin Island, Alabama 36528

Dear Major Waller:

As per our telephone conversation on February 23, 1995, I am faxing a copy of this letter to you concerning an agenda item for the GSMF meeting in February. The item to place on the agenda is as follows:

CHANGES IN UNITED STATES COAST GUARD CERTIFICATE OF DOCUMENTATION WITH REGARD TO HAILING PORT, HOME PORT, AND ADDRESS OF OWNER

1. How will states be affected that use home port to determine resident or non-resident license on commercial vessels?

2. Do all states use home port or address of owner to determine type of license required?

3. Does the use of home port versus address of owner allow vessels to fish as residents in more than one state?

4. What is the value of specifying a vessel's home port for law enforcement purposes?

I would appreciate your consideration to place this item on the agenda. Hopefully, a representative from the Coast Guard Documentation Branch will be available to answer questions about the changes in documentation.

I will be looking forward to visiting with you in Orlando.

Sincerely,

Bill Robinson

Bill Robinson
Assistant Commander
Law Enforcement Division

BR:lmm

U.S. Department of Transportation
United States Coast Guard

Officer in Charge (ao)
U.S. Coast Guard
Marine Safety Office

1440 Canal Street
New Orleans, LA
70112-271:
(504) 589-6196

16713

Gulf States Marine Fisheries Commission
Attn: Larry B. Simpson
P.O. Box 726
Ocean Springs, MS 39566-0726

Subj: GULF STATES MARINE FISHERIES COMMISSION'S/LAW ENFORCEMENT COMMITTEE 1995 MEETING

Gentlemen:

Thank you for your letter of 1 March 1995 requesting that a representative from the Vessel Docuemtnation Office attend your meeting on 16 March 1995. The Marine Safety Office does not have the resources at this time to send a representative to the meeting.

I have referred your request to:

Thomas L. Willis
Branch Chief,
Vessel Documentation and Tonnage Survey Branch
2100 Second St., SW, RM. 1312
Washington, DC 20593-0001
Phone: 202-267-1477

Contact Mr. Willis for any information regarding your request.

Sincerely,

T. E. THOMPSON
Captain, U. S. Coast Guard
Commanding Officer,
Marine Safety Office
By direction of Commander,
Eighth Coast Guard District

APPROVED BY:

COMMITTEE CHAIRMAN

STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE (S-FFMC)
MINUTES
April 24, 1995
Washington, D.C.

Larry Simpson, chairman, called the meeting to order at 1:00 p.m. He briefed those present on the membership and duties of the Committee and noted that only members would vote. He expressed the historical significance of the meetings taking place this week. It is the first joint meeting of all three Commissions: Atlantic, Gulf and Pacific.

He requested that everyone introduce themselves. The following persons attended:

Members
Ed Conklin, FDEP, Tallahassee, FL
Walter Tatum, ADCNR/MRD, Gulf Shores, AL *(proxy for James Martin)*
Paul Hammerschmidt, TPWD, Austin, TX *(proxy for Andrew Sansom)*
Corky Perret, LDWF, Baton Rouge, LA
Dan Furlong, NMFS, St. Petersburg, FL *(proxy for Andy Kemmerer)*
Jerome Butler, USFWS, Atlanta, GA *(proxy for Noreen Clough)*
Larry Simpson, GSMFC, Ocean Springs, MS *(nonvoting)*

Staff
Ron Lukens, GSMFC, Ocean Springs, MS
Nancy Marcellus, GSMFC, Ocean Springs, MS
Ginny Herring, GSMFC, Ocean Springs, MS

Others
George Sekul, Biloxi, MS
Jan Harper, Lake Jackson, TX
Buck Sutter, NMFS, St. Petersburg, FL
Tom McIlwain, NMFS, Pascagoula, MS
John Merriner, NMFS, Beaufort, NC
Jerry Waller, ADCNR/MRD, Dauphin Island, AL
Doug Fruge, USFWS, Ocean Springs, MS
Julius Collins, GMFMC, Brownsville, TX
Leroy Kiffe, Lockport, LA
Bill Cole, USFWS, Morehead City, NC

Adoption of Agenda

The agenda was adopted as presented.

Approval of Minutes

The minutes of the October 19, 1994 meeting were approved with the following changes: The second sentence in paragraph 5, on page 45 was deleted because it was unclear (He noted that although anadromous fisheries ..... federally owned lands).

changes included season changes enacted by all states, long-term data maintenance, computerized Captain's Log, and decline in bait use.

* Paul Hammerschmidt motioned to approve the FMP and to submit to the full Commission for final approval. E. Conklin seconded. The motion was approved unanimously.

Discussion of IJF Program Funding

L. Simpson reported an increase in IJF Program funding split evenly with all three Commissions. 1995 funding level was $500,000. He will continue efforts to seek funding of full authorization, which is $600,000.

Final Action on the Gulf Sturgeon Recovery Plan

R. Lukens reviewed the background and need of the Gulf Sturgeon Recovery Plan. Subsequent to this species being listed as threatened under the Endangered Species Act (ESA), an agreement was entered into with USFWS to jointly develop the plan as a recovery/management plan. The plan has been through two public reviews, was approved by the TCC on March 16, 1995 and is now submitted to the S-FFMC for approval prior to be submitted to the full Commission. This plan contains no regulatory action requirements. The thrust of the plan is to establish a protocol for recovery actions and research needs.

* C. Perret motioned to approve the Gulf Sturgeon Recovery Plan and to forward it to the full Commission for final action. E. Conklin seconded. The motion was approved unanimously.

Discussion of the Recreational Fisheries Advisory Committee

R. Lukens distributed an information sheet regarding background, recent decisions and directives and alternative solutions regarding a Recreational Fisheries Advisory Committee. He pointed out the compact legislation noted that the commission should have an advisory committee of "salt water anglers" and that current Commission guidelines require that recreational fishery advisors be included and/or involved in FMP planning. He stated that alternative solutions were developed for review by the S-FFMC at their request. Although a Recreational Advisory Committee did exist during the 1950s it became inactive and renewed activity did not occur until 1982. This committee was made up of state and federal marine fisheries personnel. They functioned well until 1990, when recommendations regarding internal organization, disbanded this group and a new committee was established made up of salt water recreational anglers, two of which would be nominated by each State Director. The first meeting was held in April 1991. Out of ten members, only three attended. This lack of participation could have been the result of conflicts with day time jobs and/or cost of travel. Interest continued to dwindle and although State Directors attempted to renew interest by reappointing committee members this committee failed.

R. Lukens reviewed various options which included: 1) have the State Directors reappoint the Committee; 2) establish a committee comprised of recreational and/or conservation organizations; 3) have the State Directors reappoint the Committee and conduct business via conference calls and mail; 4) establish a committee comprised of recreational and/or conservation organization and conduct business via conference calls and mail; 5) have the State Directors appoint a committee from local recreational fishing organizations; and, 6) have the State Directors appoint a committee from any organization or individuals which they deem appropriate and have the State support travel for its members.

Discussion indicated that travel cost were a major problem. It was discussed that large organizations may have the funds necessary to send representatives versus individuals. It was suggested that the Commission pay for the committee members travel. R. Lukens pointed out that commercial advisory members are not paid by the Commission and it would not be appropriate to pay one groups expenses and not the other. P. Hammerschmidt

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9721 Executive Center Drive, N.
St. Petersburg, FL 33702

June 16, 1995 F/SEO:SAS

Ms. Ginny Herring
Gulf States Marine Fisheries Commission
P.O. Box 726
Ocean Springs, MS 39566-0726

Dear Ms. Herring:

As we discussed by telephone today, enclosed are Dan Furlong's corrections to the Draft Minutes of the 45th Annual Spring Meeting.

Sincerely,

Sue Smith for
Daniel T. Furlong
Deputy Regional Director

Enclosures

All April 24-24 minutes also — changes made VKH

Corrections are in BOLD:

National Marine Fisheries Service

D. Furlong reported that NMFS was sued last summer by several groups regarding failure to protect species under the Endangered Species Act (ESA). Consequently, the NMFS, under section 7 of the ESA, reinitiated a consultation **related to identifying** methods for reducing man-induced mortality on sea turtles. Because of this action, the litigants decided to hold off on their suit contingent on NMFS's action under section 7. The biological opinion for this consultation identified shrimping as a jeopardy activity and in order for shrimping to continue, the industry needs to **follow the recommended reasonable and prudent alternatives.** The short-term requirement of the opinion was that NMFS needed to have law enforcement personnel at specified levels. The long-term requirements include a wide variety of improving TED regulation compliance by such methods as**: conducting TED** workshops, **implementing a** shrimp vessel registration system **and developing an emergency response plan.**

New Paragraph

The closures of NMFS Stennis Space Center **and Panama City** facilities will not occur this fiscal year. In 1994, Congress passed a law which mandated government to reduce its size over the next five years by 40,000 full-time equivalents (FTEs) per year. Unfortunately **for NMFS, it is mandated to reduce 348 FTEs.** Through negotiations, the number was reduced to 246 FTEs. Several personnel decided to opt for early retirement and the number was further reduced to 144 FTEs. The **buy-out program for early retirement was reopened and the FY 1995 target** number was reached. Thus, the closures were avoided for this year, but the same action may occur during **FY 1996 or FY 1997.**

54-57

51-55

39-44

SEE BOLD PRINT

NMFS/Southeast Regional Office (SERO) Report

D. Furlong reported on behalf of the NMFS/SERO. He discussed several legal suits that are pending regarding sea turtles. Two strandings off of the Texas and Louisiana coast have resulted in suits being filed by Earth **Island Institute** and the **Center for Marine Conservation.** They charge that NMFS is not being responsive to the Endangered Species Act and they have called for closure of the shrimp industry. The suit filed by Earth Island has been satisfied. **The suit by the Center for Marine Conservation has not been** resolved and will go to trial in July.

NEW PARAGRAPH

Another suit by Earth Island Institute is requesting an embargo against Mexican shrimp imported into the U.S. This case is still open.

The State Department is also being sued by Earth **Island Institute** and a Georgia fishermen organization. They call for other countries to accept U.S. turtle regulations or face embargo of their fishery products. The case accuses the Department of Commerce of developing regulations that are **too** narrow in scope.

D. Furlong reported that the National Fisheries Institute and Texas Shrimp Association have sent NMFS a sixty day notice regarding dredging activity in the Gulf. They stated that turtle mortality in areas where dredging has occurred is higher and that no shrimping activity was present. Earth **Island Institute** also has filed a sixty day notice and disagrees with NMFS biological opinion. D. Furlong indicated that dredging activity will proceed when turtles are not present. C. Perret stated that these areas should also be opened to shrimping activities when turtles were not present.

D. Furlong reported that unless direct observation **is** made, it is assumed that if shrimp activity is going on it is the cause of turtle loss. **Turtle mortality decreases with** less shrimping activity and more enforcement activity. L. Kiffe pointed out that reports indicate that shrimpers are complying with turtle regulations at a rate of 95%.

J. Collins stated that turtle mortality was higher last year than in the past 5 years prior to turtle regulations. D. Furlong responded that data is based on nesting data and that nesting has increased last year along with strandings.

D. Furlong briefly discussed recent strandings off of the Galveston coast. Phase I of the Emergency Response Plan (biological opinion) will probably go into affect. This phase calls **for increased enforcement and possible future gear restrictions.**

L. Simpson requested that D. Furlong respond to the Commission's recommendations regarding Section 306 Magnuson Act Amendments. D. Furlong stated that NMFS had no position and would react when Congress takes action.

Other topics discussed by D. Furlong included reorganization within NMFS. He stated that senior executive positions would be reduced from 11 to 7. This included the elimination of the senior enforcement position. **New divisions were** being developed to replace **other divisions. The proposed divisions will** be 1) Science and Technology; 2) Protective Resources; 3) Habitat Conservation; 4) Fishery Management; and 5) Operation and Management Information. Some personnel will be retiring, other personnel that will be displaced will be absorbed into other areas. Regional Directors will be changed to Regional Administrators with reduced activities with the fishery councils and increased involvement in scientific programs.

End of Corrections.

has recently completed its annual red drum report and presented it to the Louisiana Fisheries and Wildlife Commission. The report shows that the current regulations allow for a 65-70% escapement rate. The Commission voted to recommend to the legislature that management activities stay at status quo. The Department is conducting a hooking mortality study for spotted seatrout and the mortality rates are similar to those observed by Alabama. There seems to be some correlation between mortality and the size of the fish. All the public oyster grounds opened as expected except in Calcasieu Lake where the opening was delayed due to some health concerns. The inshore shrimp season was closed in December except in an area near the Mississippi River where it was extended until January since there were still some large concentrations of white shrimp. In February, the Department closed portions of Louisiana territorial waters to protect small overwintering shrimp. The Department has implemented an oil spill notification network and is continuing to develop a state contingency plan for spills in Louisiana. In response to the net ban in Florida, the Commission has passed a notice of intent to establish a moratorium of saltwater gill, trammel etc. net licenses. There are several legislative initiatives currently being discussed on the floor

Texas

D. Shively reported that the newly elected Governor George W. Bush appointed four people to the TPWD Commission: Lee Bass (Fort Worth) was reappointed for another six-year term and named chairman, Susan Howard (actress/conservationist), Richard Heath (businessman) and Nolan Ryan (baseball legend). The nominations were approved by the Texas Senate. Senate Bill 750 was filed in February and Representative Tom Uher filed a companion bill (Bill 1841) in the House in March. In addition, another bill (Bill 825) was filed in March. The bills are undergoing senate hearings now before going to committee. The bills create a system for managing licenses of bay and bait shrimpers and is the culmination of one year of negotiations with the shrimping industry. Some of the basic elements of the bills include: eligibility, license renewal, transferability of licenses, capital stuffing, anti-monopoly, review board, and license buyback program. The Coastal Fisheries Division has three regulatory proposals undergoing public hearings at present. The first is an exempt red drum tag. This proposal makes an Exempt Red Drum Tag and Duplicate Exempt Red Drum Tag available to those individuals (senior citizens and youth 17 and under) who are not required to have a fishing license. The tag would cost $6.00 and allow these exempt anglers to retain one red drum over 28 inches. The next is snook bag and size limit reduction. This proposal reduces the bag and possession limits, and increases the minimum size of snook to help maximize the snook resource and opportunities for harvest. These regulation changes should encourage more catch and release on this limited stock. The daily bag would be reduced from 3 to 1, possession reduced from 6 to 2, and the minimum length increased from 20 to 24 inches. And the last is finfish exemption in commercial bait shrimp trawls. This change will provide additional live fish as bait for sport anglers during the summer period when bait shrimp are less abundant. In addition, the bycatch of bait shrimp trawls should be reduced because fewer trawls will be needed to retain the same amount of bait fish. The proposal allows the retention of 1200 live non-game fish not regulated by bag or size limits between 1 July and 31 August aboard a licensed commercial bait shrimp vessel. The Division will review the public comments and present final recommendations to the Commission on March 23. The Commission will then either adopt or deny the Division's proposals. In addition, the Division is reviewing a request for the Commission to legalize a suction device known locally as sand pump. This devise is used to harvest ghost shrimp for bait. If the Commission approves the action, a rule change proposal will go to public hearings in May or July.

National Marine Fisheries Service

THE NE COMMENDED REASONABLE AND PRUDENT ALTERNATIVES.

D. Furlong reported that NMFS was sued last summer by several groups regarding failure to protect species under the Endangered Species Act (ESA). Consequently, the NMFS, under section 7 of the ESA, reinitiated a consultation related to the identifying methods for reducing man-induced mortality on sea turtles. Because of this action, the litigants decided to hold off on their suit contingent on NMFS's action under section 7. The biological opinion for this consultation identified shrimping as a jeopardy activity and in order for shrimping to continue, the industry needs to follow ~~established rules~~. The short-term requirement of the opinion was that NMFS needed to have law enforcement personnel at specified levels. The long-term requirements include a wide variety of improving TED regulation compliance by such methods as: conducting ~~boarding party~~ workshops, implementation of shrimp vessel

TED

ING A

NMFS/Southeast Regional Office (SERO) Report

D. Furlong reported on behalf of the NMFS/SERO. He discussed several legal suits that are pending regarding sea turtles. Two strandings off of the Texas and Louisiana coast have resulted in suits being filed by Earth Island and the Center for the Environment. They charge that NMFS is not being responsive to the Endangered Species Act and they have called for closure of the shrimp industry. The suit filed by Earth Island has been satisfied. The Center for the Environment has not been resolved and will go to trial in July. Another suit by Earth Island is requesting an embargo against Mexican shrimp imported into the U.S. This case is still open.

The State Department is also being sued by Earth Island and a Georgia fishermen organization. They call for other countries to accept U.S. turtle regulations or face embargo of their fishery products. The case accuses the Department of Commerce of developing regulations that are to narrow in scope.

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D. Furlong reported that unless direct observation if made, it is assumed that if shrimp activity is going on it is the cause of turtle loss. Mortality proves to decrease with less shrimping activity and more enforcement activity. L. Kiffe pointed out that reports indicate that shrimpers are complying with turtle regulations at a rate of 95%.

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D. Furlong briefly discussed recent strandings off of the Galveston coast. Phase I of the Emergency Response Plan (biological opinion) will probably go into affect. This phase calls for ~~no intense fishing effort and minimal shrimping activity~~ increased enf. + post future gear modifications

L. Simpson requested that D. Furlong respond to the Commission's recommendations regarding Section 306 Magnuson Act Amendments. D. Furlong stated that NMFS had no position and would react when Congress takes action.

Other topics discussed by D. Furlong included reorganization within NMFS. He stated that senior executive positions would be reduced from 11 to 7. This included the elimination of the senior enforcement position. New ~~departments~~ were being developed to replace other ~~departments~~. The ~~existing departments~~ will be 1)Science and Technology; 2) Protective Resources; 3) Habitat Conservation; 4) Fishery Management; and 5) Operation and Management Information. Some personnel will be retiring, other personnel that will be displaced will be absorbed into other areas. Regional Directors will be changed to Regional Administrators with reduced activities with the fishery councils and increased involvement in scientific programs.

C. Perret felt that downgrading enforcement was a serious mistake since most problems require increased enforcement effort.

USFWS Region 4 Office Report

J. Butler reported on behalf of USFWS Region 4. He stated that in light of downsizing in government and current budget restraints the FWS was resetting priorities. They would discontinue Farm Pond Projects and private

approved w/changes

COMMISSION BUSINESS MEETING
MINUTES
April 24, 1995
Washington, D.C.

Chairman Ed Conklin called the meeting to order at 3:00 p.m. He welcomed everyone and stated that he was pleased to be holding this meeting in Washington, D.C. jointly with the Atlantic and Pacific States. L. Simpson noted that a quorum was present. He reviewed pertinent rules and regulations regarding the appropriate meeting procedures. Voting is by individual Commissioners. If there is a questions about the vote, each state delegation shall cast one vote. If three Commissioners are present, two out of three will carry the State vote. If only two Commissioners are present from a state, they must agree or their vote will offset each other. If only one Commissioner from a state is present his vote shall represent the state.

The following Commissioners and/or proxies were present:

Commissioners
Ed Conklin, FDEP, Tallahassee, FL
Walter Tatum, ADCNR/MRD, Gulf Shores, AL *(proxy for James Martin)*
Paul Hammerschmidt, TPWD, Austin, TX *(proxy for Andrew Sansom)*
Corky Perret, LDWF, Baton Rouge, LA
Larry Simpson, GSMFC, Ocean Springs, MS
George Sekul, Biloxi, MS
Jan Harper, Lake Jackson, TX
Leroy Kiffe, Lockport, LA

Staff
Ron Lukens, GSMFC, Ocean Springs, MS
Nancy Marcellus, GSMFC, Ocean Springs, MS
Ginny Herring, GSMFC, Ocean Springs, MS

Others
Dan Furlong, NMFS, St. Petersburg, FL *(proxy for Andy Kemmerer)*
Jerome Butler, USFWS, Atlanta, GA *(proxy for Noreen Clough)*
Buck Sutter, NMFS, St. Petersburg, FL
Tom McIlwain, NMFS, Pascagoula, MS
John Merriner, NMFS, Beaufort, NC
Jerry Waller, ADCNR/MRD, Dauphin Island, AL
Doug Fruge, USFWS, Ocean Springs, MS
Julius Collins, GMFMC, Brownsville, TX
Bill Cole, USFWS, Morehead City, NC

Adoption of Agenda

The agenda was adopted as presented.

Approval of Minutes

The minutes of the October 20, 1994 meeting were approved as presented

NMFS/Southeast Regional Office (SERO) Report

D. Furlong reported on behalf of the NMFS/SERO. He discussed several legal suits that are pending regarding sea turtles. Two strandings off of the Texas and Louisiana coast have resulted in suits being filed by Earth Island Institute and the Center for Marine Conservation. They charge that NMFS is not being responsive to the Endangered Species Act and they have called for closure of the shrimp industry. The suit filed by Earth Island has been satisfied. The suit by the Center for Marine Conservation has not been resolved and will go to trial in July.

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Other topics discussed by D. Furlong included reorganization within NMFS. He stated that senior executive positions would be reduced from 11 to 7. This included the elimination of the senior enforcement position. New divisions were being developed to replace other divsions. The proposed divisions will be 1)Science and Technology; 2) Protective Resources; 3) Habitat Conservation; 4) Fishery Management; and 5) Operation and Management Information. Some personnel will be retiring, other personnel that will be displaced will be absorbed into other areas. Regional Directors will be changed to Regional Administrators with reduced activities with the fishery councils and increased involvement in scientific programs.

C. Perret felt that downgrading enforcement was a serious mistake since most problems require increased enforcement effort.

USFWS Region 4 Office Report

J. Butler reported on behalf of USFWS Region 4. He stated that in light of downsizing in government and current budget restraints the FWS was resetting priorities. They would discontinue Farm Pond Projects and private aquaculture operations in addition to transferring eleven (11) hatchery operations to the States or closing them completely if necessary. He explained that a three year grant would be provided to States wishing to take over hatchery operations. Under these grants, FWS would provide 100% of cost of operations for year I, 80% for year II, and 40% for year III. C. Perret stated that these hatcheries were necessary and many states would have trouble funding operations without more

assistance. E. Conklin pointed out the draft letter that was in the briefing material. It was to Mollie Beattie, Director of USFWS and stated the importance of the hatcheries and if it was necessary to release the hatcheries to the States it opposed use of Sport Fish Restoration Administrative Funds.

R. Lukens explained ongoing efforts to keep stocking striped bass. Closing these hatcheries will negatively affect efforts.

* C. Perret motioned to send the letter to M. Beattie. W. Tatum seconded. The motion passed unanimously.

J. Butler reported the FWS recognized the importance of funding the Anadromous Act although no funding has been available since 1992. FWS will support reauthorization of the Act in November 1995 but they will not recommend funding.

Other discussion included reorganization within FWS. The new Regional Director is Noreen Clough. The new director for the Southwest Region in Nancy Caufman. Bob Cooke has been appointed Assistant Director of Federal Aid.

Technical Coordinating Committee (TCC) Report

C. Perret reported that the TCC met on March 16, 1995 in Lake Buena Vista, Florida. Among topics discussed were wetlands restoration and implications to fisheries resources on the Bonne Carre freshwater diversion project. The committee received a presentation on the use of coal ash in marine waters by Mississippi Power Company and the Artificial Reef Subcommittee. The TCC reevaluated the use of coal combustion byproduct ash as artificial reef material and withdrew their concerns regarding its use. They recommended that the Commission modify its resolution regarding ash byproducts to reflect their current knowledge. C. Perret motioned to accept the TCC recommendation. W. Tatum seconded. The motion was approved unanimously.

Other actions of the TCC included approval of the Gulf Sturgeon Recovery Plan that will be sent to the S-FFMB for approval. (It was approved by the S-FFMB on 4/24/95.) The various State and Federal Agencies provided brief overviews of activities in their organizations.

TCC Subcommittee provided reports of their activities. Reports were received from the following subcommittees: Anadromous Fish; Artificial Reef; Crab; Data Management; Habitat; and, SEAMAP. Some action was required by the TCC on various subcommittee issues.

The Anadromous Fish Subcommittee expressed concern regarding current regulations that inadequately protect the striped bass brood stock in Indian Creek Lake in the state of Louisiana. The TCC recommends that the Commission send a letter to the State of Louisiana requesting that they take necessary actions to protect striped bass in this lake. The TCC also recommended that the Anadromous Fish Subcommittee develop a proposal to focus on restoring a self sustaining population of striped bass in the Pascagoula River. The proposal would be for Sport Fish Restoration Administrative Funds.

The TCC SEAMAP Subcommittee discussed the funds received by NMFS to conduct red drum work in the Gulf of Mexico. The TCC recommended that the GSMFC request that the member states review the membership of the TCC Red Drum Work Group and make changes as appropriate. Once this group is formed, they can discuss methods to use to collect data on the red drum off shore stocks.

The TCC Habitat Subcommittee has set tentative goals and objectives. Their goal: To promote conservation of marine fisheries by focusing on the relationship between quality and quantity of fisheries habitats to sustainable fisheries production. Their objectives include: 1) to identify habitat educational materials Gulf wide and to help coordinate its distribution; 2) to identify target audiences for program activities; and, 3) to facilitate a "buy in" program by fishing groups and others to produce and distribute marine habitat educational materials. This Subcommittee has been reorganized and will continue to meet as necessary.

* C. Perret motioned to accept all recommendations of the TCC. W. Tatum seconded. The motion was approved unanimously.

Law Enforcement Committee (LEC) Report

J. Waller reported that the LEC met on March 16, 1995 in Lake Buena Vista, Florida. Topics discussed included ISSC issues and proposed regulations regarding net bans. Of major concern was a white paper developed by the LEC discussing the problems and needs for Gulf-Wide actions to implement consistent size restrictions and other regulations where possible. J. Waller stated that this has been a priority for the LEC since it was reestablished in 1975. On behalf of the LEC he again requested a response from the Commissioners, particularly the State Directors. L. Simpson stated that a position on the white paper would be a difficult one. Two workshops have been held to address these issues, but differences between State's fisheries and regulations has prevented a resolution to the problems that exist due to inconsistent regulations. C. Perret agreed that differences in State laws and biological differences have prevented consistency among the States as well as Federal agencies. C. Perret motioned to write a response to the white paper addressing recommendations that can be resolved and to explain why actions cannot be taken on all recommendations. W. Tatum seconded. The motion passed unanimously.

Other actions requested by the LEC regarded USCG's recent change in vessel documentation forms. They are concerned that commercial fishermen may face a potential problem regarding questions of home port, hailing port, and address of owner. J. Waller requested that Commission staff write a letter to Thomas Willis, Vessel Documentation and Tonnage Survey Branch, Washington, D.C. requesting further clarification of the new documentation and potential problems commercial fishermen may face, and how do they respond to these concerns. In addition they would like a point of contact (local USCG station) to trace vessel's documentation. G. Sekul motioned to approve the request. C. Perret seconded. The motion was approved unanimously.

Commercial Fisheries Advisory (CFA) Committee Report

L. Simpson reported that the CFA was not able to meet in March 1995 as originally planned, due to conflict with other meetings. Some areas of interest to the CFA that are currently being addressed by persons involved with the committee are NFI actions regarding the Endangered Species Act (ESA) and Magnuson Fishery Conservation and Management Act (MFCMA) activities. L. Simpson distributed copies of C. Nelson's testimony on H.R. 39 and the reauthorization of the MFCMA and W. Anderson's testimony, on behalf of the Texas Shrimp Association, on the ESA. Both were presented to the House Committee on Resources. Other topics of interest include turtle issues; the Shrimp Fishery Emergency Response Plan ; and NMFS's report to Congress on Bycatch. A meeting for CFA will be scheduled in October 1995.

State-Federal Fisheries Management Committee (S-FFMC) Report

Because the S-FFMC had met just prior to this session, L. Simpson did not give a detailed report of their discussions (see minutes). Several items required action by the full Commission.

C. Perret stated that the 1995 Menhaden FMP Revision had been completed approved by the S-FFMC. He motioned that the FMP be given final approval by the Commission. W. Tatum seconded. The 1995 Menhaden FMP Revision was unanimously approved.

L. Simpson reported that the S-FFMC had approved the Gulf Sturgeon Recovery Plan. P. Hammerschmidt motioned for Commission approval of the Plan. C. Perret seconded. The Gulf Sturgeon Recovery Plan was unanimously approved. The Plan will now be submitted to USFWS and NMFS to begin the Federal approval process.

Joint Meeting Activities Information

L. Simpson invited all attendees to a joint reception being held in the Agricultural Hearing Room on Capitol Hill. He distributed information about the Atlantic and Pacific Marine Fisheries Commissions and an agenda for the joint sessions. He encouraged Gulf persons interested in activities of the Atlantic and Pacific Commissions to attend their open sessions.

The meeting adjourned at 4:50 p.m. The CBM will reconvene at 8:30 a.m. Tuesday, April 25.

approved w/ changes

COMMISSION BUSINESS MEETING
MINUTES
April 25, 1995
Washington, D.C.

Chairman Ed Conklin called the meeting to order at 8:35 a.m. He welcomed Jack Dunnigan, Executive Director, Atlantic States Marine Fisheries Commission. J. Dunnigan welcomed everyone to Washington, D.C. and thanked them for attending. He distributed the agenda for the National State Directors meeting to be held the following day. He stated that he looked forward to the joint sessions and hoped to hold more joint meetings in the future.

The following Commissioners and/or proxies were present:

Commissioners
Ed Conklin, FDEP, Tallahassee, FL
Walter Tatum, ADCNR/MRD, Gulf Shores, AL (*proxy for James Martin*)
Paul Hammerschmidt, TPWD, Austin, TX (*proxy for Andrew Sansom*)
Corky Perret, LDWF, Baton Rouge, LA
Larry Simpson, GSMFC, Ocean Springs, MS
George Sekul, Biloxi, MS
Jan Harper, Lake Jackson, TX
Leroy Kiffe, Lockport, LA

Staff
Ron Lukens, GSMFC, Ocean Springs, MS
Nancy Marcellus, GSMFC, Ocean Springs, MS
Ginny Herring, GSMFC, Ocean Springs, MS

Others
Dan Furlong, NMFS, St. Petersburg, FL
Jerome Butler, USFWS, Atlanta, GA
Buck Sutter, NMFS, St. Petersburg, FL
Tom McIlwain, NMFS, Pascagoula, MS
John Merriner, NMFS, Beaufort, NC
Doug Fruge, USFWS, Ocean Springs, MS
Julius Collins, GMFMC, Brownsville, TX
Bill Cole, USFWS, Morehead City, NC
Jack Dunnigan, ASMFC, Washington, D.C.

Recipient Selection of the Charles H. Lyles Award

C. Perret nominated Ed Joyce. E. Joyce has recently retired from the Florida Department of Natural Resources where he served as a proxy Commissioner for many years. In addition to his many committee and subcommittee appointments he was the immediate past Chairman for the Technical Coordinating Committee. W. Tatum seconded the nomination.

G. Sekul nominated Tommy Munroe of Munroe Petroleum in Biloxi, MS. He noted Mr. Munroe's contribution to marine research. He was instrumental in securing a research vessel for the Gulf Coast Research Laboratory and has spent his time and resources in enhancing efforts at the Marine Education Center in Biloxi. J. Harper seconded the nomination.

Commissioners voted by secret ballot. Ed Joyce was named the 1995-96 recipient of the Charles H. Lyles Award.

Gulf of Mexico Fishery Management Council (GMFMC) Report

Julius Collins, Chairman, GMFMC reviewed the status of Gulf of Mexico fisheries and current management issues. The GMFMC is currently drafting amendments to the Shrimp FMP to address reduction of shrimp trawl bycatch. These amendments are expected to be completed for public review no later than September 1995. The goal of the proposed amendment is to reduce the fishing mortality rate of trawls on juvenile red snapper by 50 percent, resulting in similar reductions for other finfish. Such reductions are proposed through use of bycatch reduction devices (BRDs) in trawls and possibly through areal and/or seasonal closures. The shrimp industry has cooperated fully throughout the research of these programs, but the proposal to require BRDs on trawls in part or in all Federal waters is a controversial one.

Another issue that has caused some controversy involves the reef fish fishery. The Council has been discussing alternatives for limited access systems to address a derby fishery for the red snapper commercial industry for several years. Current management strategies have not had full industry support and the Council will take action on a license limitation system in May. This proposed system will limit licenses for harvest to about one-third of the vessels that fish for red snapper with preferential treatment to vessel owners or operators dependent on red snapper in the 1990-1992 period. Red snapper restoration programs have been successful which has resulted in an abundance of fish. Because the recreational fishery has exceeded their allocation by approximately 3 million pounds, the GMFMC reduced the bag limit to 5 fish and increased the size limit to 15 inches and in subsequent years the GMFMC must either further reduce the bag limit, or impose closed seasons, which will be controversial for the recreational fishery. Other alternatives would be to extend the restoration period so TAC can be increased annually, which will be controversial for the conservation community.

There was some discussion regarding three Council members whose terms are up. Although they may be reappointed, it is thought that the Council will have at least two new members.

In regards to the impact of shrimp trawling on the red snapper industry, J. Collins and L. Kiffe stated that reef areas were avoided by shrimping efforts because they did not want to catch red snapper. They disagree with NMFS data, they feel that a very small percent of shrimp trawl bycatch is red snapper. They do not feel that shrimping efforts impact the red snapper fishery.

Magnuson Fishery Conservation and Management Act (MFCMA)

L. Simpson discussed his testimony on behalf of the Commission regarding reauthorization of the MFCMA. He will present this testimony to the Subcommittee on Ocean and Fisheries, Senate Committee on Commerce, Science and Transportation May 13, 1995 in Biloxi, MS. He reviewed the Commission's previous positions and past enforcement problems that occur when a fishery is harvested both within State waters and in the EEZ. He discussed federal court decisions that have raised questions regarding state landing laws and interstate management measures. He stressed the importance to clarify Section 306(a) to provide state authority in the absence of a Council FMP for fish harvested in the EEZ which are concentrated in state jurisdictional waters. In addition he recommended technical amendments to Section 303(d) to include interstate marine fisheries commissions along with the states as organizations that the Secretary may enter into agreements with for the purpose of sharing confidential data. His testimony also supports provisions in S.39 regarding habitat - specifically identifying essential fish habitat.

C. Perret suggested that L. Simpson strengthen the language in the testimony regarding the need to improve data - biological, social and economic. He also suggested that he reiterate enforcement needs. He would like to see States receive funds from cooperative enforcement efforts.

Discussion of Gill Net Actions in the Gulf States

C. Perret stated that Louisiana is currently addressing gill net legislation. He feels that legislation to ban any kind net in Louisiana will be controversial. His department is providing information regarding license and fees to assist

Legislators. The Louisiana Department of Wildlife and Fisheries does not have the authority to close a fishery or fishery season unless a specific problem exist. There are currently 11 bill being considered. One bill would designate spotted seatrout as a gamefish. He is not sure what the outcome will be. He would like to see nets regulated rather than forbidden.

P. Hammerschmidt reported that there is no controversy regarding gill nets in Texas because they were banned in 1988. Red drum and spotted seatrout were designated gamefish in 1981. He stated that Gene McCarthy was unable to attend this week because he was assisting legislators regarding two bills that are currently being considered. One bill provides for a limited entry program for the bay shrimp fishery. TPWD and industry have worked together for over a year to develop this program. P. Hammerschmidt feels very positive that this joint effort will be successful, although it may take several years to see the results. The other bill being considered would give the Executive Director of TPWD authority to sign off on compatible laws that pertain to fisheries in the EEZ. He also reported that two new members were appointed to the Texas Parks and Wildlife Department Commission. They are Nolan Ryan and Susan Howard.

W. Tatum reported that Gulf Coast Conservation Association and Alabama Wildlife Federation formed a "Ban the Net Coalition" about six months ago. They presented information to the Board of Governors (advisors to the ADNR) calling for drastic reductions in net use. The Board tabled the issue to allow enough time to talk with other groups concerned with net issues. They were able to reach a compromise between groups supporting the ban, groups not supporting a ban and the ADNR. The compromise involved a limited entry program that would restrict who could purchase a commercial license. Only persons who derive 50% of their income from a net fishery and who have purchased a license during 1989-1993 would be eligible. The Legislature will meet to discuss this type of compromise legislation. W. Tatum is confident that a limited entry program will be approved. This effort was a cooperative and positive one.

G. Sekul stated that groups meeting to discuss net ban in Mississippi have been extremely volatile. R. Lukens stated that a compromise was developed that would involve among other things: timed closures, gear restrictions, and, area closures. These measures will be in effect for one year at which time the Mississippi Department of Marine Resources will reevaluate the situation. He also stated that this issue was very controversial and personal attacks were made against biologist that provided information and other data.

E. Conklin stated that the State of Florida had banned the use of nets. Measures have been taken regarding loss of income for fishermen. A three part program is being addressed by the Legislature to address this problem. It would include direct economic compensation; retraining; and, buy back or purchase nets from fishermen. The federal government would pay for the retraining program. The State General Revenue would pay direct compensation benefits but no funds are available. A surcharge or license has been suggested as a means to raise funds. Other means of raising funds would be to borrow money. Nothing has yet been established to fund this type of program which could prove to be very expensive. Extraneous businesses impacted by the net ban are also experiencing a loss of income. This has not been addressed. Legislation may be implemented by July 1, 1995. Texas has provided information regarding other problems that Florida may be facing in light of net bans. These include abuse of net laws and the need for additional enforcement efforts. This will cause problems because funds are not available for additional enforcement.

ComFIN/RecFIN Status Report

This report was not presented because it was given during the S-FFMC meeting held prior to this meeting. No action was necessary.

Future Meetings

G. Herring reported that she was unable to get the Perdido Resort in Orange Beach, AL for the October 16-20, 1995 meeting. W. Tatum suggested she contact the new Hampton Inn in Gulf Shores. Tentative arrangements have been made with the Quality Inn in Gulf Shores, AL. (A contract was signed with Quality Inn subsequent to this meeting.)

The Commission directed G. Herring to hold the Spring 1996 meeting in the Brownsville, TX area. It has been 10 years since the Commission last met there.

Other Business

L. Simpson provided written reports on various programs of the GSMFC and of interest in the Gulf. He also distributed copies of joint testimony by the three Commissions regarding NMFS appropriations

Copies of "TEDs, A Handy Guide for Fishermen" and "1994 License and Fees" were passed out.

The meeting was adjourned at 10:45 a.m.

APPROVED BY:
B. Mahmoudi
COMMITTEE CHAIRMAN

MULLET TECHNICAL TASK FORCE
MINUTES
June 8-9, 1995
Gulf Shores, Alabama

Behzad Mahmoudi, Chairman, called the meeting to order at 1:10 p.m. The following were in attendance:

Members
Terry Bakker, MDWFP, Biloxi, MS
Mike Buchanan, MDMR, Biloxi, MS
Skip Lazauski, ADCNR/MRD, Gulf Shores, AL
Ray Lenaz, Biloxi, MS
Behzad Mahmoudi, FMRI, St. Petersburg, FL
Kyle Spiller, TPWD, Corpus Christi, TX

Others
David Rose, MDWFP, Biloxi, MS

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as presented.

Adoption of Minutes

The minutes of the meeting held December 8-9, 1994, in Pensacola, Florida, were adopted as presented.

Review of Draft Sections

The task force reviewed draft sections, made corrections as necessary, and identified areas in need of change or completion. Unfinished tasks include:

- All - send in the list of names for the acknowledgement section
- Rick - complete authorship list (2.4) as appropriate
- All - search for a good adult mullet line drawing
- Behzad - Tables 3.1 & 3.2
- Rick -page 3-10 add Kevin Peters cite
  page 3-11 add Florida data on Table 3.4
  page 3-15, 3.1.2.4 Gilmore cite (check paper at GCRL)
- Harry - page 3-14, check Jordan & Evermann
- Behzad - page 3-16, 3.1.4 Movement
- Rick - page 3-16, 3.2.1 add Gilmore 1977 and Rivas 1980 papers
- All - page 3-16, 3.2 add data to support relative habitat importance - expand

- Rick - update as changes come in
  - split out MDMR & MDWFP in Table 4.1
  - develop law table
- Rick - update section 5 with 1994 data if obtainable from all states
- All - review Section 5 and send any additional comments to Rick

The task force recessed at 5:30 p.m. and reconvened on Friday, June 9, 1995, at 8:10 a.m. with the following in attendance:

Members
Harry Blanchet, LDWF, Baton Rouge, LA
Mike Buchanan, MDMR, Biloxi, MS
Walter Keithly, LSU, Baton Rouge, LA
Skip Lazauski, ADCNR/MRD, Gulf Shores, AL
Ray Lenaz, Biloxi, MS
Behzad Mahmoudi, FMRI, St. Petersburg, FL
Kyle Spiller, TPWD, Corpus Christi, TX

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Review of Draft Sections (continued)

- Blanchet - send Rick the Ditty paper
- Rick - add a section in 5.0 on factors affecting landings and mention hurricanes (Juan in LA, Elena in MS, Frederick in AL, etc.)
- Rick - change 5.2 to Total U.S. Gulf and Mexico, add bar graph for Mexico
- Behzad - do figures 5.3 and 5.4, p. 5-7 and 5-8
- All - review associations, section 6.3, send Rick comments
- All - mark up Section 8 - send suggested changes to Rick
  - describe traditional fishermen, part-time fishermen, trans-gear fishermen
  - quantify with response rate of the survey - relative low response rate and timing of survey causes some concern with numbers in section
  - give a brief methodology of survey - sample size
- Walter/Rick - combine sections 6 & 7
- Rick - note in section 9 that Mexico data is for informational purposes only
- All - send Behzad comments on stock assessment including thoughts on conservation standard
- Behzad - finalize stock assessment, incorporate into section 9
- All - send Rick thoughts and comments of Sections 9.0, 10.0, 11.0, and 12.0

Development of Recommendations

Due to the length of time needed by the TTF to review and discuss the FMP, recommendations are being delayed until the next meeting.

Timetable for Completion

Staff will incorporate all changes made at this meeting and mail out a revised draft by mid-June. All comments noted above should be sent to Rick immediately for incorporation. A work session with Rick and Behzad will be held in late June to finalize the stock assessment and Section 9.3. The TTF tentatively scheduled a full task force meeting for Thursday and Friday, July 27-28, 1995, where the draft FMP will be finalized. The next session will include an intense session on the development of management recommendations. The Claude Peteet Mariculture Center was recommended as the meeting location, and Skip Lazauski will check on scheduling the conference room for TTF use.

There being no further business, the TTF adjourned at 4:30 p.m.

APPROVED BY:
COMMITTEE CHAIRMAN

SEAMAP-Gulf Subcommittee Meeting
MINUTES
August 6, 1995

Chairman Walter Tatum called the meeting to order at 2:10 p.m. The following members and others were present.

Members:
Walter Tatum, ADCNR, Gulf Shores, AL
Mark Leiby, FDEP, St. Petersburg, FL
Jim Hanifen, LDWF, Baton Rouge, LA
Terry Cody, TPWD, Rockport, TX
Richard Waller, GCRL, Ocean Springs, MS
Joanne Shultz, NMFS, Pascagoula, MS

Others:
Buck Sutter, NMFS, St. Petersburg, FL
Scott Nichols, NMFS, Pascagoula, MS

Staff:
Dave Donaldson, GSMFC, Ocean Springs, MS
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as submitted.

Approval of Minutes

The minutes from the March 14, 1995 SEAMAP-Gulf Subcommittee were approved as submitted.

Administrative Report

D. Donaldson reported that the Reef Fish Survey is continuing to date. The purpose of this survey is to assess the relative abundance and compute population estimates of reef fish. Vessels from NMFS, Texas, Mississippi, Alabama and Florida, and personnel from Louisiana participates in this survey.

The Summer Shrimp/Groundfish Survey was completed July 19, 1995. The purpose of the survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. A total of 323 stations were sampled by NMFS, Louisiana, Mississippi, and Alabama.

The Shrimp/Groundfish Data Summaries were conducted from June 13 to July 19, 1995. Approximately 280 interested persons received six weekly near-real-time catch data summaries which show pounds/hour and counts of brown, pink and white shrimp caught and finfish catches during the summer survey.

Work is continuing on the 1993 Atlas. D. Donaldson said they missed a window prior to the Summer Shrimp/Groundfish cruise but the atlas should be published later this year.

Copies of last year's Joint Annual Report will be distributed to the other coordinators at this meeting for their comments and it will be published later this year.

SEAMAP-Gulf will sponsor a general session at the Fall GSMFC Annual Meeting. The session is scheduled for Tuesday, October 17, 1995 from 1:00 p.m. to 5:00 p.m. The purpose of the session is to facilitate discussion concerning how fishery-independent data is used in the assessment and management of various species in the Gulf of Mexico. Presentations include:

* Overview of fishery-independent data use for management and red snapper assessment by Scott Nichols.
* How fishery-independent data is used for the assessment of blue fin tuna by Steve Turner.
* Determining the Texas Closure using fishery-independent data by Terry Cody.
* Uses of fishery-independent data for determination of Alabama's shrimp season by Mark Van Hoose.
* Ichthyoplankton data summaries from the SEAMAP summer shrimp/groundfish surveys by Joanne Shultz.
* The variety of uses of fishery-independent data for management of Louisiana's fisheries by Joseph Shepard.

The presenters were asked to provide a copy of their presentation on disk. A proceedings will be published on the general session. W. Tatum will give opening and closing remarks at the session and he asked that each subcommittee member attend the session if possible.

D. Donaldson also stated that the Commission has received RecFIN/ComFIN money for administrative purposes. This will free some SEAMAP money, making it possible to conduct work group meetings. He said that after the meeting he will send a letter to the Subcommittee and work group leaders asking if there is a need for any work group meetings. The deadline for the meetings will be December of this year.

Discussion of Strategic Plan Development

Other than a few minor changes, the group agreed that Robin Peuser did an excellent job on rewriting the Operations Plan. D. Donaldson said that each component was asked to develop a list of priority items they would like to do in the future. W. Tatum stated that each component needs to invision what fishery management problems will occur in the next five years. After discussion on each state's priority list, it was

decided that W. Tatum and D. Donaldson will consolidate the following suggestions from the five Gulf States and send to R. Peuser to be incorporated into the 5 year plan:

Texas - continuation of reef fish work; collection of data for stock assessment of important recreational and commercial species; and maintenance of SEAMAP data management system
Louisiana - reinstate the coastwide 1-to-5 fathom inshore summer and fall shrimp/groundfish surveys with minor modifications; implement a program to impacts of annual hypoxia on distribution of fishes; and reef fish assessment--replicate the NMFS 1995 survey nearer shore off Louisiana and at LDWF artificial reef sites
Mississippi- oil rig sampling, shark survey; and winter plankton survey
Alabama - intensifying sampling for all reef fish species; developing a sampling methodology for pompano; and winter sampling for mullet larvae
Florida - Mark Leiby will discuss this with Alan Huff and then he will inform D. Donaldson.

* The Subcommittee then discussed the 3-year red drum study that is scheduled to start this year. The study will be a repeat of the Nichols, et al. that was done in 1987. After discussion, R. Waller moved that in the event the second year funding for replication of the Nichols et al. study is not available, the Subcommittee will charge the Red Drum Work Group with developing an age structure study. The Subcommittee was informed by Dr. Nichols that there would be 250K available through NMFS for this study and if the Work Group feels that more money is necessary, the work group should be instructed to develop a plan to submit to MARFIN or some other funding source to supplement that 250K to conduct an offshore age structure study. J. Hanifen seconded. After discussion, the motion passed unanimously.

Update of Comparative Tow Survey

D. Donaldson informed the Subcommittee that the OREGON II and the TOMMY MUNRO are scheduled to do comparative tows October 3 - 7. They expect to have a report before the March meeting for the Subcommittee to review. Also, this is the final year for the three-year period.

Status of FY1996 Budget

S. Nichols informed the group that status quo, 15% and 50% reductions are all realistic possibilities for planning the budget. There was a discussion concerning submitting for under status quo because it is easier to amend for more money if it's available than having a proposal requesting more money than is available. After discussion, each state decided to plan for a 15% across the board cut and try to continue their current work. If the final figure is more than a 15% cut, the Subcommittee recommends that each component prioritize all ongoing activities and then determine which activity will be the least impacted--least impacted in terms of maintaining the continuity of a long term database. The breakdown is as follows:

ALABAMA	$ 68,000.00
FLORIDA	93,840.00
LOUISIANA	120,700.00
MISSISSIPPI	94,495.00
TEXAS	54,804.00
GSMFC	80,564.00
TOTAL	$512,403.00

Work Group Reports

A. Reef Fish Work Group

R. Waller informed the Subcommittee that the Reef Fish Work Group sponsored a workshop on sampling vertical habitats at the Lyles St. Amant Marine Laboratory in Grand Terre, LA. A number of speakers gave presentations and answered questions on work they had done. Each speaker was asked to submit a hard copy and a disk of their presentation for a proceedings to be published on the workshop. A list of the speakers and their topics are attached (ATTACHMENT I). After the presentations, the Work Group met to discuss development of a sampling methodology of vertical habitats in the Gulf of Mexico. The Work Group recommends that the SEAMAP Subcommittee accept the following recommendations and further ask that they be used by the NMFS during its pilot study for the development of a sampling methodology in the Gulf of Mexico. The following recommendations were generated:

Separate the study into three zones--coastal zone, which is out to 22 meters in depth; offshore zone, which is 23 to 80 meters in depth; and a blue water zone from 80 meters. The NMFS should conduct a pilot hydro-acoustic video study incorporating these sampling methods:

* mobile shipboard acoustic passes on all sides of rig;
* mobile ROV acoustic passes;
* ROV visual at set depth strata;
* four-camera array for static visuals at set depth strata;
* standard water parameters as well as current speed and direction, transmissivity, and PAR;
* plankton sampling including standard sampling and possible "light trap" samples;
* laser measurements of target species;
* collect hard parts for aging studies; and
* examine historical data bases for baseline information.

* After a brief discussion on the recommendations, J. Hanifen moved to accept the recommendations, Terry Cody seconded and the motion passed unanimously. It was

also decided to send the recommendations via letter to Scott Nichols and Brad Brown at NMFS.

Data Coordinating

K. Savastano distributed and reviewed the Data Management report (Attachment II). He said they just implemented the system on the SGI and the new version has Internet capability. He asked that everyone send in their disclosure forms. He also suggested having a one day work shop on using the Internet. The 1994 data processing is complete and they have started processing the 1995 data. The summer SEAMAP real-time data was completed. There has been 162 SEAMAP requests and 158 requests have been completed.

Preparation of Cooperative Agreements

D. Donaldson distributed last year's Operation Plan and NMFS's portion of the Cooperative Agreement and informed the group of the few changes that were made. He then asked that everyone review the documents and send in any changes to him. He will then revise and send final copies to everyone.

There being no further business, the meeting was adjourned at 5:15 p.m.

APPROVED BY:
COMMITTEE CHAIRMAN

SEAMAP - GULF, SOUTH ATLANTIC
AND CARIBBEAN SUBCOMMITTEES
JOINT MINUTES
St. Croix, VI
August 6-7, 1995

Sunday, August 6, 1995

SEAMAP-Gulf Chairman Walter Tatum called the meeting to order at 1:15 p.m.

Introductions and Overview of Strategic Plan Development

* Robin Peuser gave an update/overview of the Operations/Strategic Plan Development. Mike Street moved that the three component's management bodies prepare a summary of the SEAMAP Program suitable for answering questions that interested parties may have. J. Hanifen seconded and it passed unanimously. D. Donaldson will help R. Peuser prepare the summary. The group agreed the summary should highlight the benefits and emphasize accomplishments to management and industry and show that SEAMAP data is being used for management decisions. It should also emphasize that the states and other agencies contribute personnel and funding to the program. The group then adjourned to meet in separate components.

August 7, 1995

Chairman Walter Tatum called the meeting to order at 9:16 a.m. The following members and others were present:

David Donaldson, GSMFC, Ocean Springs, MS
Richard Waller, GCRL, Ocean Springs, MS
Richard Appledoorn, UPR Sea Grant College Program
Walter Padilla, PRDNER, Mayaguez, PR
Aida Rosario, PRDNER, Mayaguez, PR
Joanne Shultz, NMFS, Pascagoula, MS
James Hanifen, LDWF, Baton Rouge, LA
Terry Cody, TPWD, Rockport, TX
Mark Leiby, FDEP, St. Petersburg, FL
Scott Nichols, NMFS, Pascagoula, MS
Nancy Thompson, NMFS, Miami, FL
Frederick "Buck" Sutter, NMFS, St. Petersburg, FL
Ken Savastano, NMFS, SSC, MS
Robin Peuser, ASMFC, Washington, DC
Nancy Thompson, NMFS, Miami, FL
Martha C. Puada, San Andis Isla
Graciela Garcia-Moliner, CFMC, Hato Rey, PR
Ana M. Roman, USFWS

Carlos A. Ramos, CFMC, Hato Rey, PR
Toby Tobias, DFW, St. Thomas, USVI
Steve Meyers, DFW, St. Thomas, USVI
Walter Tatum, ADNCR, Gulf Shores, AL
Alan Huff, FDEP, St. Petersburg, FL
David Whitaker, SCDNR, Charleston, SC
Mike Street, NCDMF, Morehead City, NC
Roger Pugliese, SAFMC, Charleston SC
Lisa Kline, ASMFC, Washington, DC
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

A. Rosario said she will not give a slide presentation on the queen conch survey. With this change, the agenda was approved.

Approval of Minutes

* J. Hanifen moved to accept the minutes from the joint SEAMAP meeting held on August 10, 1994 in Atlanta, Georgia. J. Shultz seconded and it passed unanimously.

Overview of SEAMAP-Caribbean

Steve Meyers said that the Caribbean component is investigating the queen conch and its population distribution. He said that the conch is a very important fishery resource for Puerto Rico and the USVI. It has also become a very politically sensitive issue in the Virgin Islands with respect to management plans that the DWF implemented last year. He said that SEAMAP provides the only funding for this study and emphasized how important SEAMAP funding is to this study.

Aida Rosario gave an overview on the queen conch survey. She said SEAMAP is using the same methodology and stations that were used in two previous surveys conducted in 1987 and 1991. A major problem that Puerto Rico has is that only a few minor surveys southwest of the island have been conducted and more information on the resource is needed in that area. To have a better idea of which areas need to be sampled, a survey was conducted to collect information from the queen conch fishermen asking questions such as what areas are presently being fished for queen conch; what areas have been fished in the past; information on juvenile habitats; what are the harvesting methods; the number of tanks per trip; boat size; and how many fishermen per trip. Based on this information, it was decided to include not only stations from previous surveys but also stations in areas that are now being fished and to also include the St. Croix area. In Puerto Rico, it was found that the main area for queen conch fishing is along the west coast which is a big area to sample with very limited resources. She said there is a need to sample on

the east coast of Puerto Rico but due to logistics they are still trying to determine where and how many stations to sample. SEAMAP is in the process of starting the sampling and it will be a joint venture between the University of Puerto Rico and the University of Virgin Islands. It is hoped the field work will begin in September 1995.

S. Meyers said the Virgin Islands now have a 9" length limit and/or a 3/8" shell thickness for queen conch. In the past the regulations called for a 9" length limit but no limit on shell thickness so they are experiencing problems with enforcement. He said it has been a struggle to educate the fishermen on the new regulations and to try to convince the legislatures that this needs to be enforced. T. Tobias said that in 1994 the landings were about 35,000 pounds meat weight and the 1994-95 landings were down to about 24,000 pounds. The USVI has been measuring queen conch from five landing sites and found that the conch, based on shell length, has been undersized between 60-90% so again, enforcement is a very critical issue.

A. Rosario said the Caribbean Fishery Management Council is in the process of establishing a FMP for queen conch and many of the regulations in the federal plan parallel the regulations they have in the USVI. Most of the fishery is in state waters for Puerto Rico and the USVI. S. Meyers stressed again that SEAMAP is the only source of funding they have to obtain this valuable information on queen conch to supply to management.

Overview of SEAMAP - Gulf

W. Tatum reported that the Reef Fish Survey is continuing to date. This is the third year of the survey so it is no longer considered a pilot study. Vessels from NMFS, Texas, Mississippi, Alabama and Florida, and personnel from Louisiana participates in the survey.

The Summer Shrimp/Groundfish Survey was completed July 19, 1995. The purpose of the survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. This survey also assists in determining the opening of the shrimp season off the state of Texas.

The Fall Shrimp/Groundfish survey was conducted. He stated the Gulf component also had a fall shrimp/groundfish cruise and the data coming from it provides the indices on juvenile red snapper.

The real time data summaries for the summer shrimp/groundfish surveys, the 1995 Marine Directory, the 1992 SEAMAP Atlas and the 1994 Joint Annual Report were distributed this past year.

The Reef Fish Work Group sponsored a workshop concerning sampling artificial, vertically-distributed habitat (oil and gas structures) in the Gulf of Mexico at the Louisiana Department of Wildlife and Fisheries' Lyle S. St. Amant Marine Laboratory on Grand Terre

Island. Invited speakers gave presentations and answered questions on work they had done and a proceedings will be published on the workshop. The SEAMAP-Gulf component accepted a list of recommendations to be submitted to NMFS to use during its pilot study for the development of a sampling methodology in the Gulf of Mexico. S. Meyers asked that if the Gulf sponsors another work shop on this, to expand participation to include the Caribbean and South Atlantic because everyone could benefit from this. He also asked that all members present receive a copy of the proceedings.

W. Tatum informed everyone that the SEAMAP-Gulf will sponsor a general session at the Fall GSMFC Annual Meeting on Tuesday, October 17, 1995 from 1:00 p.m. to 5:00 p.m. and invited everyone to attend. The purpose of the session is to facilitate discussion concerning how fishery-independent data is used in the assessment and management of various species in the Gulf of Mexico. A proceedings will be published and distributed to all SEAMAP personnel.

Presentation of SEAMAP Plankton Data Summaries

J. Shultz gave a slide presentation on the Plankton Data Summaries. She submitted a summary of her presentation to be included in the minutes (Attachment I). She said she hopes that in this time of budget cuts and limited resources that they will be able to maintain their level of collections and protect their time series because this is valuable information that is being provided to fishery biologists, managers, etc.

Overview of SEAMAP South Atlantic

Alan Huff reported that during the last funding cycle three reports were published: the 1994 Annual Report; the Results of Trawling Efforts in the Coastal Habitat of the South Atlantic Bight, and the Distribution of Bottom Habitats on the Continental Shelf.

The benthic characterization study, which is conducted mostly off Florida involves identification and occurrence of benthic species fished and invertebrates caught in SEAMAP trawls. They are in the process of identifying everything that was in the trawls. They are also in the process of elevating that data into a GIS environment and they are ending the identification of the specimens this year.

The bottom mapping project for the South Atlantic is conducted from North Carolina to Florida and they are just now bringing in this data. The project involves mapping the hard grounds or lack of hard grounds from various data sources--video, sonar, trawls, etc. There are criteria that is used to establish the presence or absence of hard bottoms and then they map that occurrence and by looking at that data they'll have a general overview of benthic habitats as represented by hardbottom or lack of hardbottoms in the South Atlantic Bight.

David Whitaker reported the Shallow Water Trawl Survey is the primary activity in the South Atlantic component and it is conducted by the SCDNR. They trawl aboard a large shrimp trawler from Cape Hatteras to Cape Canaveral during Spring, Summer and Fall. The primary objectives of the survey include size and abundance, distribution and seasonality of target finfishes and decapod crustaceans; record species composition and biomass; obtain sex, size, and gonad condition on shrimp; and to provide biological specimens and data for cooperating agencies and investigators. The same sampling technique and protocol has been used since 1989. He said that recently they have been getting more use of these data. As they are getting a longer database, the data are starting to be used for trend analysis and he projects that in the future it will become even more important to fishery managers. Recently, the weakfish data has been used as part of the ASMFC work in terms of looking at age and maturity; sciaenids are being collected for DNA work; and age and growth on various other sciaenids are being investigated on samples taken by SEAMAP. Last year, SEAMAP data were used in the mackerel stock assessment for the South Atlantic Council. Sciaenid data in general has been examined for distribution and relative abundance of the various species along the Atlantic coast. They have began taking more detailed data on small coastal sharks, specifically looking at sex on the smaller sharks of the trawl catch.

Mike Street reported there are two surveys in North Carolina that are considered SEAMAP surveys but neither receives funding from SEAMAP, they are actually state surveys. The Pamlico Sound survey has been conducted since 1986 and they sample approximately 52 stations in June and September. It is a stratified random survey using a pair of 30 ft. High Rise Falcon Nets. The survey is designed to provide a long-term fishery-independent database on the distribution, relative abundance, and size composition of target species of estuarine fish and decapod crustaceans in Pamlico Sound. The data are being used in the weakfish assessment for the ASMFC and state programs. The data is available through the Division of Marine Fisheries.

M. Street also reported that since 1988 they have been conducting a survey tagging striped bass off the northern coast of North Carolina during midwinter. They tag north from Cape Hatteras to Chesapeake Bay. Since 1988 to date over 12,500 striped bass have been tagged. Returns have come from North Carolina to Maine, in the ocean, on the spawning grounds, etc. Cruise participants are the Divisions of Marine Fisheries in North Carolina, New York and Maryland, NMFS, and USFWS. He said the best platform for this is the OREGON II but they have used the CHAPMAN and ALBATROSS IV. They tag from mid-January through mid-February and aim for 10 days but normally only get 5 days of sea time due to mechanical problems, weather, etc. An important factor about this survey is now that the emergency striped bass program has been terminated by Congress, which funded the same survey off Long Island, this is the only coastal survey left for striped bass so it does provide some rough estimate on how the stock is doing. He said they hope to continue these cruises, preferably on the OREGON II.

R. Pugliese reported the NMFS requested the SEAMAP Committee to coordinate the development of bycatch characterization information for shrimp fisheries in the South Atlantic region. In response, the committee determined that the best approach would be to designate a work group to work with the NMFS researchers to compile a final product which would be available information identifying finfish bycatch species in the shrimp fishery. The work group has almost completed its efforts and they're finalizing the document. They met three times with the intent to determine what data sets were available, to look at the estimation procedures, and to guide the development of the bycatch estimates that were conducted mainly by Dr. Douglas Vauhn out of the Beaufort Lab. They compiled available information on effort from the detailed shrimp data sets in addition to the port trip ticket system and Jim Nance supplied the information on bycatch characterization. A compilation of information came out of this cooperative bycatch research program conducted through the NMFS, Gulf and South Atlantic Fisheries Development Foundation, Florida Department of Environmental Protection, North Carolina and Georgia Sea Grant Programs, and North Carolina State University. He said this information is going to be critical to management at the federal, state and interjurisdictional levels in the South Atlantic region especially with the implementation of an amendment to the Shrimp Plan to specifically address weakfish bycatch. A final report is being compiled with bycatch estimates to specific areas and to specific fisheries.

R. Pugliese reiterated that the SEAMAP trawl information was utilized in the stock assessments for Spanish mackerel and it will also be incorporated in subsequent years in the mackerel assessments. He said they have just completed Amendment I to the Rock Shrimp Plan and that entailed reducing or eliminating the impact of that fishery on live hard bottom and more specifically outlining coral areas. The information from the Bottom Mapping Project and Benthic Characterization was used to facilitate completing the Amendment. He said a lot of the SEAMAP data in the South Atlantic is essential to management at the federal level and is supporting efforts under a number of other plans.

A. Huff said the other major program conducted by the South Atlantic was the development of the new Operations Plan and that will be discussed later in the meeting.

Development of SEAMAP Management Plan: 1995-2000

R. Peuser distributed a draft of the plan and asked that all editorial comments be given to her after the meeting. She said the ASMFC is obligated to spend the money for publications by the end of December and the next step before that is the approval from each component's management body. The components reviewed the document extensively and R. Peuser said she will have a draft for the Strategic Planning Meeting (September 12) for the final editing.

There was some discussion concerning involving other agencies in the Southeast Region in the SEAMAP. From this discussion, S. Meyers suggested the three chairmen

further explore the idea of trying to come up with a process for developing some lines of communication with other agencies to develop additional support. This issue will be discussed at the Strategic Planning Meeting on September 12.

Status of FY1996 Funds

S. Nichols suggested that each component take a 15% cut across the board when preparing their grant applications. After discussion, all of the components and NMFS agreed that each component taking a 15% cut is the best solution at this point and all of the components will operate as close to status quo as possible with that cut. The final breakdown is as follows:

Caribbean	$ 113,700
Gulf	512,403
South Atlantic	285,387
NMFS	220,510
TOTAL	$1,132,000

Joint Discussion of Grants Administration

B. Sutter reported that in reference to a memo concerning semi-annual reports from M. Nelson, the NOAA grants Administrator, NOAA is trying to make the reporting process easier, but in doing so it is very complicated. He said that starting this coming year only two semi-annual reports will be required. They will request everyone to do one eight month semi-annual report (February 1 - September 30) and the second will be a four month semi-annual report (October 1 - January 31). The commissions will do similar reports (their start up dates are different) but either way there will be one long report and one short report due.

He said this is the last year of a three year cycle and S. Long and D. Pritchard are trying to get the reporting methods simplified before they both retire. He said there has been a change in OMB Cir 887 which is the cost principle for states and local governments and Indian tribes and he suggested that fiscal officers request a copy of it. There are some major changes taking place and it should be much easier on the states. There also has been changes and updates on Cir 88102 which is the grants and agreements of states and local governments, and also suggested fiscal officers obtain a copy of it too. He said the OMB office can provide a copies of these documents. He then distributed a copy of a presentation he gave at a NOAA grants workshop in Tampa demonstrating what constitutes a good application and a bad application. He then informed everyone that Sally Long is retiring this month if they wish to send a card or note, etc.

Planning for 1996 Joint Annual Meeting

* W. Tatum invited the components to Gulf Shores, Alabama for the next joint annual meeting. S. Meyers moved to have the next Joint Annual Meeting of SEAMAP in Gulf Shores, Alabama. The motion was seconded and passed unanimously. There was a brief discussion to delay the meeting to September but since they would not have the budget figures until November, they agreed to hold the meeting August 4-6, 1996.

Other Business

* M. Street moved that if the cut in the budget is not as substantially as discussed (15% cut) that the chairs and coordinators meet with the program manager to discuss the breakdown for the components. The motion was seconded and passed unanimously.

There being no further business, the meeting adjourned at 5:15 a.m.

ATTACHMENT I

Since SEAMAP's inception in 1982 the goal of plankton activities in the Gulf of Mexico has been to collect data on the early life stages of fishes and invertebrates that will complement and enhance the fishery-independent data gathered during surveys of the adult life-stage. Plankton surveys are a very cost effective way to gather abundance and distribution data on a wide diversity of marine organisms. A single and relatively simple gear type, the plankton net, can be used to catch the young of reef fishes, bottomfishes, macroinvertebrates, and coastal migratory pelagic fishes. Plankton surveys have been used in the detection and appraisal of fishery resources; in the determination of spawning seasons and areas; in investigations of early survival and recruitment mechanisms; and in estimation of the abundance of a stock based on its spawning production.

SEAMAP provides platforms and equipment for collections from both "piggybacked' and dedicated plankton cruises. SEAMAP funds are used for sample sorting and identification at the Sea Fisheries Institute, Plankton Sorting and Identification Center, in Szczecin, Poland, through a Joint Cooperative Studies Agreement that has been in place with NMFS since 1974. The Louisiana Dept. of Wildlife and Fisheries has, since 1987, sorted and identified it's own SEAMAP plankton collections. SEAMAP also operates two archives where specimen identification data are entered and updated; and where specimens are curated and loaned to interested scientists. Over 100,000 lots of identified fish larvae are housed at the SEAMAP Archiving Center (SAC) at Florida's Marine Science Institute, St. Petersburg, FL. Unsorted samples are stored and the planktonic stages of Gulf macroinvertebrates are sorted, identified, and archived in the SEAMAP Invertebrate Plankton Archiving Center (SIPAC) at the Gulf Coast Research Laboratory in Ocean Springs, MS. SIPAC's holdings include over 3,000 unprocessed samples and over 5,000 lots of sorted and identified specimens. Data entry and management software and support for SEAMAP are provided by the Southeast Fisheries Science Center, Mississippi Laboratories, Data Management Group.

The original goal of SEAMAP was to collect plankton samples from open, shelf and coastal waters of the Gulf during each season. This goal has been met only partially in that each season has been surveyed but not each of the three major habitats (Table 1).

SEAMAP larval specimens and data have been used by numerous state, federal, and university scientists to: define spawning times, locations, and habitats; investigate early ecology, and larval growth and mortality relationships; describe the ontogeny of Gulf fishes and invertebrates; and provide additional information on trends in adult population levels for selected species. The scientists who have utilized SEAMAP plankton data include: Dr. Richard Shaw and Jim Ditty of Louisiana State University; Dr. Bill Richards and Dr. Steve Turner of the NMFS, Miami Laboratory; Bruce Comyns and Harriet Perry of the Gulf Coast Research Laboratory (GCRL); and Dr. Churchill Grimes and associates at the NMFS, Panama City Laboratory.

Table 1: Seasonal and areal coverage of SEAMAP plankton collections in the Gulf of Mexico. (*=dedicated plankton survey)

SEASON	MONTH/YEAR	HABITAT/AREA
Winter	*December 1983	open & northcentral Gulf
	*December 1984	open & northcentral Gulf
	December/November 1985 to present	coastal Louisiana
	January/February 1993	open Gulf
Spring	*April/May/June 1982 to present	open Gulf & south Florida shelf edge
	*May/June 1982	shelf & coastal southern Gulf (Mexico)
	March/April(May) 1986 to present	coastal Louisiana
	May/June 1986	shelf edge south Texas to north Florida
Summer	June/July 1982 to 1985	shelf & coastal south Texas to north Florida
	June/July 1986 to present	shelf & coastal south Texas to Alabama
	June/July 1982 to present	coastal Louisiana
	*August 1984	shelf & coastal Gulfwide
	July/August 1985	shelf edge south Texas to Florida
	(May)June/July 1992 to present	natural hardbottom Gulfwide
Fall	*(August)September/October 1986 to present	shelf & coastal Gulfwide
	September/October 1985 to present	coastal Louisiana
	October/November 1982 to 1985	shelf & coastal Texas to north Florida
	October/November 1985 to present	shelf & coastal Texas to Alabama
	October/November 1983 to present	coastal Louisiana

Table 3: Dominant taxa taken in 821 bongo net collections during SEAMAP Fall Plankton surveys, 1986-1992.

TAXON	% ABUNDANCE	% OCCURRENCE
Gobiidae	17.4	87.5
Bregmaceros spp.	11.1	53.0
Chloroscombrus chrysurus	9.5	46.9
Symphurus spp.	6.1	67.2
Engraulidae	5.0	54.7
Syacium spp.	4.7	59.0
Synodontidae	3.3	59.4
Sardinella aurita	3.1	18.9
Opistonema oglinum	2.6	25.2
Myctophidae	2.4	27.6
Ophidiidae	2.2	62.2
Unidentified Larvae	2.0	59.2

Wat. M. Lfw
5-7-96

TCC ARTIFICIAL REEF SUBCOMMITTEE
MINUTES
Thursday, August 31, 1995
Tampa, Florida

Vice-Chairman Rick Kasprzak called the meeting to order at 9:00 am. The following members and others were present:

MEMBERS
Jan Culbertson, TPWD, Rockport, Texas
Jon Dodrill, FDEP, Tallahassee, Florida
Mike Buchanan, MDMR, Biloxi, Mississippi
Mel Bell, SCDNR, Charleston, South Carolina
Rick Kasprzak, LDWF, Baton Rouge, Louisiana

STAFF
Ron Lukens, Assistant Director

OTHERS
Kurtis Gregg, NCDMF
Mike Meier, VMRC
Steve Heins, NYDEC
Clark Evans, GDNR
Robert Turpin, UFW
Bill Horn, FDEP
Bill Seaman, UFSG
Dick Stone, NMFS HQ
Les Dautrive, MMS
Bob Martore, SCDNR

Adoption of Agenda

With changes, the agenda was adopted without objection.

Approval of Minutes

The minutes of the July 1994 meeting of the TCC Artificial Reef Subcommittee were approved without objection.

Discussion of the National Artificial Reef Plan

Lukens reminded the Subcommittee that the original date for the regular meeting was August 1 and 2; however that meeting was cancelled due to Hurricane Erin. He also pointed out that that meeting was scheduled to be a joint session with the Atlantic States Marine Fisheries Commission (ASMFC) Artificial Reef Advisory Committee, and that their committee held their meeting. Lukens and Kasprzak attended the ASMFC meeting. Lukens then informed the Subcommittee that a discussion regarding the National Artificial Reef Plan (National Plan) was held during that ASMFC meeting. The primary focus of the discussion was an initiative to review the National Plan and determine, after ten years in existence, if it needs to be revised and updated. Lukens pointed out that the intention of the writers of the National Plan was that it would be periodically updated as new information became available. J. Dodrill stated that he feels very strongly that the National Plan should be updated, indicating that most land management and other management plans are updated in five year intervals. Lukens pointed out that at the time of the completion of the National Plan there were virtually no state artificial reef management plans in place. One of the purposes of the National Plan is to encourage state plan development. The subsequent adoption of a significant number of state plans may have significant bearing on the current substance of the National Plan. He continued that the National Plan should be a document that provides the states with information and guidance that supports their efforts. The National Plan, then, should be reviewed in terms of the degree that it achieves that goal. There was general agreement that some effort to address the National Plan should take place during 1996. The primary issue is to determine the type of forum that should be used to accomplish the review of the National Plan and to record recommendations for redrafting. Lukens pointed out that the National Plan is required under the National Fishing Enhancement Act of 1984, which delegates the responsibility for developing the National Plan to the National Marine Fisheries Service (NMFS). This means that there must be full agreement and cooperation of the NMFS in the review and redrafting of the National Plan. Kasprzak pointed out that the state artificial reef managers now have many years of experience using certain materials, and that experience should

be a factor in redrafting the National Plan as it relates to materials. Other experiences of the state program managers will also provide a solid basis for reviewing the National Plan and suggesting changes. Lukens emphasized that for the effort to be a truly national effort, representatives from the Pacific States should be involved.

J. Culbertson asked what level of approval is required to establish a revision of the National Plan, eg. Congressional approval, public hearings, etc. Lukens indicated that it is his impression that the National Plan is a policy document, and was established under the category of Technical Memorandum. There was general agreement that revision of the National Plan would not require any legal or Congressional action, but would be limited to approval of the NMFS as an official document. Lukens agreed to contact NOAA General Counsel regarding the requirements for revising the National Plan. Dodrill asked what weight the National Plan carries as a policy document. Lukens responded that it does not carry the force of law, does not require anyone to do anything, and carries as much weight as any individual agency, state or federal, gives it. S. Heins, from New York, suggested that it goes beyond just how the states or federal agencies feel about the document. He indicated that any revisions made to the National Plan could require regulatory changes within the U.S. Coast Guard and the U.S. Army Corps of Engineers (COE), and perhaps others. Heins suggested that through revising the National Plan, an emphasis could be placed on consistency in the permitting process among COE districts.

B. Seaman, Florida Sea Grant Program, indicated that in his view the National Plan is more of a guide book on how to put together an artificial reef program. He pointed out that the NMFS does not have an artificial reef program, nor does the agency have any one individual charged with artificial reef issues. He encouraged that, based upon the current lack of emphasis on artificial reefs by the NMFS, the plan should go beyond federal interests and should focus on the needs of the various state programs. Seaman also pointed out that Dick Stone, NMFS HQ, was the original coordinator of the National Plan initiative, and he will be retiring from the NMFS in the very near future. He suggested that there may be a possibility to involve Stone at some level in the review and revision of the National Plan.

Lukens suggested that the National Plan review initiative will be a work activity, and as such participation should be as limited as possible, assuring that all necessary parties are involved. He further suggested that there should be much preliminary work done on the National Plan, through a small working group, prior to holding the formal review and revision. The working group product will serve as a working document for the larger group to use. Bell suggested that the National Plan could be divided into sections and have specific working groups address assigned sections. Work must take place prior to that to determine what sections should be in the plan. In that regard, it would be a two phased effort. Meier indicated that one of the most time consuming parts of the initiative to develop the original National Plan was waiting for reviewer comments to be mailed back, stating that the outside review process took longer that the actual plan development. D. Stone, NMFS HQ, indicated that the original effort to put the National Plan together consisted of sequestering a rather large group of invited professionals for three days, during which the sections of the plan were generated. Some work continued after the three days; however, the bulk of the plan was developed during that three day session. He confirmed that it was originally intended that the plan be revisited and revised periodically as needed. It was agreed that as an initial effort, a group of five or six individuals should meet, review the National Plan, determine the sections that should be considered in the revision, and finalize the second phase of the effort, including meeting format, number of people, individuals or agencies to participate, and an outline from which to work. It was suggested that a letter be drafted to Rolland Schmitten, NOAA Assistant Administrator for Fisheries, and copied to Stone indicating the broad interest in reviewing and revising the National Plan during 1996. Stone indicated that he will work through the NMFS to see that the agency is involved in the process. Bell emphasized that the general movement toward viewing artificial reefs as fishery management tools is added impetus for the NMFS to become involved, in light of the agency's responsibilities under the Magnuson Act and the fact that a large number of artificial reefs are located in the federal Exclusive Economic Zone.

Discussion of American Fisheries Society Symposium on Artificial Reefs

The Subcommittee thanked Bill Seaman for coordinating the symposium which took place on Wednesday, August 30, 1995, as a part of the American Fisheries Society's annual conference. Kasprzak indicated that the two most important things that he got out of the symposium was 1) the general agreement that "production versus aggregation" is not the appropriate issue to address. It is not a black and white, either/or type issue, but rather something that needs to be considered on a case by case basis, and perhaps even a species by species basis, and 2) the need to hold more frequent meetings during which artificial reef researchers and artificial reef managers are able to interact regarding the types of research currently ongoing and the research needs of the state artificial reef programs. He reiterated the need for more real-time information from the research community, which is not possible if the four year international conference is the only venue for bringing the two groups together.

Bell pointed out that there seemed to be a pre-conceived notion that communication between researchers and managers was non-existent; however, the symposium revealed that perhaps that notion is false. He indicated that the research papers presented during the symposium were pertinent to the needs of state artificial reef programs, and he was pleased by the seeming collegial relationship between the researchers that attended the symposium and the state artificial reef managers. Bell agreed with Kasprzak that more frequent opportunities need to be provided for researchers and managers to meet together. Bell suggested that, since the Gulf and Atlantic States Marine Fisheries Commission's respective artificial reef committees have agreed to hold joint meetings at least once a year, a researcher(s) could be invited to those joint meetings and provide a presentation of ongoing research activities and results. Then, every other year or some other schedule, a larger meeting, perhaps like the symposium, could be scheduled, either through the AFS annual meeting or organized by the Commissions.

Lukens suggested that the small size of the symposium compared to the previous international conferences helped to foster a more congenial and cooperative atmosphere between the researchers and managers. He added that the researchers that participated are particularly

good at what they do and seem to be sensitive to the needs and concerns of the management community. Bell added that the short, more focused format of and the associated information presented at the symposium represented a more productive expenditure of his time at a meeting, compared to the international conferences, during which there are so many presentations and related activities, that the truly applicable information gained is limited. This is particularly important in light of the fact that the 1995 international conference is being held in Japan, and very few U.S. artificial reef managers or researchers will be attending. Bell stated that even though he was very pleased at the rapport between the researchers and managers exhibited during the symposium, he still feels that researchers and academicians still don't have a full appreciation of what the artificial reef program managers do on a day to day basis, which is probably understandable. Bell provided an example saying that he thinks that academicians/researchers may not have a good handle on the dichotomy of wanting to use artificial reefs as fishery management tools and the fact that we, in the United States, do not manage fish such that artificial reefs can be applied as a tool. He pointed out that through size and bag limits and quotas, it does not matter where a fish was caught, it only matters how many of what size were caught. Lukens pointed agreed with Bell, but pointed out that by making fish easier to catch, through establishing know locations where fish can be caught, we may be exacerbating management. He pointed to the red snapper fishery in the Gulf of Mexico, saying that perhaps the most difficult aspect of red snapper management is controlling the recreational sector. When fishing begins to improve through applied regulations, people who fish go fishing more often and more people go fishing who might do something else. These people adhere to the regulations, but because fish frequency and overall magnitude increases, the recreational allocation of red snapper has been exceeded twofold over the past two to three years, according to the best data we have. Lukens thinks that through more research and data collection on natural and artificial reefs, better ways to manage reef obligate fisheries may be found. There ensued a lengthy discussion regarding management of reef fish species and artificial reefs.

B. Seaman suggested that having the International Conference in Japan may have been a benefit, because it paved the way for planning and implementing the symposium through the AFS.

He also suggested that it may be a good idea to continue to hold the symposium in conjunction with the AFS annual conference. Seaman concurred with Bell, saying that the symposium should continue to be very focused, with invited speakers, offering that the next symposium topic could be the use of artificial reefs as management tools.

Issues Related to the Use of Vessels as Artificial Reef Material

J. Culbertson informed the Subcommittee that the State of Texas got 12 Liberty ships in the late 1970s, and has sunk barges and other vessels from time to time. However, the Texas Artificial Reef Program has not used vessels of any kind in several years as artificial reef material. She asked whether the Corps of Engineers (COE) permits normally have requirements for the Environmental Protection Agency (EPA) to oversee/sanction or provide guidance for materials through inspection and written approval. She indicated that the U.S. Coast Guard (USCG) Brownsville District Office was unwilling to sign off as having inspected and certified a vessel, either on their own behalf or for the EPA. They told Culbertson that the Texas Parks and Wildlife Department would have to be responsible for having the vessel cleaned and asserting through its own system that the vessel could be sunk, especially since it was to be sunk in state waters. She indicated that they would sign the report saying that they inspected the vessel, but they would not certify it. She indicated that Texas will be sinking a vessel in the near future, and she is concerned about the issue of responsibility for inspecting and certifying a vessel as approved to be sunk as an artificial reef.

Dodrill asked if she is seeking guidance from the USCG regarding inspection and sign-off on a vessel to be sunk as an artificial reefs. Culbertson replied affirmative. There was some discussion and confusion about whether any permits designate the EPA or the USCG to inspect and certify vessels for sinking. It was finally concluded that it does not matter if the inspection or certification of vessels is included in the permit. The permittee is always responsible/liable for anything that happens as a result of placing an artificial reef. As long as a program gets someone to inspect materials (the vessel) and provide guidance on how to comply with applicable laws, the

program has exercised due diligence, whether the EPA or USCG certifies the material or not. This does not absolve the permittee from liability, but it should minimize legal exposure. There was some discussion regarding load-line requirements; however, it was generally agreed that load-line requirements were not typically applicable to vessels to be sunk. M. Meier, Virginia, suggested that Culbertson rely on the COE as the ultimate authority to provide her with guidance on how/who to get vessels inspected in order to comply with applicable laws and regulations. Finally, it was agreed that it is not required that a federal agency (EPA, USCG, COE) sign a form stating that a vessel is certified as clean and free of all environmental hazards for use as artificial reef material. There was a discussion regarding buoying requirements off Texas. The discussion revealed that buoying requirements vary significantly among USCG districts; however, the group agreed that it would be counterproductive to try to get buoying requirements standardized across USCG districts. Culbertson indicated that her program is trying to get a waiver to discontinue the requirement for a light on the buoy at the Freeport Liberty ship artificial reef.

Alabama Off-Site Issue

Lukens indicated that the Gulf States Marine Fisheries Commission (GSMFC) was asked by Bon Secour Fisheries in coastal Alabama to address an issue in which a shrimper had hung his shrimp net on a boat that was sunk as an artificial reef in offshore Alabama. The boat was scheduled to be sunk in one of the large general permit areas; however, it did not sink in the permitted area. The shrimper indicated that the boat still had the sticker on it which indicates that it had been inspected and approved for deployment in one of the general permit areas. The information from Bon Secour Fisheries indicated that this was not the only such incident, but several cases of materials being located outside the permitted areas have been reported.

Chris Nelson of Bon Secour Fisheries, who is an Alabama Commissioner and Chairman of the GSMFC Commercial Fisheries Advisory Committee (CFAC), has asked that this issue be placed on the CFAC agenda for the fall meeting, scheduled for the week of October 16. Chairman Nelson also requested that a member of the TCC Artificial Reef Subcommittee be in attendance

at that meeting. Chairman Tatum recognized that he should not represent the Subcommittee at that time because of the Department's involvement in the issue. As a result, he has asked that Mike Buchanan, Mississippi, attend the meeting. Chairman Tatum agreed to add this issue to the Subcommittee's agenda so that it could be discussed prior to the CFAC meeting.

Lukens provided a discussion of the response of the Alabama Department of Conservation and Natural Resources to Bon Secour Fisheries' concerns. He indicated that a moratorium has been put in place on August 14, 1995, on the deployment of boat hulls and white goods (washing machines, refrigerators, etc.), which have been the offending materials. The response identifies three reasons for material being off site, including 1) material was deliberately placed outside the permitted area, 2) current and/or storm surge moved light weight materials off site, and 3) materials were drug off site in a shrimp net. The moratorium will be in effect until such time as documentation can be made relative to the stability of selected materials. The response indicated that enforcement activities have been increased during the moratorium, through coordinating with other agencies. Any materials that are thought to be susceptible to movement after deployment are being disallowed, and deployments must be made during the day time. If certain materials are found to be unstable after evaluation, those materials will be forever banned for use as artificial reef material for the Alabama program.

It was pointed out that the Subcommittee does not have specific positions related to the topics covered in the Alabama incident. The materials guidelines document does not make specific recommendations about the use or avoidance of use of particular materials, but rather discusses the benefits and drawbacks of using selected materials. Lukens pointed out that the individual who sunk the boat is known to the Department. It is not known if the sinking was intentional or accidental; however, the Department has required that the boat be retrieved and placed inside the permitted area. In that regard, it is the position of the Department that the provisions of the program are working to ensure that there is compliance with the rules and regulations. The position of the Subcommittee is for Mike Buchanan to attend the CFAC meeting and be prepared to answer questions in the event they are asked of him.

State Reports

Texas - J. Culbertson informed the Subcommittee that R. Kasprzak was member of the National Research Council committee to investigate alternative methodologies for oil and gas rig removal. Representatives of the Minerals Management Service also met with the committee. There was some agreement about waivers being granted for using innovative methodologies for removing oil and gas structures for artificial reef application. One such method involves cutting the structure above the depth limit required by USCG, allowing the base to stay intact on the bottom. Benefits of this method include higher profile structure, greater stability during storm events, the position is already known, explosives are not used thus reducing incidental mortality of living marine resources, and the cost could be less. Culbertson indicated that Texas will be using this alternative method of rig removal for the first time during the week of September 11. Other rigs will be available for this methodology in the near future.

Mississippi - Mike Buchanan indicated that the Department of Marine Resources (DMR) has been developing some inshore low-profile artificial reefs using small diameter limestone. He indicated that Congressman Gene Taylor of Mississippi has stockpiled a large amount of concrete rubble from the CB air field runway to use as artificial reef material. Congressman Taylor wanted to use the concrete to develop a series of near-shore reefs in about four feet of water. The DMR has had some concerns over liability issues regarding placing concrete rubble in areas so near shore where there is a great deal of recreational and boating activity. So far one site has been approved, which is where a large amount of bottom sediments was dredged leaving a large pit about 10 to 15 feet deep, which has been a safety hazard. The plan is to fill the pit with the rubble. There has been an effort to find someone to monitor the reef after it is built. He indicated that anecdotal information indicates that fishing around such near-shore rubble artificial reefs increases catch-per-unit-effort on such species as white trout, ground mullet, spotted seatrout, and other scianids, and the DMR would like to document that phenomenon.

Virginia - Mike Meier indicated that his program has recently established two new artificial reefs in the northern end of the Chesapeake Bay. Sixteen hundred concrete, prefabricated

tetrahedrons were used to create each reef site. He indicated that an additional 2,000 tetrahedrons will be deployed on those sites in the fall of 1995. Virginia's buoying system is scheduled to be reworked, having had problems with frequently loosing buoys. It is speculated that many of the buoys that have been lost were old and had been patched and repaired a number of times. It is anticipated that new buoys will be in place by the fall of 1995. Virginia will begin an update of the side-scan sonar surveys of their artificial reefs. Meier hopes to compare the new side-scan sonar survey results with those from several years ago to determine if any materials have moved. Meier reported that a significant amount of concrete material will soon be available from several boat ramps and a causeway to develop a new offshore artificial reef. Lukens asked Meier about the water depth at the two Chesapeake Bay reefs using the concrete tetrahedrons. Meier indicated that the depth ranges from 18 to 44 feet. Lukens question was related to concerns about liability exposure related to placing concrete materials in waters frequented by recreational boaters. Meier replied that the water depth was enough to minimize such concerns. There followed a short discussion regarding deployment configurations of the concrete tetrahedrons used in Virginia. Dodrill asked about the frequency of use and cost of the side scan sonar surveys. Meier indicated that the surveys have not been regular. He stated that they will be surveying a site soon, and it is anticipated that it will cost about $4 thousand.

New York - Steve Heins indicated that the main activity recently for New York has been work related to deploying army tanks with REEF-EX. He also mentioned a new side scan sonar system called SeaScan PC. The system costs about $20 thousand and is operated by a personal computer rather than having the computer chips in the tow fish. Rather than resulting in a printout, the data are displayed in graphic form on the computer screen. It can be printed out later. The system requires large memory capacity. A discussion regarding the use of side scan sonar for monitoring artificial reefs followed. Bell indicated that he has three complete EG&G side scan sonar units at his office, that are assigned to him from Navy surplus in his capacity in the Navy Reserve. Bell offered to make at least one of the units available to any state program that may need them. The requesting state will need to defray the cost of shipping the units out and

back, insure the equipment, and perform any maintenance and repair that may be necessary. A discussion regarding the units followed.

South Carolina - Mel Bell indicated that he plans to deploy 800 reef balls, which are commercially available prefabricated artificial reefs units, on four offshore sites during 1995. Additionally, two hundred of the units will be placed adjacent to a pier. He plans to begin discussions with the Department of Defense in the near future regarding a cooperative project under REEF-EX, which is the Army's program to make obsolete tanks and other military hardware available as artificial reef material. Bell is currently seeking Navy funding to participate in a study to evaluate PCB contamination associated with ships that have been sunk as artificial reefs. This is as a result of the Navy's interest in reinstituting its Sink-Ex program which uses ships as target practice. They also continue to be interested in donating ships to states for artificial reef deployment. For that reason, the Navy has a vested interest in resolving the PCB question. South Carolina has been conducting its own PCB study on ships which have been sunk offshore, and has not found any trace of PCBs in any of the tissues sampled. Bell stated that toad fish may become the primary indicator species, since they exhibit very sedentary behavior, perhaps even spending their entire lives in the same location.

Florida - Jon Dodrill indicated that his program managed 33 active reef grant projects, costing a total of $300 thousand in Federal Aid in Sport Fish Restoration funds and $600 thousand in saltwater fishing license money. Most of the projects were construction projects. One carry-over project involves cooperation of five county programs, and is costing $200 thousand. This project is building 10 patch reefs from prefabricated concrete modules, and is an extension of a research project conducted by Dr. Bill Lindberg. Bill Horn then gave a detailed description of the modules and the project. They plan to conduct monitoring and compare the sites developed during the project. Dodrill then discussed several research projects underway. Dodrill reported that a user conflict has arisen over a county funded project that place a variety of steel and concrete modules in a hole in Charlotte Harbor. The project was planned for several years and was approved by the proper authorities. Following deployment, people began calling to complain about the artificial reef, indicating that the site was a prime winter bay shrimping area. Many

people want the materials moved; however, public hearings and meetings were held prior to project implementation, and the materials are on a legally permitted site. At present, the materials are still on site, with no resolution to the conflict yet.

Louisiana - Rick Kasprzak informed the Subcommittee that his program has been working on a project to deploy the Freeport Sulfur Mine off Grand Isle, Louisiana. The structure is one mile long and is in 50 feet of water. The plan is to cut the structure off at 30 feet below the water line, giving 20 feet of vertical relief. The project will require fixed lighting, which will be installed by Freeport-Macmoran. It represents the longest single artificial reef in the country. Kasprzak discussed his involvement in the National Research Council effort to evaluate alternative methods of removal of oil and gas structures. He indicated that the results of the effort revealed that explosives still remain the preferred method of removing oil and gas structures. He indicted that the Council is looking for ways to encourage the petroleum industry to develop alternatives to using explosives, including some recommendations for regulatory changes, such as reducing the required depth below the mud line for severing rig legs. Kasprzak then discussed the Brent Spar issue in the North Sea. The Brent Spar was a large facility that was used to store oil for later pumping to shore. The owner of the facility, Shell, wanted to dispose it in about 6 thousand feet of water, with very little to no cleaning. Greenpeace discovered the plan and occupied the structure, refusing to leave until the plan was aborted. The outfall from this incident is that there is now an international movement to discontinue any at-sea disposal of oil and gas structures. This would, by association, include structures planned and used as artificial reef material. This movement may require some significant defense of the Rigs-to-Reefs program. Some discussion of the issue followed. There was some concern on behalf of several Subcommittee members that Greenpeace's interest in this issue could expand to deployment of all materials as artificial reefs.

REEF-EX

Lukens indicated that the REEF-EX agenda item was originally included for the Panama City, Florida meeting that got cancelled due to Hurricane Erin. He indicated that Bill Higgins

from the Defense Logistics Agency had planned to be at that meeting; however, since a number of things are going on with REEF-EX and the states, he indicated that it would still be useful for the Subcommittee to discuss the program. Kasprzak indicated that Louisiana has a REEF-EX deployment on September 19, and invited everyone to attend if they were interested. He stated that they plan to sink 40 armored personnel carriers from the Red River facility. The vehicles have already been cleaned, prepared for sinking, and inspected. The majority of costs for the operation is being borne by REEF-EX. J. Culbertson asked how to get involved with getting tanks and other vehicles from REEF-EX. Bell indicated that she should call Colonel Ogles, with the Army Materiel Command in Alexandria, Virginia. Upon sending them a letter indicating a desire to participate in REEF-EX, Colonel Ogles will respond saying these are the actions which you must take if you want to be involved. This will include getting the support of the Texas National Guard, which will be required for participation. Some discussion regarding logistics of and training through REEF-EX ensued. Getting to the final deployment of tanks and other vehicles through REEF-EX is very complicated and time-consuming. It was pointed out that the M551 Sheridan Tanks have a foam floatation material sandwiched between the side walls. However, it was determined by Bill Muir of the Environmental Protection Agency that the foam is not environmentally hazardous, and the foam will not act as a floatation mechanism, since it is designed to work in conjunction with a floatation ring deployed on the vehicle. It was found that the material will ultimately disintegrate to a dust form which is inert.

S. Heins indicted that New York got 20 REEF-EX vehicles to sink at no cost to the state. He is expecting 20 more vehicles in the near future. His program got the Coast Guard to provide a crew boat to transport observers. It was pointed out that during the original tank deployment offshore Mobile, the Coast Guard provided a cutter to transport members of the media. Heins indicated that Ft. Dix, New Jersey is the central repository and preparation site for REEF-EX, and material has continued to come in on a regular basis. Heins believes that the military has the funds to transport and deploy the vehicles at no cost to the states, and he encourages anyone interested in receiving tanks to withhold any funding, except for those extra courtesies that a state may want to provide to dignitaries or media. The group was cautioned to watch for barges that have a high

freeboard. Heins indicated that all of the vehicles deployed offshore New York flipped over and landed upside down, because the barge was so high off the water line. Dodrill concurred, indicating that deep water will also contribute to tanks landing upside down. There was a discussion regarding whether it matters if a tank is upside down. It was determined that it would matter to divers who want to see the tanks upright. Horn suggested that he believes that more habitat is available when the tanks are upright.

Materials Guidelines Document

Lukens informed the Subcommittee that the artificial reef materials guidelines document is nearing completion. He indicated that he still needs full edits of the document from each of the subcommittee members so that everyone can have an opportunity to contribute to each section. Several members provided Lukens with diskettes with additions to the document. Lukens explained the process, saying that now each Subcommittee member should review the entire document and provide additional comments and editorial corrections directly to Lukens. He stressed that the members not send comments to the original author of a section, but rather to his office, so that all corrections and additions can be centralized. He indicated that he will use the "strike-through/highlight" technique to indicate items that are proposed for deletion or change and items that are proposed for addition, respectively. Following the compilation of all edit material, Lukens will provide a final copy with the strike-through/highlight additions for final review by the Subcommittee. Bell indicated that he has provided a section on design materials. A discussion regarding the content of the section on design materials ensued. Lukens pointed out that some sections are not as detailed and complex as other sections. He asked if that was perceived as a problem; however, Lukens suggested that the more detail available the better the document will be. The Subcommittee concurred with that interpretation.

Lukens pointed out that the deadline for completion of the project is December 31, 1995; however, he indicated that there is a 90 day closeout period during which the document can be completed. In that regard, Lukens asked if the Subcommittee felt that an additional meeting would

be desired before the end of 1995. The Subcommittee indicted that if time allowed, another meeting would be preferred, rather than completing the project through the mail. Lukens asked for guidance on how to approach the conclusions section of the document. It was pointed out that the document ends awkwardly, without some kind of wrap-up section, and the Subcommittee recommended that a conclusion section be added. Dodrill suggested that the section should provide a summary discussion about what purpose the document is intended to serve. Bell added comments regarding not recommending specific materials over other materials, but rather a compilation of information regarding the use, benefits, and drawbacks of selected materials. Materials to be used by artificial reef programs will be determined on a program- by-program basis by the program coordinators, not dictated by this document. The Subcommittee reiterated its preference that the Literature Cited sections be located at the end of each section. Culbertson suggested that the document be segmented by chapters, and Bell suggested that the standard numbering system by used, such that a section would be structured as follows: 1.0, 1.1, 1.1.1, and so on. Dodrill asked how PVC pipe is being handled. Lukens was not sure, but indicated that there is supposed to be a miscellaneous section, which he has not yet developed. Lukens stated that he was unsure how to handle the miscellaneous section, because with some of the less prevalent materials, there is nothing in the literature, and experience with them is extremely limited. A discussion ensued regarding the implications of using plastics, regarding Marpol Annex V and the intent to create an artificial reef as opposed to ocean dumping. The current interpretation is that plastics are exempt from Marpol if they are a part of a planned artificial reef project. Several miscellaneous items were suggested, including fiberglass reinforced plastic (FRP), recycled plastic boards, steel such as crane derricks, bricks, ceramic items such as toilets and sinks, etc. It was decided that the section should simply mention that there is a list of other items that are miscellaneous, but that not much information exists on their use as artificial reef materials. Later efforts to update the document could include a more intensive treatment of materials not included in the first edition. It was pointed out that there is not a section on "white goods," which would include refrigerators, washing machines, clothes dryers, etc. Culbertson indicated that Tina Berger was assigned that section, but since she left the Subcommittee, that

section has been neglected. Kasprzak agreed to develop something on that section and send it to Lukens. Lukens asked the Subcommittee if it would be helpful to recite the materials criteria stated in the National Artificial Reef Plan as a framework by which to evaluate the materials discussed and the recommendations made in the document. The Subcommittee agreed that that would be a good addition, and that it should be put between the History and Purpose sections. Finally, Lukens asked for a deadline on submission of final material to him. The Subcommittee agreed to provide all comments to Lukens by Friday, September 29, 1995.

Gulf of Mexico Artificial Reef Data Base Development

Lukens informed that he had provided two handouts regarding the artificial reef data base, including a printout of the data elements from the actual data base and a listing of the data elements on separate sheets. The data base includes the state program profiles data and the reef data. The purpose of the agenda item is to begin the process of reviewing and revising the data elements that are in the data base. Some discussion ensued regarding problems with the existing data base, which is what led to the initiative to revise and update the artificial reef data base for the Gulf of Mexico. Lukens pointed out that there are two issues regarding the existing data; 1)some of the fields that should have numeric characters have alpha characters or both alpha and numeric characters, and visa versa, and 2)some of the data are wrong. It was pointed out that at some point in time, the Subcommittee will have to determine which standards will be used to record data, which means choosing between feet and meters, statute versus nautical miles, etc.

Lukens informed the Subcommittee that the GSMFC office had purchased a personal computer that will be dedicated to housing several small data bases. The data will be entered into Dbase 5, and will be updated periodically. If there are enough requests for these data from outside sources (ie. other than the state programs), the GSMFC will get a dedicated phone line and allow people to access the data directly for retrieval only. He stated that the data base should be consistent with Geographic Information System (GIS) technology, so that anyone attempting to use the data in a GIS system will avoid having to "clean up" the data before using it. This issue

regarding GIS compatibility arose when the Minerals Management Service attempted to use the data base to plot artificial reefs sites in conjunction with offshore oil and gas leasing activities. There ensued a discussion regarding time frames for updating the data base and the possibility of using the Internet to update and transfer data.

Lukens then asked the Subcommittee to review the data lists and determine what a listed data element means and if that data element should be collected. The following in a summary of that activity.

STATE PROFILES DATA BASE

State (alpha, abbreviation, MS, AL, etc.)
Council Region (alpha)
NMFS Office (alpha)
Coast Guard District Office (alpha)
U.S. Army Corps of Engineers District Office (alpha)
U.S. Fish and Wildlife Service Region (alpha)
Environmental Protection Agency Region (alpha)
State Reef Program (Y/N)
    If no in planning stages (Y/N)
Funded (Y/N)
Coordinator (Y/N)
State Plan (Y/N)
    Date completed
    If no in preparation (Y/N)
Number of Permits
    state waters
    federal waters
Number of Reef Sites [lat/long (dd.mm.ss.) for each deployment]
Contact Name
Contact Title
Contact Address
Contact Telephone
Other Reef Building Organizations in State
    Local (Y/N)
    Private Interests (Y/N)
    Business (Y/N)
    Scientific (Y/N)
    Other (Please Specify)

Full-time Reef Staff (Number)
Part-time Reef Staff (Number)
Conduct Research (Y/N)

Types of Research
- Fisheries
- Reef Ecology
- User Demand
- Economic
- Other research (Specify)

Format of Data Archives
- Written record (Y/N)
- Annual Reports (Y/N)
- Computerized (Y/N)

Pre-deployment Evaluations (Y/N)
Post-deployment Monitoring (Y/N)
- Compliance monitoring (Y/N)
- Performance monitoring (Y/N)

GULF OF MEXICO PROFILES DATA ELEMENTS

State
County

Permitted Area
- Permit Number
- Reef Name
- OCS Lease Block
- Active (Y/N)

Descriptive Information
Latitude
Longitude
Depth
Maximum relief (ft)
Distance from shore (miles)
Date deployed

The following section on monitoring practices will be included under the monitoring heading under the Reef Profiles Data Base.

Monitoring Practices (Y/N)
- Pre-existing uses
- Proximity to bottom
- Bottom hardness
- Sediment characteristics
- Current
- Water clarity
- Temperature
- Salinity
- Invertebrate assemblages
- Fish assemblages
- Reef materials
- Reef relief

Additional data elements remain to be reviewed; however, there was not enough time at the meeting to cover all of the remaining data elements. The Subcommittee decided to postpone completion of this task until the next meeting.

Gulf of Mexico Artificial Reef Economic Study

Les Dautrive, Mineral Management Service (MMS) in New Orleans, Louisiana, informed the Subcommittee that there is a possibility of getting some economic work conducted through the MMS studies program. He indicated that the MMS may be interested in such work due to their interest and participation in the Rigs-to-Reefs program. He indicated that the interest had been raised by Villere Reggio at the MMS office. The MMS studies program is a two-year process which requires that someone on MMS staff introduce an interest in a particular study. Reggio has submitted a proposal (profile) to evaluate the economic impact of fishing around oil and gas structures and artificial reefs. If approved at the New Orleans office, the study would be forwarded to a regional technical working group, which has a state representative as a member. Interest from the Subcommittee could be expressed to the membership of the regional technical

working group. If approved, the project would be funded by the MMS. Dautrive indicated that he will work through Lukens to provide contact persons and time frames regarding input into the studies program process.

Dautrive informed the Subcommittee the Norm Froomer in his office has nearly completed his task of revising the Gulf data base for MMS use. He provided two handouts that he asked Lukens to copy to the Subcommittee. Lukens indicated that the Subcommittee had asked for assistance from Norm and Warren Barton to assure that the revision of the data base, as discussed in the above agenda item, is GIS compatible.

Dautrive indicated that the MMS Information Transfer Meeting is scheduled for December in New Orleans. He also informed the Subcommittee of a national workshop that is being planned that will address offshore leasing and platform disposal. One of the major agenda items will be platform removal. It is scheduled for April 15-17, 1996, in New Orleans, Louisiana. Dautrive indicated that he will inform Lukens as the workshop develops, so that he can inform the Subcommittee.

Update on GSMFC Action on Coal Fly Ash

Lukens informed the Subcommittee that Jan Culbertson had provided a presentation to the GSMFC Technical Coordinating Committee (TCC) regarding the Subcommittee's action on coal fly ash during the December 1994 meeting in New Orleans. The recommendation of the TCC was to draft a letter from the GSMFC for distribution to the agencies and individuals who originally received copies of the resolution approved by the GSMFC which called for a moratorium on the use of coal combustion and municipal waste incineration ash residue as artificial reef material. The resolution also called for the rapid development of guidelines for the use of those ash residues, as appropriate. Lukens drafted the letter for the GSMFC Chairman's signature and distributed it to the appropriate agencies and individuals. The letter indicated that the GSMFC resolution was still in effect; however, pursuant to the development of the fly ash guidelines, coal combustion fly ash was being withdrawn from the resolution. Lukens indicated that he had received a number

of responses to the letter, all of which were positive. Lukens pointed out that the U.S Fish and Wildlife Service had responded with some specific recommendations, and suggested that those recommendations be considered by the Subcommittee at a later date.

Lukens reminded the Subcommittee that guidelines for the use of coal combustion fly ash were approved by the Subcommittee. That action was the content of Culbertson's presentation to the TCC.

NMFS Representation on the TCC Artificial Reef Subcommittee

Lukens reminded the Subcommittee that Ron Schmied has become ill and will be in medical therapy for a long time. In that regard, the NMFS Regional Office has submitted a replacement for Schmied on the Subcommittee. That replacement is Mark Thompson, who works at the NMFS Panama City, Florida laboratory in the Habitat Protection Division. Mark was scheduled to attend the Panama City meeting that was cancelled, and apparently he could not attend the current meeting. Lukens indicated that he will stay in touch with Thompson regarding recent activities and upcoming meetings. It was asked if Schmied would return to the Subcommittee when he recovers from his illness. Lukens indicated that it was his impression that Schmied would resume his Subcommittee membership.

Other Business

Lukens indicated that the Subcommittee has only met once during 1995, and that he had budgeted for two meetings. He informed the Subcommittee that if another meeting is held during 1995, it will be time to elect officers. He reminded the Subcommittee that when Chairman Tatum was elected, he preferred to name a Vice-Chair, who is Rick Kasprzak. Lukens suggested that this is a Chairman's prerogative, but that if another Chair is elected, that individual can decide if he/she wants to name or elect a Vice-Chair. Lukens asked the Subcommittee to be considering the election issue for the next meeting. Lukens indicated that if another meeting is not scheduled,

the Subcommittee should conduct a mail ballot for officers, so that the new officers can take up their duties as of the first of 1996.

There being no further business, the meeting adjourned at 4:30 pm.

APPROVED BY:

COMMITTEE CHAIRMAN

STOCK ASSESSMENT TEAM (SAT)
MINUTES
September 6-7, 1995
Pensacola, Florida

Joe Shepard, Chairman, called the meeting to order at 1:15 p.m. The following were in attendance:

Members
Billy E. Fuls, TPWD, Rockport, TX
Skip Lazauski, AMRD, Gulf Shores, AL
Robert Muller, FDEP/FMRI, St. Petersburg, FL
Joe Shepard, LDWF, Baton Rouge, LA
James Ray Warren, GCRL, Ocean Springs, MS
Behzad Mahmoudi, FDEP/FMRI, St. Petersburg, FL

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was approved as presented.

Approval of Minutes

The minutes of the meeting held November 2-3, 1994, in Mobile, Alabama, were approved as presented.

Review of Striped Mullet Stock Assessment

Behzad Mahmoudi presented an overview of mullet stock assessment. The SAT carefully reviewed the document and provided comments and changes. The SAT asked if recreational landings were included in the stock assessment. It was noted that commercial and recreational Gulf landings would be included in the fisheries section of the FMP. The SAT asked Behzad to look further at data in publications such as Sissenwine's and add two or three paragraphs reviewing existing publications. The SAT agreed that the conclusions section should be expanded adding a discussion on thresholds and targets. Behzad agreed to update the stock assessment and have to the GSMFC by September 18.

Review of Spotted Seatrout Databases, Potential and Preferred Analyses

Skip Lazauski reported that larval/juvenile information is available for Alabama. A creel survey was done in the late 1980s, but it is still on paper. Information is available from the National

Recreational Survey, and a creel survey for speckled trout is beginning October 1, 1995 and will extend through September 30, 1996.

Billy Fuls reported that the Texas stock assessment will be delivered at the end of the year and will include bag seine data since 1977, gill seine data since 1975, information from the TPWD Survey since 1983, and age/length data since 1989. Texas has a good database, and Mark Fisher in Austin will perform the stock assessment.

Bob Muller reported that Florida has information from a juvenile survey from 1989-1994. They have information from the National Recreational Survey, trip ticket data, commercial catch by gear, maturation/histology by region, and 1986-1988 otolith data. With this information, Florida has a sound database to perform a stock assessment.

Tut Warren reported that Mississippi has information from MRFSS from 1979 to 1994. Creel survey data is available from 1987 to present, and they have commercial catch, age, and juvenile data to contribute to the regional stock assessment.

Joe Shepard reported the Louisiana stock assessment is in rough draft form and is expected to be complete at the end of September. As soon as complete, he will send a copy to the GSMFC office for distribution to the entire SAT.

The SAT agree to have their respective state's portions of the stock assessment drafted and sent to Rick Leard by the end of 1995.

Discussion of Future Species/Fisheries for IJF FMP Development

Each state prioritized the following species (listed in order of priority):

- Alabama - flounder, croaker, sheepshead, spot, bay anchovy, white shrimp
- Texas - flounder, croaker, sheepshead, spot, brown shrimp, bay anchovy, sand seatrout
- Florida - red drum, sheepshead, flounder, croaker/spot, small pelagics, white & brown shrimp, anchovy
- Mississippi - flounder, sheepshead
- Louisiana - sheepshead, flounder, red drum, croaker/spot, brown shrimp

From the above list, the SAT concluded the group consensus of the following species:

1. flounder
2. sheepshead
3. croaker

Louisiana also noted the importance in revising existing FMPs including striped bass and Spanish mackerel.

Other Business

The SAT discussed problems with ageing various species of fish and potential inconsistencies among research components. The discussion centered on the need to identify problems with aging by species, determining standardized removal and sectioning techniques, determining standardized techniques for aging by species, and developing a procedures manual. The SAT identified Bruce Thompson, Roy Crabtree, Chuck Wilson, and Mike Murphy as those who should be invited to participate as instructors. It was suggested that Mike Murphy, along with staff support from Rick Leard, coordinate and develop an outline for the workshop. It was noted that facilities such as the Florida Marine Research Institute (FMRI), the Gulf Coast Research Laboratory, or the Louisiana Marine Laboratory should be used where the entire process could be run through. It was thought that the FMRI would be better as far as travel logistics are concerned. The SAT agreed that the procedures manual would be developed as a product of the workshop, and the manuals should be distributed to technicians.

*Skip Lazauski made a motion that the SAT support and generate the outline for a workshop to develop standardized procedures for ageing interjurisdictional fisheries species. Bob Muller seconded the motion which passed unanimously.

Skip Lazauski asked the SAT to think about the possibly of having a publisher such as Chapman Hall publish the procedures manual from the workshop. He also noted the inconsistency of data from stock assessments.

Behzad Mahmoudi noted that the evaluation of the effects of regulations on fisheries and subsequent shifts in effort (historical and futuristic) may be a good general session topic for a GSMFC meeting.

All members agreed to provide E-mail addresses to the GSMFC office for inclusion on the SAT membership list. Once provided, the list will be distributed to all committee members.

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

APPROVED BY:

R. H. B

COMMITTEE CHAIRMAN

SPOTTED SEATROUT TECHNICAL TASK FORCE MINUTES
September 7-8, 1995
Pensacola, Florida

Harry Blanchet, Chairman, called the meeting to order at 1:15 p.m. The following were in attendance:

Members
Chuck Adams, UF, Gainesville, FL
Harry Blanchet, LDWF, Baton Rouge, LA
Billy Fuls, TPWD, Rockport, TX *(proxy for Larry McEachron)*
Bob Muller, FMRI, St. Petersburg, FL
Jerald K. Waller, ADCNR/MRD, Dauphin Island, AL
James "Tut" Warren, GCRL, Ocean Springs, MS

Others
Joey Shepard, LDWF, Baton Rouge, LA

Staff
Rick Leard, Program Coordinator
Cindy Yocom, Staff Assistant

Adoption of Agenda

The agenda was adopted as presented.

Approval of Minutes

The minutes of the meeting held December 7, 1994, in Pensacola, Florida, were approved with editorial changes by Harry Blanchet.

Discussion of Stock Assessment

Joey Shepard, Chairman of the Stock Assessment Team, presented a brief overview of their meeting held just prior to the task force meeting. The SAT had previously agreed that individual state stock assessments will be performed, and these conclusions will be assimilated into a regional overview. The regional assimilation will be coordinated by Bob Muller. State stock assessments are due at the end of this year.

Review of FMP Progress by Section

The task force reviewed the FMP draft and made the following comments and suggestions:

Section 3 -

Add tables on length/age, length/weight, and fecundity at age
3.2.2 Murphy & Taylor 1994, Colura 1994
All states - add 3.2.1.1 through 3.2.2.5
Change 3.2.4 to Parasites, Disease, Contaminants
p. 3-5, Bob Muller - check with K. Peters
p. 3-6, Rick Leard - rewrite 1st line, 2nd ¶ to clarify
3.2.3.2.1 - don't start with Wieting, use Brown-Peterson (Wieting is an unpublished Master's Thesis; Brown-Peterson is peer-review published)
3.2.3.2.2.3 - spawning duration estimates have been made

Section 4 -

Section on habitat, expand as Atlantic Coast outline, habitat suitability studies?, maintain habitat as a separate section
Add 4.3 Pollution
Add freezes and red tides

Section 5 -

Incorporate laws received from Florida and Mississippi

Section 6 -

State representatives need to draft descriptions of their state's fishery

Section 7 -

Bob Muller will provide Chuck Adams with a list of all seatrout dealers on Florida West Coast in 1994
Sources noted were Bob Ditton and Alan Rutherford
Effort information available for Florida only
Louisiana has handler information (contact Joey Shepard)
Mississippi contact - Fred Deegan
Marketing systems for each state
Cost and earnings data
Consumption surveys in Mississippi and Alabama (1991)
Economic interdependencies - how does seatrout affect other industries, etc.
Market competition - imports from Mexico
Rick Leard will request Mexico landings

Section 8 -

Rick Leard will work to identify a writer/coordinator for this section.

Section 9 -

9.4.6 (Habitat Reduction and Degradation) should be described in section 4 (Description of the Habitat)

Section 10-

Add 10.6.4 (Education)

Section 11 -

Management measures will be written after stock assessment

Section 12 -

Everyone to contribute research priorities and data needs as plan is being written

Section 13 -

Add boilerplate to next draft

Section 14 -

Everyone contribute references as sections are written

Timetable for Completion/Next Meeting

Work will focus on the stock assessment during the fall and winter of 1995 and will then shift to economic and sociological sections in spring 1996. Management recommendations will be drafted by late summer 1996, and the FMP should be finished for approval at the October 1996 meeting. The FMP should be complete by December 1996. The next FMP work session is tentatively scheduled for late November or early December.

There being no further business, the meeting adjourned at 5:20 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

MULLET TECHNICAL TASK FORCE
MINUTES
September 21-22, 1995
Pensacola, Florida

Behzad Mahmoudi, Chairman, called the meeting to order at 1:10 p.m. The following were in attendance:

Members
Harry Blanchet, LDWF, Baton Rouge, LA
Walter Keithly, LSU, Baton Rouge, LA
Skip Lazauski, ADCNR/MRD, Gulf Shores, AL
Ray Lenaz, Biloxi, MS
Behzad Mahmoudi, FMRI, St. Petersburg, FL
Kyle Spiller, TPWD, Corpus Christi, TX

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as presented.

Approval of Minutes

*Walter Keithly moved to approve and adopt the minutes of the meeting held June 8-9, 1995, in Gulf Shores, Alabama. Skip Lazauski seconded the motion, and the motion passed unanimously.

Review of Draft Sections

The task force reviewed draft sections, made corrections as necessary, and identified areas in need of change or completion. A list of tasks to complete are as follows:

- All - send in the list of names for the acknowledgement section
- Rick - complete authorship list (2.4) as appropriate
- Behzad - check Table 3.4
- Behzad - summarize tagging, page 3-18
- Harry, Behzad, Buck, Skip - make changes to Table 4.2, p. 4-12
- All - cite p. 5-3, last ¶, Fred Bull?
- Harry - cite for statement on p. 5-10, section 5.1.2.4, first ¶ or was this a LDWF derived statistic?
- Kyle - cite p. 5-12, last ¶, 2nd sentence
- Harry - check addition p. 5-12, last ¶'s before section 5.1.2.5 (Texas)
- Walter - check statements p. 6-3
- Skip - contact name and address for AL Coastal Conservation Association
- Walter - review dealer/processor questionnaires and provide other suggested changes to Section 8
- Harry - get contact name and address for LA Seafood Management Council
- Behzad - add introductory statements and reference Appendix in Section 9.3, first ¶

- Behzad - revise 2nd ¶, p. 9-3 "weekend closures..." add introductory sentence and expand with citations
- Behzad and Skip - check last ¶ of section 9.3.4, p. 9-3, revise SPR percentages
- Behzad - add conclusions from stock assessment to section 9.3.5, p. 9-3
- Harry - review section 9.3.5, provide comments to Rick
- Rick - rewrite and restructure all of section 9.4
- Walter - rewrite section 10.5 (limited access considerations)
- Walter - revise section 10.6.2 and 10.6.2.2 and draft additional section 10.6.2.3 (social and economic data)
- Behzad - rewrite 2nd and 3rd ¶s, p. 11-1, make consistent with section 9.3.4 and stock assessment
- Rick - rewrite last full ¶, p. 11-1
- Rick - citations check throughout FMP

Timetable for Completion

Assignments will be completed and into the GSMFC office by October 4, 1995. A revised draft will be sent to the TTF as soon as possible thereafter, and a meeting may be scheduled for the end of October or early November to review the final document and to vote on sending the document to the next step (TCC review) in the FMP development and approval process.

There being no further business, the TTF adjourned on Friday, September 22, at 5:01 p.m.

RecFIN(SE) COMMITTEE MINUTES
September 26, 1995
Miami, Florida

1178 28 Feb 96

Chairman Pro Tem Skip Lazauski called the meeting to order at 1:35 p.m. The following people were present:

Joe Desfosse, ASMFC, Washington, DC
Bob Dixon, NMFS, Beaufort, NC
David Donaldson, GSMFC, Ocean Springs, MS
Graciela Garcia-Moliner, CFMC, San Juan, PR
Lee Green, TPWD, Rockport, TX
Albert Jones, NMFS, Miami, FL
Lisa Kline, ASMFC, Washington, DC
Tony Lamberte, GMFMC, Tampa, FL
Wilson Laney, FWS, Raleigh, NC
Skip Lazauski, ADCNR, Gulf Shores, AL
Ron Lukens, GSMFC, Ocean Springs, MS
Joe Moran, SCDNR, Charleston, SC
Nick Nicholson, GDNR, Brunswick, GA
Joe O'Hop, FMRI, St. Petersburg, FL
Maury Osborn, NMFS, Silver Spring, MD
Tom Schmidt, NPS, Homestead, FL
Joe Shepard, LDWF, Baton Rouge, LA
Mike Street, NCDMR, Morehead City, NC
James Timber, PRDNER, Puerta de Tierra, PR
Lee Trent, NMFS, Panama City, FL
Tom Van Devender, MDMR, Biloxi, MS

Adoption of Agenda

The agenda was approved as written.

Approval of Minutes

The minutes from the RecFIN(SE) meeting held on March 1-2, 1995 in Jacksonville, Florida were approved with minor editorial changes.

Follow-up Discussion Concerning the Facilitated Session

R. Lukens stated that the purpose of this session was to develop recommendations regarding recreational data collection and use these recommendations to guide the program into the future. The facilitated session was called to review the

status of the RECFIN strategic plan after its first three years of operation. The Committee also discussed an update of the plan as necessary, and provided options and recommendations to extend the operations of the RECFIN program. The recommendations and discussions from the activity will form the basis for the operating plan for FY 1996, and provide general guidance for the next five years. On the first morning, the committee broke out into two separate groups, who each reviewed the past three years and assessed the successes or failures of the strategic plan during that period. The groups developed some preliminary recommendations that were reviewed and expanded upon in the plenary session. During this session, the Committee reviewed the products of the two breakout groups, and generated specific recommendations and then prioritized the recommendations. M. Osborn suggested that from the document produced by the facilitators, a list be developed that outlines the general issues and prioritized recommendations that were develop by the group. R. Lukens stated that this session has been very productive and asked the group if they felt it was a worthwhile exercise. The group agreed that the session made it much easier to develop a plan for the future and this method should be used in future planning activities. **S. Lazauski moved that this method be used every three to five years, as necessary for future planning activities based on availability of funding. The motion was seconded and passed unanimously**.

Administrative Issues

a. Review of RecFIN(SE) Goals and Objectives and Framework Plan

R. Lukens stated that it is probably necessary to review the framework plan and goals and objectives of the program since the program is moving past the three-year pilot status. Related to this issue, R. Lukens asked if there would be some merit in publishing both RecFIN and ComFIN under one plan similar to the memorandum of understanding (MOU) that has been developed. The programs would still be separate but simply be included in one plan. The Committee believed that publishing one plan to include both RecFIN and ComFIN was a good idea and **R. Lukens moved to charge the Administrative Subcommittee with reviewing and recommending changes to the**

RecFIN(SE) Framework Plan and goals and objectives and develop a document that includes RecFIN and ComFIN. The motion was seconded and passed unanimously.

b. Status of Administrative Subcommittee

R. Lukens stated that currently the Administrative Subcommittee is listed as an ad hoc subcommittee and **R. Lukens moved that the status of this subcommittee be changed to a standing subcommittee. This change will be reflected in the revised framework plan for RecFIN/ComFIN. The motion was seconded and passed unanimously.**

c. Inkind Support Issues

D. Donaldson stated that at the last meeting, continuation of collecting inkind support figures was discussed. It was suggested that this activity continue at least until dedicated funding for the program could be secured. Since the program now has administrative funding, the question of continuing this activity needed to be discussed by the Committee. After some discussion, the Committee believed that this activity was still useful and should continue. M. Osborn suggested that staff would distribute an inkind support form that would be completed throughout the year by participants. The completed form would be sent to staff at the end of the year and be compiled. D. Donaldson stated that for this activity to be successful, each participant has to be diligent about compiling this information and sending it to staff. **J. Moran moved that the Committee continue compiling inkind support information and the information from the previous year be provided by participants during each spring meeting. This issue will become a standing agenda item. The motion was seconded and passed unanimously.**

Discussion of RecFIN(SE) Program Review

R. Lukens stated that the Administrative Subcommittee was charged with organizing the program review. It was noted in the last meeting's minutes that the review team consisted of Cynthia Jones, Bob Ditton, and John Harville. Unfortunately, John Harville became ill and he had to be replaced by Gene Nakamura. The review was conducted in early May 1995 at the NMFS facility in Panama City, Florida. There was a great deal of discussion during the meeting among the committee members and review panel. The report developed by the review team has been distributed to the Committee and provides a positive review of the RecFIN(SE). There are four major recommendations included in the report. The Committee discussed the recommendations included in the report. J. Moran stated that the Committee has addressed most of these issues during this meeting. The program review report satisfied the objective and task and the charge of conducting a program review has been completed. There was some discussion concerning including financial commitments in the MOU (recommendation 1) and although the Committee understood the intent of the recommendation, there was some disagreement as it was written. **W. Laney moved that the Administrative Subcommittee review the report and identify the action items and provide recommendations concerning if additional action is necessary regarding these items to the Committee. The motion was seconded and passed unanimously**.

Work Group Reports

a. Biological/Environmental

D. Donaldson reported for Work Group Leader, Steve Meyers, that the QA/QC document has been finalized regarding the biological and environmental elements and the group is working on incorporating social and economic aspects in the document. At the March meeting, there was a work group meeting and the major discussion point was the development of criteria for compiling the meta data. A document concerning meta data has been developed and been distributed to the Committee for their comments.

b. Social/Economic

D. Donaldson reported that due to Work Group Leader Ron Schmied's illness, work by the group has been slow. M. Osborn suggested that the Committee appoint a temporary work group leader so work can continue regarding the social and economic aspects of recreational fishing. The Committee decided that this issue should be addressed at the spring meeting. In the meantime, members need to consider some possible solutions to be discussed at that meeting.

Operations Plan

a. Status of 1995 Activities

D. Donaldson provided a list of tasks from the 1994 Operations Plan. Their status was distributed and the Committee reviewed the tasks individually. After reviewing the list, the Committee agreed that all the activities identified in the 1994 Operations Plan have been completed, or work is currently being conducted to complete them in the allotted time frame. The list of tasks and their revised status is attached.

b. Development of the 1996 Operations Plan

The 1996 Operations Plan was essentially developed during the facilitated session preceding the Committee meeting. The recommendations that were identified as high priority were determined to be tasks that would be addressed in 1996. The Committee directed the staff to develop a draft plan and distribute it for changes and comments. Once a final document has been developed, it would be approved via mail ballot.

Other Business

J. O'Hop stated that FDEP is funding a pilot survey to conduct a creel sample of Tampa Bay. The goal of this project is to estimate catch and effort in Tampa Bay. The estimates that are calculated from this survey will be compared to the MRFSS estimates. Where possible, the methodology for the Florida survey closely mirrors the MRFSS. He asked the Committee to review the methodology and contact him with any comments.

Once the project is operational, J. O'Hop suggested that a presentation could be made to this Committee concerning the survey.

There being no further business, the meeting was adjourned at 4:25 p.m.

TASKS FROM THE 1995 OPERATIONS PLAN AND THEIR STATUS

Task 1: Annual Operations Plan, 1996 (Goal 1, Objective 3)

Objective: Develop 1996 Annual Operations Plan including identification of available resources, that implements the Strategic Plan.

Status: The Operations Plan will be developed from the facilitated session held prior to the RecFIN business meeting at the fall 1995 meeting.

Task 2: Information Dissemination (Goal 1, Objective 4)

Objective: Distribute program information to cooperators and interested parties.

Status: This task is an ongoing activity.

Task 3: Program Review of the RecFIN(SE) (Goal 1, Objective 5)

Objective: Conduct a formal external program review of the RecFIN(SE) to evaluate the effectiveness of the program in achieving the goals and objectives.

Status: The review was completed in May 1995 and the report has been distributed to the Committee and action will be taken at the fall 1995 meeting.

Task 4: Social/Economic Quality Assurance and Quality Control (Goal 2, Objective 3)

Objective: Identify and determine standards for sociological and economic data collection, including statistical, training, and quality assurance and quality control standards.

Status: Work is continuing on this task and this activity will be discussed at the fall 1995 meeting.

Task 5: Identification and Evaluation of Current Programs (Goal 2, Objective 4)

Objective: Identify and evaluate the adequacy of current programs for meeting RecFIN(SE) requirements.

Status: This issue will be discussed during the facilitated session at the fall 1995 meeting. However, this task is an ongoing activity as additional MRF surveys are reviewed.

Task 6: Coordination and Integration of Data Collection Efforts (Goal 2, Objective 5)

Objective: Encourage coordination, integration, and augmentation, as appropriate, of data collection efforts to meet the RecFIN(SE) requirements.

Status: This issue will be discussed during the facilitated session at the fall 1995 meeting. This is an ongoing activity.

Task 7: Evaluation of Innovative Data Collection Technologies (Goal 2, Objective 6)

Objective: To evaluate and recommend innovative data collection technologies.
Status: This is an ongoing activity.

Task 8: Design, Implementation and Maintenance of Data Management System (Goal 3, Objective 3)

Objective: To design, implement, and maintain an MRF data management system to accommodate fishery management/research and other needs (e.g., trade and tourism).
Status: Work on migrating MRFSS data bases to the IT-95 system began in 1994 and be completed in spring 1995. Development of the Decision Support System will begin in 1995.

Task 9: Standards/Protocols/Documentation for Data Management (Goal 3, Objective 4)

Objective: Develop standard protocols and documentation for data formats, input, editing, quality control, storage, access, transfer, dissemination, and application.
Status: Documentation and standardization of MRFSS intercept and telephone historical data bases was begun in 1993. The final intercept format will be adopted by MRFSS staff by March 1995 and be available for distribution. Similar documentation of the telephone data base has just begun and will be finished by March 1995. Basic documentation of the catch and trip estimate data bases exists and will be updated when these data bases are placed on the MRF data management system. Standardization of variables will also occur then. Development of dial-up protocols and on-line documentation will depend on work identified under Task 8.

Task 10: Evaluation of Information Management Technologies (Goal 3, Objective 6)

Objective: To evaluate and recommend innovative, cost-effective information management technologies.
Status: This is an ongoing activity.

Task 11: Long-term National Program Planning (Goal 4, Objective 1)

Objective: Provide for long-term national program planning.
Status: This issue will be discussed during the facilitated session at the fall 1995 meeting. The planning aspect of this task is an ongoing activity.

Task 12: Coordination, Consistency and Comparability with Other RecFIN Programs (Goal 4, Objective 2 and Objective 3)

Objective: Coordinate RecFIN(SE) with other regional RecFIN programs and encourage consistency and comparability among regional programs over time.

Status: This issue will be discussed during the facilitated session at the fall 1995 meeting. This task is an ongoing activity.

Approved
2/28/96

FISHERIES INFORMATION NETWORK
MINUTES
September 27, 1995
Miami, Florida

Chairman Joe O'Hop was called the meeting to order at 8:30 a.m. The following people were present:

Josh Bennett, NMFS, Miami, FL
Julie Califf, GDNR, Brunswick, GA
Joe Desfosse, ASMFC, Washington, DC
David Donaldson, GSMFC, Ocean Springs, MS
Graciela Garcia-Moliner, CFMC, San Juan, PR
Susan Gold, NMFS, Miami, FL
Lee Green, TPWD, Rockport, TX
Albert Jones, NMFS, Miami, FL
Lisa Kline, ASMFC, Washington, DC
Tony Lamberte, GMFMC, Tampa, FL
Wilson Laney, FWS, Raleigh, NC
Skip Lazauski, ADCNR, Gulf Shores, AL
Maria Llaneras, NMFS, Miami, FL
Ron Lukens, GSMFC, Ocean Springs, MS
Dee Lupton, NCDMF, Morehead City, NC
Joe Moran, SCDNR, Charleston, SC
Nick Nicholson, GDNR, Brunswick, GA
Joe O'Hop, FMRI, St. Petersburg, FL
Maury Osborn, NMFS, Silver Spring, MD
John Poffenberger, NMFS, Miami, FL
Tom Schmidt, NPS, Homestead, FL
Joe Shepard, LDWF, Baton Rouge, LA
Mike Street, NCDMR, Morehead City, NC
James Timber, PRDNER, Puerta de Tierra, PR
Tom Van Devender, MDMR, Biloxi, MS
Vickie Williams, NMFS, Miami, FL

Opening Comments

Brad Brown, director of the Southeast Fisheries Science Center, gave some brief introductory comments and welcomed everyone to the NMFS facility. He stated that the activities that the group is involved in are extremely important for the development of fully integrated state /federal cooperative statistics program. This activity is very important, and their is support throughout the NMFS for this activity.

Adoption of Agenda

The agenda was approved with the addition of Discussion of E-mail Addresses under Other Business.

Approval of Minutes

The minutes from the FIN meeting held on February 28, 1995 in Jacksonville, Florida were approved as written.

Presentation of IT-95 Computer Capabilities

S. Gold stated that the Southeast Fisheries Information Network (SEFIN) is a distributed relational data base created to house all fisheries data, dependent and independent, that are collected in the Southeastern United States. ORACLE, a relational data base management system (RDBMS), is being used. A RDBMS organizes data into information and reliably manages large amounts of data in a multiuser environment. It also secures the data, provides mechanisms of data recovery, and enforces data integrity by enforcing business rules. The SEFIN includes data from logbooks, tagging, gulf shrimp, permits, vessels, TIP, etc. The system is a relational data base where a user actually accesses a variety of data bases to get the data that is wanted. The data base may reside in one or many machines, or many data bases can be linked together. There are a variety of methods of connecting to the data on the SEFIN depending on whether you work for NMFS or the states. States can connect to the SEFIN by either the Internet or via modems. The computer hardware is called the SEFHOST which is a CDS 9460. The central processing unit is a MIPS R4400 processor with 128 megabytes of RAM and a storage capacity of 25 gigabytes. It also includes several 8mm and 9mm tape drives and a CD-ROM. The operating system is IRIX 5.3 which is a UNIX based system. The data are accessed via retrieval programs developed by the data management personnel in Miami. These programs use the structured query language (SQL) and SQL*Plus. By using these programs, the data can be directly imported into spreadsheet, data query, and other common programs. The SEFIN is a menu driven system with on-line status reports available, as well as access to code tables. In addition, on-line documentation which provides an overview of the data collection program and table and column descriptions are available for the variety data bases. Due to the new system, the quality of data has improved. Some of the improvements include

automatically recorded charges in tables that are stored in the data bases, a load history for every system, streamlining loading procedures, automatic validation at the time of loading, applications created for editing data on-line, establishment of naming conventions, and data standardized in companion columns preserving original data. In addition, a variety of checks and balances have been established to ensure that confidential data are not released to unauthorized personnel. After the overview of the network, S. Gold provided a hands-on demonstration of the SEFIN to demonstrate the capabilities of the system.

Memorandum of Understanding for RecFIN/ComFIN

R. Lukens stated that the Committee needs to take action on the Fisheries Information Network (FIN) Memorandum of Understanding (MOU) at this meeting since the GSMFC and ASMFC are expecting to get state participants signatures for the document at their annual fall meetings. L. Kline stated that the ASMFC was asked by their South Atlantic Board to compare the FIN MOU and the MOU to establish the Atlantic Coastal Cooperative Statistics Program (ACCSP). The ACCSP MOU is also scheduled to be signed at the ASMFC fall meeting. Thus, there is some concern among the south Atlantic states and the ASMFC is advising the south Atlantic members to sign both MOUs since the ACCSP will probably not be operational for other two years. The major concern among the south Atlantic states was to ensure that there were no major differences between the two MOUs. L. Kline stated that she and J. Desfosse reviewed both MOUs and found only minor differences. She presented the identified differences to the Committee. Under the proposed program section, a sentence stating that this program will incorporate other data collection programs, as appropriate has been added to the ACCSP MOU. R. Lukens noted that word "incorporate" might be misinterpreted and suggested that it be changed to "coordinate and cooperate with". The Committee agreed with this suggestion and L. Kline stated that ASMFC is still developing this document and that change could be suggested to the drafters of the document. Overall, the two MOUs are very similar. The Committee reviewed the FIN MOU. M. Osborn suggested that a list of all the signatories of the MOU be included in the document. **M. Osborn moved to accept the Fisheries Information Network Memorandum of Understanding, upon adoption of any corrections submitted to staff. The motion was seconded and passed unanimously.** It was decided that all comments should be sent to staff no later than Oct. 7, 1995.

Update and Status of Atlantic Coastal Cooperative Statistics Program (ACCSP)

L. Kline stated that the ASMFC Plan Design Team has developed an options paper which describes all options that were discussed at the May workshop. The paper includes topics such as system design, management, confidentiality, enforcement, etc. Once the MOU is signed, the ACCSP Council will be established. This body will be comprised of director-level personnel for the participating agencies and will have the final decision concerning the program. Under the Council, there will be a committee that will report to the Council. Currently, the ASMFC is working on establishing a variety of different groups to address various issues such as data management, public outreach, industry involvement, etc.

Update of Administrative Proposal

R. Lukens stated that the funding for supporting travel for the committee and work groups and various other activities has been received by the GSMFC. The total amount of the funding is $130,000 and the funding cycle runs from July 1 to June 30. Since this may be the first time for some personnel to travel on the authorization under the GSMFC, travel guidelines have been distributed to the Committee for their use.

Time Schedule for Next Meeting

The week of February 26 was selected are the next meeting time. The location of New Orleans, Louisiana, Jacksonville, Florida, Charleston, South Carolina, and Charlotte, North Carolina were suggested as possible meeting sites. The Committee directed the staff to determine the best location for the meeting and contact the members with the selection.

Other Business

D. Donaldson stated that he compiled a list of e-mail addresses for the RecFIN/ComFIN and asked participants to review the information and contact him with any additions or changes. Once everyone gets an e-mail address, information could be sent via the e-mail instead of the regular mail.

There being no further business, the meeting was adjourned at 12:45 p.m.

SOUTHEAST COOPERATIVE STATISTICS COMMITTEE
MINUTES
September 27 - 28, 1995
Miami, Florida

Chairman Joe O'Hop called the meeting to order at 2:05 p.m. The following people were present:

Julie Califf, GDNR, Brunswick, GA
Mary Anne Camp, NMFS, Miami, FL
Page Campbell, TPWD, Rockport, TX
Joe Desfosse, ASMFC, Washington, DC
David Donaldson, GSMFC, Ocean Springs, MS
Albert Jones, NMFS, Miami, FL
Lisa Kline, ASMFC, Washington, D.C.
Tony Lamberte, GMFMC, Tampa, FL
Wilson Laney, FWS, Raleigh, NC
Skip Lazauski, ADCNR, Gulf Shores, AL
Ron Lukens, GSMFC, Ocean Springs, MS
Dee Lupton, NCDMR, Morehead City, NC
Joe Moran, SCDNR, Charleston, SC
Joe O'Hop, FMRI, St. Petersburg, FL
John Poffenberger, NMFS, Miami, FL
Tom Schmidt, NPS, Homestead, FL
Joe Shepard, LDWF, Baton Rouge, LA
Tom Van Devender, MDMR, Biloxi, MS

Adoption of Agenda

The agenda was approved as written.

Approval of Minutes

The minutes from the Cooperative Statistics Program (CSP) meeting held on February 28, 1995 in Jacksonville, Florida were approved as written.

Discussion and Review of Confidentiality Workshop

R. Lukens stated that a copy of the proceedings from the confidentiality workshop has been distributed to the Committee for their review and comment. The document includes various recommendations and suggestions. He suggested that the Committee

review and possibly take some further action on each of the recommendations. The first statement referred to having a uniform statute for data collection. After some discussion, the Committee agreed that it was not necessary to have a uniform statute. The Committee discussed the issue of non-reporting and mandatory reporting and it was suggested that the staff develop a white paper concerning the list of penalties and implications of not reporting catch and landings data. After some discussion, the Committee decided to take no action on the issue. The issue of developing an interstate agreement to address fishermen who have a fisheries-related violation(s) in one state not being able to get a license in another state, was discussed. The Committee decided to inform the GSMFC Law Enforcement Committee about this issue and have them explore the possibilities. The topic of data confidentiality was examined. After a lengthy discussion, **R. Lukens moved to establish as Committee policy that any request for data from one state that originates from another state must be referred back to the state of origin. The motion was seconded and passed unanimously**. Also from this discussion, the Committee decided to develop a policy document which outlines all the policies and procedures of the Southeast Cooperative Statistics Committee. It would be similar to the one being developed by the RecFIN Committee. The issue referring to developing a list of designated personnel identified as the contact for an agency for data transfer or questions regarding sharing of data was discussed. The Committee agreed that the people on the SCSC Committee will be the designated personnel. The last issue was development of a list of certified confidential agents. The list would be distributed to all appropriate state and federal personnel, and updated on a regular basis to assure that new personnel are added and those who quit or are terminated are deleted. After some discussion, **J. Moran moved that state personnel are required to contact Mary Ann Camp of changes in personnel who have access to confidential data. The motion was seconded and passed unanimously**. Also, a review of personnel who have access to confidential data will be conducted at each meeting of the CSP/ComFIN group to ensure that the list is up-to-date. **R. Lukens moved to adopt the proceedings of the workshop,**

as amended, as the official record of the workshop. The motion was seconded and passed unanimously.

Status of TIP Sampling Protocols

J. Poffenberger stated that the Trip Interview Program (TIP) has had established protocols for quite some time. Last year, Phil Goodyear asked if NMFS could implement via changes to existing protocols, a process for selecting vessels or trips to collect biological and size frequency data for various reef fish species. J. Poffenberger asked P. Goodyear if he would need this information again and if so, indicated the need for some type of protocol established to collect this information. Also, the states need to examine their cooperative agreements and determine if additional funds and/or personnel will be necessary to accomplish this task. S. Lazauski said that the states need some clear guidance on what exactly needs to be collected. J. Shepard stated that the TIP should be separated into two parts: bioprofile and trip information. J. Poffenberger stated that there has not be any decision on whether to split TIP into two data bases. Because a variety of data have been placed into the TIP data base, it may be difficult to access the needed data. The Committee discussed the various issues and problems related to TIP. In an effort to address and rectify some of these issues, the Committee discussed the possibility of conducting a TIP workshop in 1996. After some discussion, **J. Shepard moved to direct staff to review the possibility of conducting a workshop regarding TIP. The motion was seconded and passed unanimously.**

Discussion of Net Ban Issue in the Southeast

J. O'Hop stated that it might be interesting to discuss the effects of the Florida net ban on other states in the Southeast Region. S. Lazauski stated Alabama just recently passed a law in which there was a gill net limitation component. The bill stated that a fisherman had to have a gill net license for two out of five years since 1989, and during those years, at least 50% of his/her income must have been derived from commercial

fishing for at least two years. This regulation is intended to remove the part-time fishermen from the roe mullet fishery. This law was the result of a multitude of public hearings among all the different fisheries groups in Alabama. Starting in October 1995, fishermen also must purchase additional permits to participate in the spanish mackerel and roe mullet fishery. D. Lupton stated that an issue similar to the Florida net ban was addressed in North Carolina. The way the issue was presented was very misleading. The bill that was introduced would ban all nets except cast nets in state waters; however, this bill never made it out of the subcommittee. Currently, the State of North Carolina is under a moratorium for all commercial fishing licenses, but that moratorium may be lifted. The North Carolina Marine Fisheries Division is currently looking at the gill net issue and will probably develop different licenses for the different types (part-time, full-time, etc.) of gill netters. J. Moran stated that in 1987, South Carolina passed a law that designated red drum and spotted sea trout as game fish. Also, as part of this law, gill, stop, hoop, and pound nets were outlawed. There was some concern that there would be an increase in illegal gill netting due to the Florida ban but none has been detected. J. Shepard stated that there is a bill currently in the Louisiana legislature, and it is extremely complex. The bill establishes a mullet strike net season (for about 3 months). In addition, a fisherman can catch spotted seatrout with a mullet strike net, but a fishermen needs to qualify for a spotted seatrout permit. During the mullet/seatrout season, a fisherman can also catch restricted species (black drum, sheepshead, and flounder) but the fisherman has to use a pompano strike net, and he/she needs to qualify for a pompano net permit. There is no commercial net fishing at night or on weekends. T. Van Devender stated that the Mississippi legislature passed a law which stated that Mississippi will not sell a license to a person from a state which does not sell a similar license. The Mississippi Commission on Marine Resources became involved in the net ban issue. The Department stated there was no scientific reason for banning gill nets; however, as a compromise, a series of additional regulations on gill netting was passed. It bans commercial net fishing on weekends, holidays, and at night. It also bans commercial net fishing within a certain distance from shore. All of the regulations passed in the Gulf States were probably not in

response to the threat of Florida fishermen moving to other state waters, but as a convenient reason for further personal agendas for certain groups.

Update on NMFS Shrimp Vessel Registration Process

R. Lukens reminded the Committee that this issue is the new shrimp vessel registration process under the Endangered Species Act (ESA), section 7 consultation on sea turtles. According to the rule, all shrimp vessels must be registered. The NMFS conducted a survey of each state concerning their licensing systems, and, following that survey, NMFS discussed the results of the survey with the Gulf and South Atlantic States. Follow-up discussions resulted in Georgia and Alabama expressing an interest in issuing shrimp vessel registration certificates but the rest of the states preferred that the NMFS issue the certificates. The rules for implementing the registration process have been completed and are currently being reviewed by the NMFS. Once this is complete, the rules will be sent out for public comment. Following public review, the program should be operational some time in 1996.

The meeting was recessed at 5:05 p.m.

September 28, 1995

The meeting reconvened at 8:30 a.m.

Work Group Reports

a. Data Collection

J. Poffenberger informed the Committee that a copy of the Data Collection Work Group report has been distributed to the Committee for their comment. The report outlines the minimum data required for fisheries management. These data will be established as the foundation for fishery statistics that need to be collected under any commercial fisheries data collection program. The data elements are separated into four categories:

general fisheries information; stock assessment; economics; and anthropology and sociology. There was some discussion concerning the purpose of developing a list of minimum data elements. It was stated that the list is a starting point for developing a data collection program. It should be used as a reference. The Committee reviewed the document and made several comments and changes. The revised report is attached. During the discussions, it was suggested that the data elements being collected with the state commercial data programs be compared to this list of minimum data elements. The staff will develop a matrix which presents this information and the Committee will discuss this issue at the next meeting. The matrix will help identify the gaps in data collection and will allow the Committee to associate some costs for filling those gaps. J. Poffenberger stated that it is also important to identify what is needed for long-term data collection. **S. Lazauski moved to adopt the Work Group report as amended. J. O'Hop asked that once the matrix is completed, that it be included as an appendix to the report. The motion was seconded and passed unanimously**.

Data Confidentiality Issues

M. Camp stated that all NMFS port agents must sign a non-disclosure form before they can collect data in the field. However, non-federal port agents have not signed non-disclosure forms. Therefore, states which have state port agents must have them sign a non-disclosure form and send the completed forms to M. Camp.

Operations Plan

a. Status of 1995 Activities

D. Donaldson presented the identified tasks for 1995 and their status (Attachment I) which was reviewed by the Committee. All tasks to be completed or started in 1995 have been addressed by the Committee, subcommittees, work groups, and/or staff.

b. Development of 1996 Operations Plan

A draft copy of the 1996 Operations Plan was distributed to the Committee. The Committee completed a thorough review of each task. After some discussion, **J. Shepard moved to accept the 1996 Operations Plan as amended. The motion was seconded and passed unanimously**. The revised 1996 Operations Plan represents the administrative record for this portion of the meeting.

Election of Officers

After some discussion, Joe Shepard was elected Chairman and Joe Moran was elected Vice-Chairman.

Other Business

S. Lazauski asked that staff draft a letter to the NMFS-Miami staff thanking them for use of their facilities and to Susan Gold for her presentation on the IT-95 computer system.

J. Poffenberger reported about the log book program operated by the NMFS. This program includes the following fisheries: swordfish or large pelagic, Gulf of Mexico reef fish, South Atlantic snapper-grouper, shark and wreckfish. The permit-logbook program began in 1986 with the implementation of the swordfish regulations. This program was implemented to provide better statistics on catch per unit effort and catch by area to meet the United States' commitment to the International Commission for the Conservation of Atlantic Tuna. Regulations were promulgated that require each vessel that catches and lands swordfish for sale to have a Federal permit and to submit a logbook for every longline set. In April 1990, a permit-logbook program was initiated for the reef fish fishery in the Gulf of Mexico. Like the swordfish reporting regulations, all fishermen that fish for and sell species in the reef fish management unit are required to have a Gulf reef fish permit. The logbook program for the snapper-grouper fishery in the South Atlantic was implemented in January 1992. In April 1991, an individual transferable quota (ITQ) program was implemented for the wreckfish fishery in the South Atlantic. This program requires that every vessel in this fishery have a Federal permit and comply with the logbook reporting

requirements. The fishery for sharks in the Atlantic Ocean and Gulf of Mexico is the latest fishery to be included in the permit-logbook program. The reporting requirements went into effect in July 1993. As with the other programs, all of the vessels that have Federal permits for this fishery must submit a logbook for each trip when sharks are caught. The permit-logbook program has been implemented to collect detailed and accurate statistics on a certain segment or segments of federally managed fisheries. The permit eligibility requirements include specific income and ownership criteria that are intended to define a commercial fishing vessel and the associated fishing activity. The program is designed to collect fishery statistics on the total amount of catch that is landed and sold by the specifically defined "commercial" fishing sector by species, area, and gear. These data provide the means of determining catch per unit effort by area and gear. In addition to the collection of comprehensive statistics on the commercial fishing activity, the logbook program is also the means of monitoring compliance with the federal reporting requirements. Although the permit-logbook program includes five fisheries, it is managed as a single program. The program is made up of several components: issuing and processing permit applications; logbook forms and processing; and compliance and enforcement. The NMFS Southeast Regional Office is responsible for issuing all federal permits in the region and maintaining the data base that contains the information relating to the vessels and the permit applicants (mailing addresses, active vs non-active status, physical attributes of the vessel, etc). Permits for the five fisheries included in this program are issued in accordance with several requirements or qualifications. First, the applicant must own or operate a vessel that is either documented with the U.S. Coast Guard or registered in a state if the vessel does not meet the USCG qualifications. Second, the applicant must earn at least 50% of their income from commercial fishing or charter boat or headboat operations, or, for the four fisheries excluding the Gulf reef fish, total income from commercial fishing or charter boat, headboat operations must have exceeded $20,000 for a year. If the earned income qualification is made by the operator of the vessel, the permit is only valid as long as the person that qualified is the captain. In addition, permits issued for the four fisheries except the Gulf reef fish are not transferable

to another owner or operator. Because of the diversification of many vessels, the same vessel can fish in more than one of these fisheries. Thus, multiple permits can be (and are) issued to the same vessel; however, a single, unique permit number is maintained for each vessel, regardless of the number of fisheries that are listed on the application. When a vessel is issued a new permit or a permit is renewed, the owner is also notified of the reporting requirements and a logbook or logbooks are sent. The fishing activities for the other fisheries in the program include gear that are not deployed for extended periods of time. Consequently, it is inappropriate to have the catch and effort data reported for every deployment. For these fisheries, a form has been designed to report the data for an entire trip. When the fishermen has completed the appropriate form or forms for a trip, they are instructed to mail the form to the Southeast Fisheries Science Center (SEFSC) in Miami, FL. The logbook forms are reviewed by SEFSC staff for completeness. If some of the information, especially the dates, fishing area and gear, are missing, the form is returned to the fishermen with a letter explaining the deficiencies that need to be corrected. The remaining part of the program is the task of monitoring the submission of logbooks to assure that the reporting requirements are being met.

There being no further business, the meeting was adjourned at 11:15 a.m.

ATTACHMENT I

TASKS FROM THE 1995 OPERATIONS PLAN AND THEIR STATUS

Task 1: Annual Operations Plan, 1996 (Goal 1, Objective 1)

Objective: Develop 1996 Annual Operations Plan, including identification of available resources, that implements the Framework Plan.

Status: The Plan was sent to the Committee in August 1995 and submitted for approval by the Committee at the fall 1995 meeting.

Task 2: Information Dissemination (Goal 1, Objective 5)

Objective: Distribute program information to cooperators and interested parties.

Status: This task is an ongoing activity.

Task 3: Current and Future Data Needs (Goal 2, Objective 1)

Objective: Annually compile a listing of current and future data needs for fisheries management.

Status: The Data Collection Work Group is continuing to work on this activity.

Task 4: Compilation of Licensing Information (Goal 2, Objective 1)

Objective: Compile licensing information for marine commercial fisheries from each state and NMFS in the Region.

Status: The Committee decided to stop any progress on the collection of licensing information until such time that the NMFS completes their activities related to this issue.

Task 5: TIP Sampling Protocols (Goal 2, Objective 2)

Objective: Review and make recommendations on TIP sampling protocols regarding target sampling levels by species.

Status: A progress report will be presented to the Committee at the fall 1995 meeting.

Task 6: Development of List of Necessary Data Elements (Goal 2, Objective 2)

Objective: Review of the Commercially-related Sampling Programs and the Data Elements Description document.

Status: The Data Collection Work Group has developed a list of needed elements. The Work Group will present the list to the Committee at the fall 1995 meeting.

Task 7: Non-reported Sources of Landings (Goal 2, Objective 3)

Objective: Identification of non-reported sources of landings in the Region.
Status: This is an ongoing task.

Task 8: Incorporation of Processed Products Survey (Goal 2, Objective 4)

Objective: Evaluate the incorporation of the processed products survey in the CSP.
Status: The workshop is tentatively set for the spring 1995 meeting. It has been delayed until a date to be determined.

Task 9: Confidentiality Workshop (Goal 2&3, Objective 5)

Objective: Conduct a work session concerning the confidentiality of commercial fisheries data.
Status: The workshop was held during the spring 1995 meeting. Proceeding from the workshop have been produced and will be reviewed at the fall 1995 meeting.

ATTACHMENT I

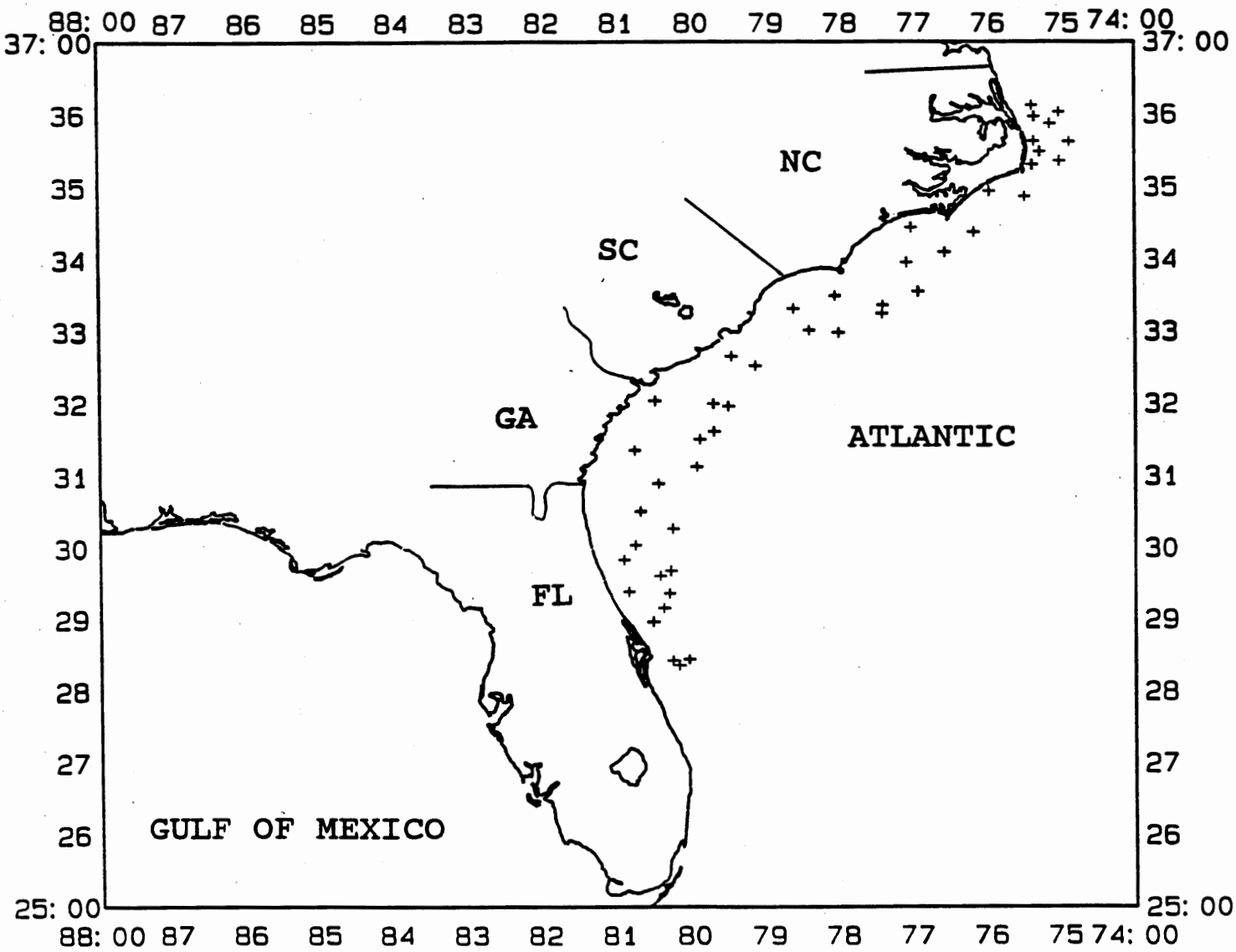
1995 GULF AND ATLANTIC BOTTOM LONGLINE SHARK ASSESSMENT SURVEY

PRESENTATION TO SEAMAP SUBCOMMITTEE

BY PERRY THOMPSON

OCTOBER 23, 1995

Figure 1. Location of sites sampled during the Atlantic Shark Assessment Survey by the NOAA Ship RELENTLESS in depths of 10 to 40 fathoms between Cape Canaveral, FL and Kitty Hawk, NC, cruise 952 August 10-24, 1995.



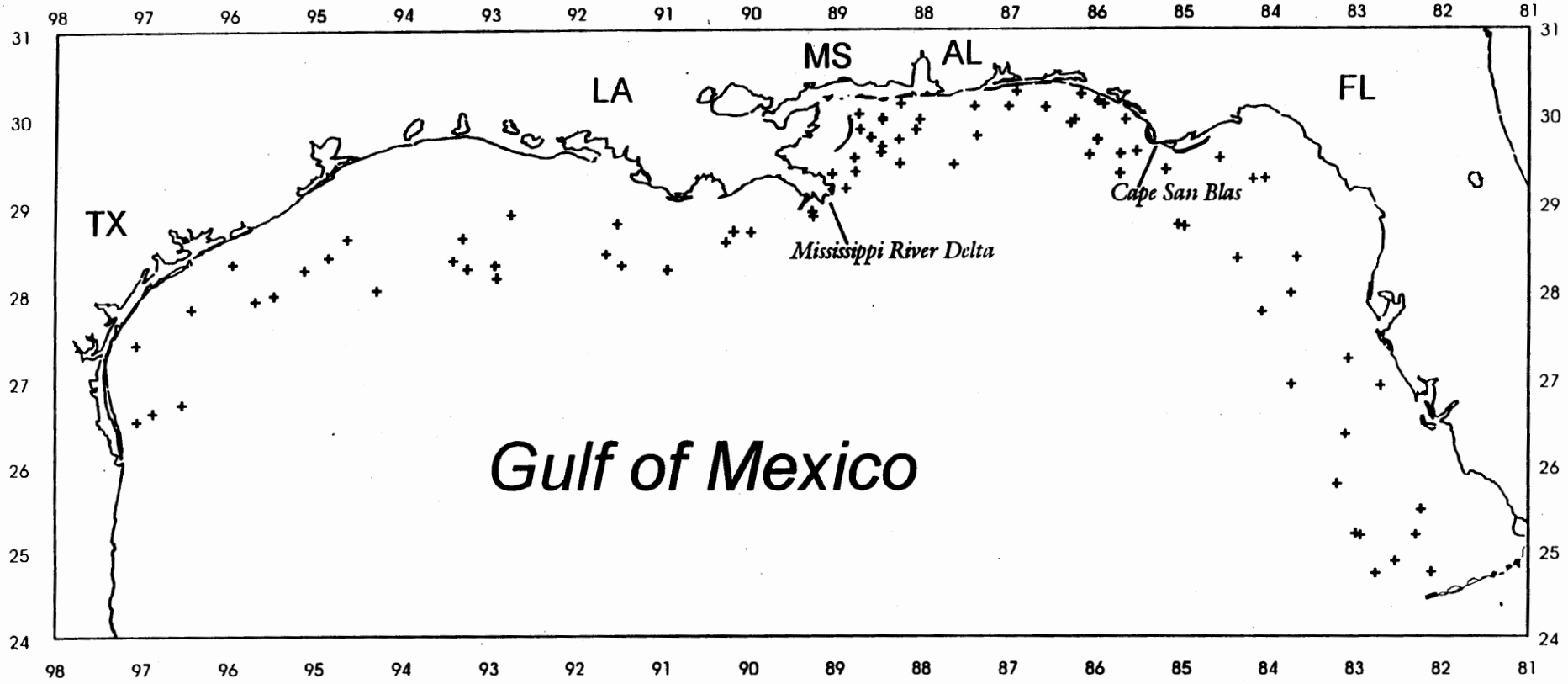


Figure 2. Location of sites sampled during the Gulf of Mexico Shark Assessment Survey by the NOAA Ship OREGON II in depths of 10 to 40 fathoms between Brownsville, TX and the Florida Keys, FL, Cruise 218 July 23 to August 17, 1995.

Table 1. Number and Catch Per Unit Effort (CPUE)/set of sharks collected duing 1995 Gulf of Mexico and Atlantic bottom longline Shark Aassessment Survey.

SPECIES	ATLANTIC		GULF OF MEXICO	
	NUMBER	CPUE	NUMBER	CPUE
Atlantic Sharpnose Rhizoprionodon terraenovae	109	2.422	150	1.829
Tiger Galeocerdo cuvieri	50	1.111	17	0.207
SandBar Carcharhinus plumbeus	15	0.333	16	0.195
Blacktip Carcharhinus limbatus	0	-	26	0.317
Blacknose Carcharhinus acronotus	0	-	17	0.207
Scalloped Hammerhead Sphyrna lewini	3	0.067	8	0.098
Great Hammerhead Sphyrna mokarran	4	0.089	5	0.061
Smooth Dogfish Mustelus canis	0	-	8	0.098
Bull Carcharhinus leucas	0	-	7	0.085
Silky Carcharhinus falciformis	0	-	6	0.073
Nurse Ginglymostoma cirratum	4	0.089	2	0.024
Spinner Carcharhinus brevipinna	0	-	6	0.073
Finetooth Carcharhinus isodon	0	-	4	0.049
Sand Tiger Odontaspis taurus	1	0.022	0	-
Dusky Carcharhinus obscurus	1	0.022	0	-
TOTAL SPECIES	187	4.156	272	3.290
NUMBER OF SETS	45	-	82	-
NUMBER OF HOOKS SET	4492	-	8200	-

Figure 3. Number of Atlantic Sharpnose captured during the Atlantic Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Cape Canaveral, FL to Kitty Hawk, NC, August 10-24, 1995.

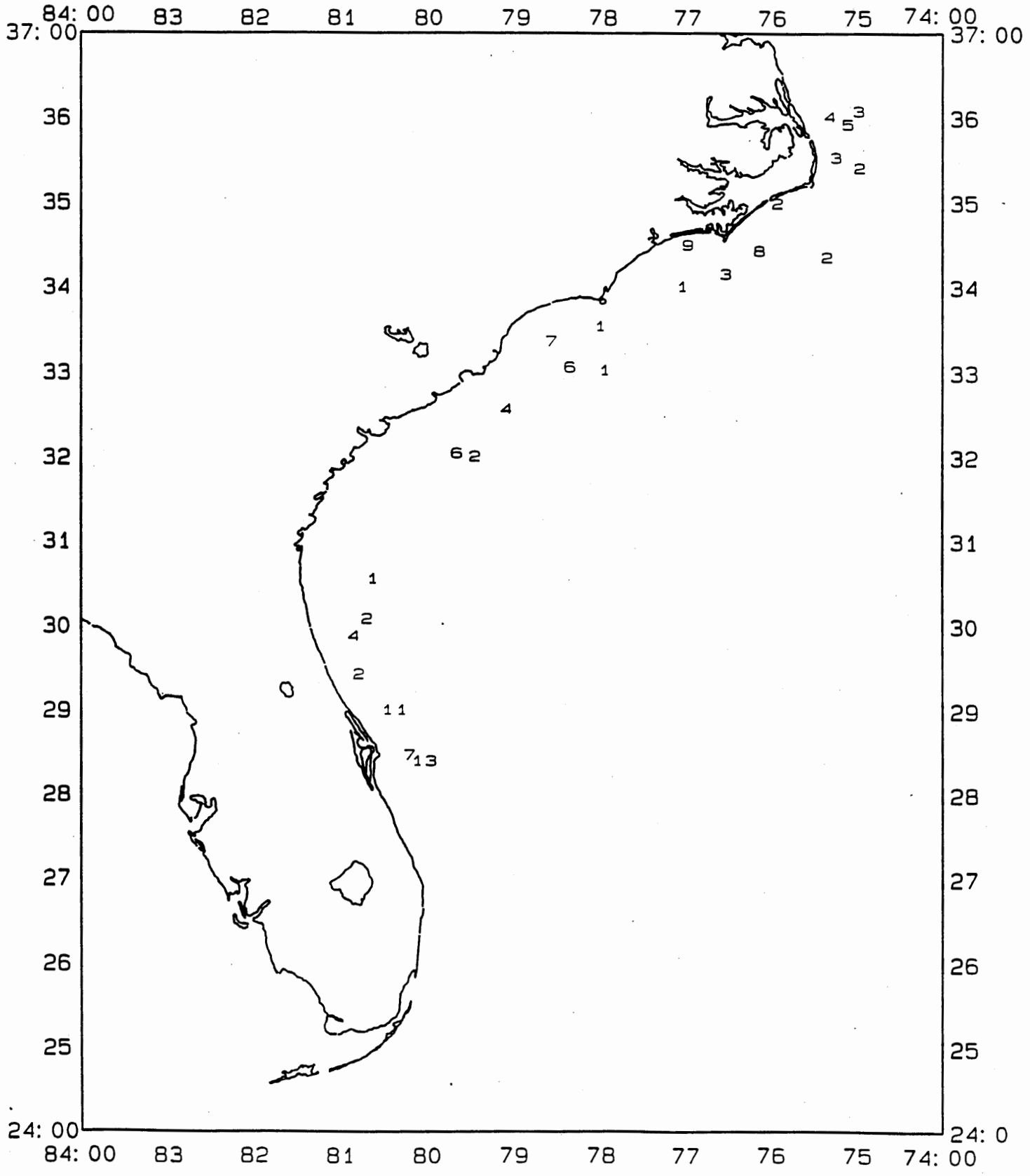
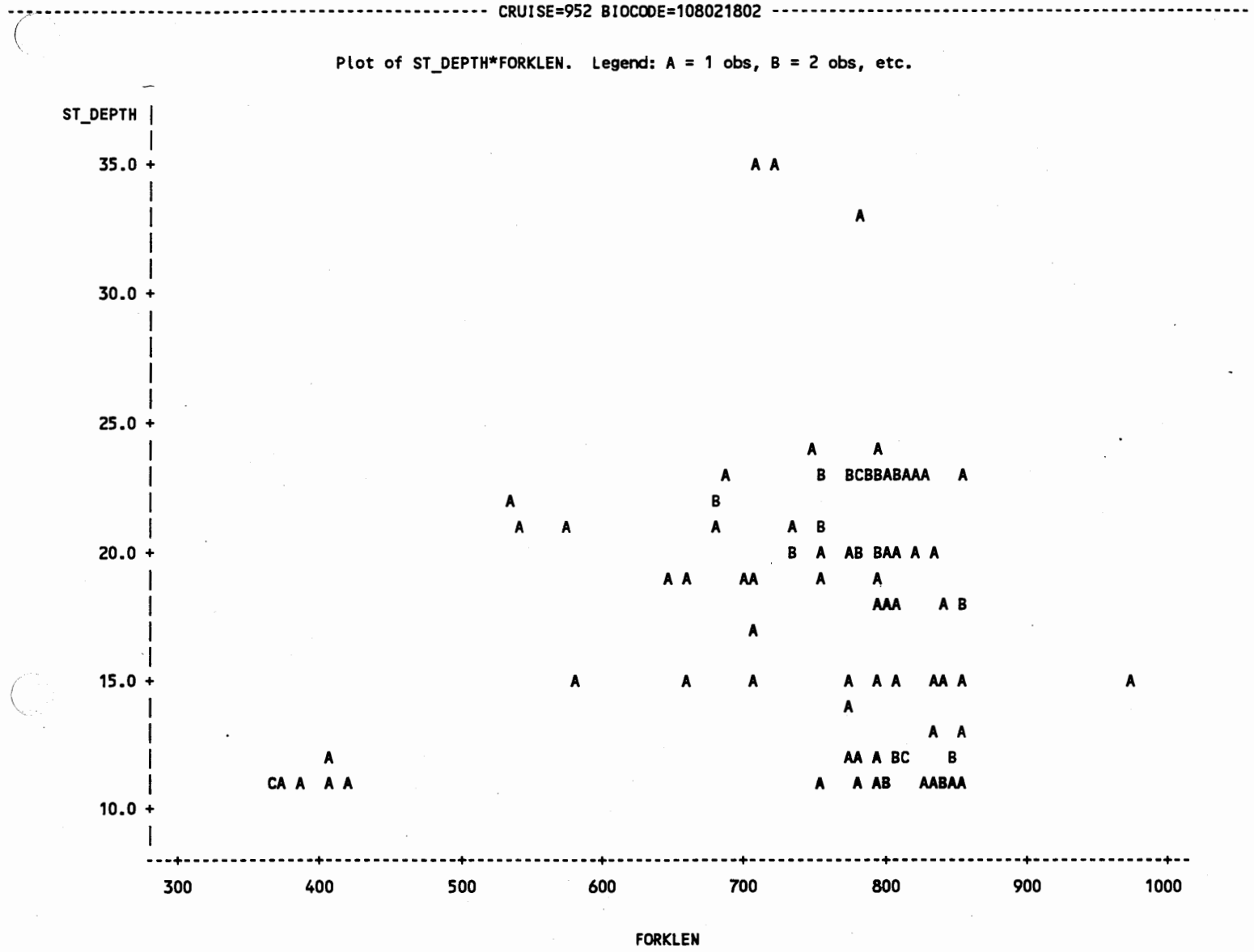


Figure 4. Atlantic Sharpnose shark length distribution by depth for those captured during the Atlantic Shark Assessment Survey.



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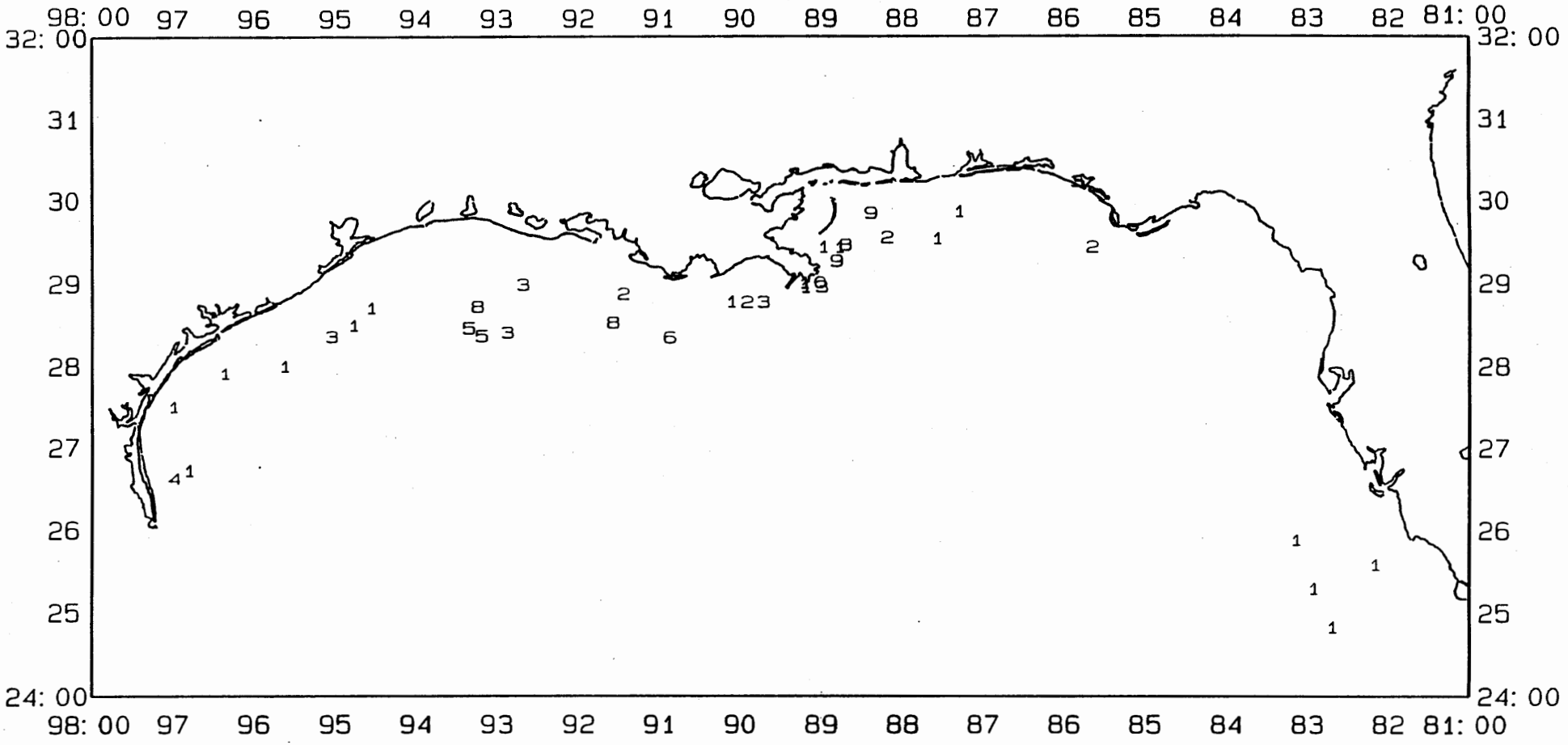
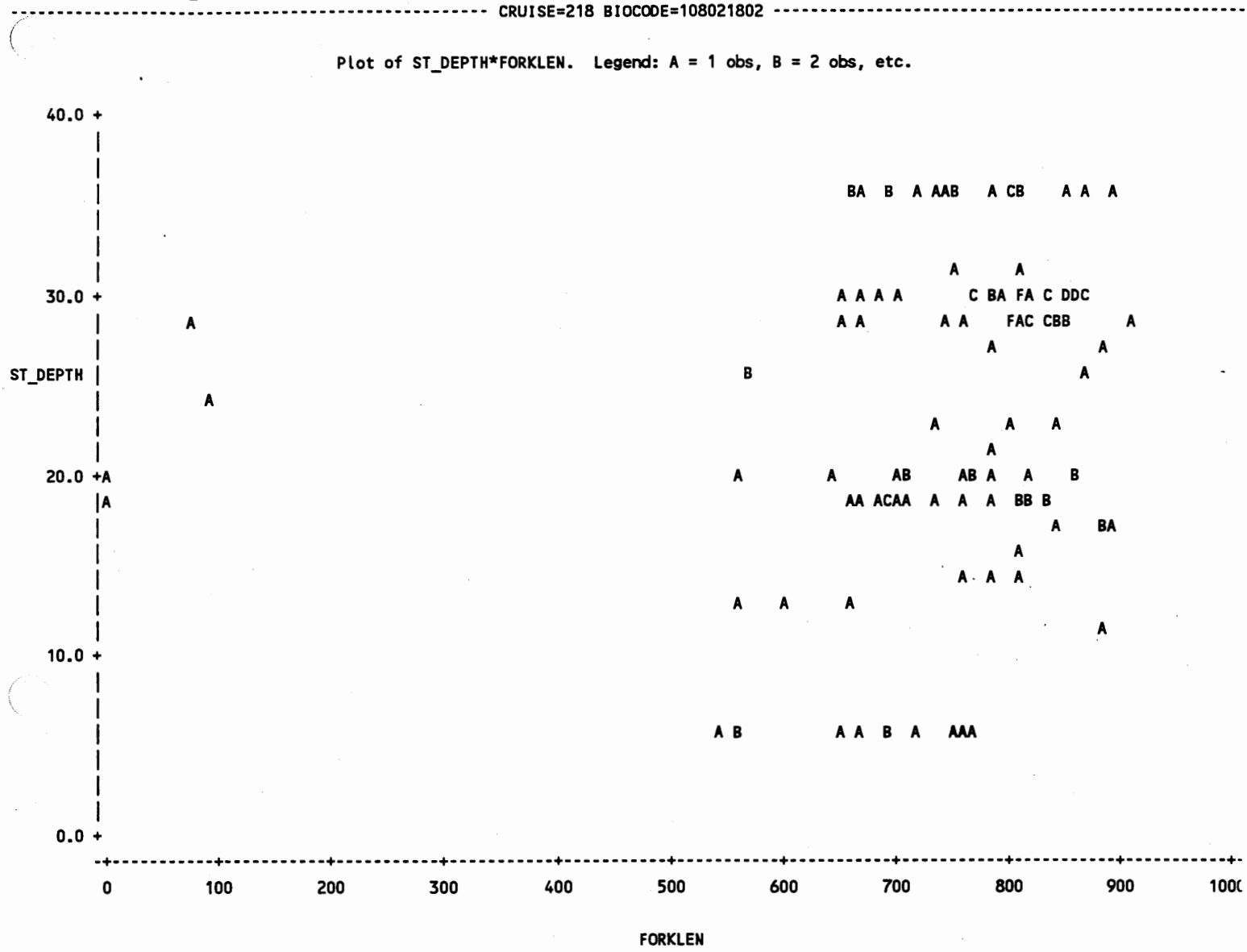


Figure 5. Number of Atlantic Sharpnose captured during the Gulf of Mexico Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Brownsville, TX to the Florida Keys, July 23 to August 17, 1995.

Figure 6. Atlantic Sharpnose shark length distribution by depth for those captured during the Gulf of Mexico Shark Assessment Survey.



NOTE: 11 obs had missing values.

Figure 7. Number of Tiger sharks captured during the Atlantic Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Cape Canaveral, FL to Kitty Hawk, NC, August 10-24, 1995.

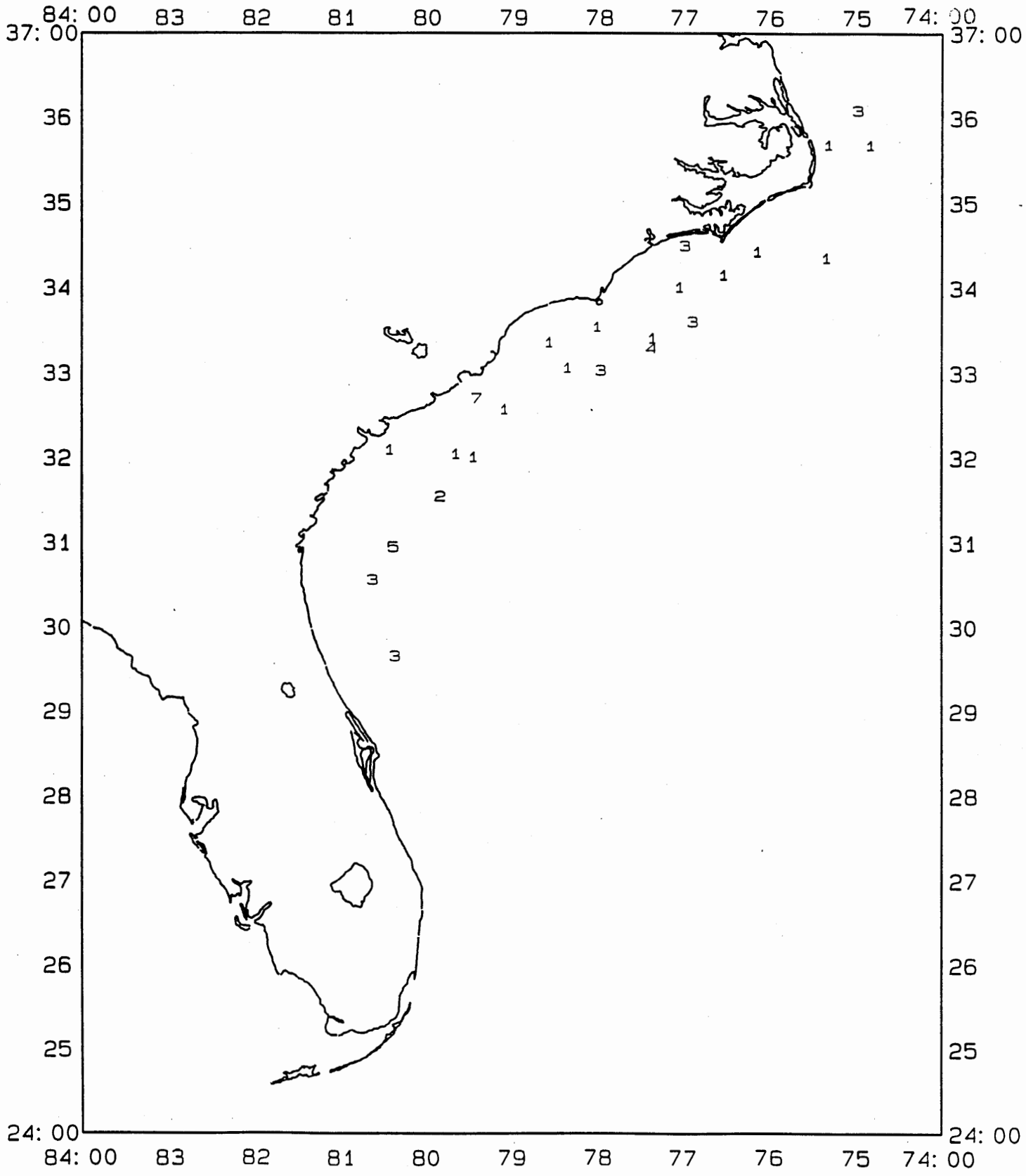
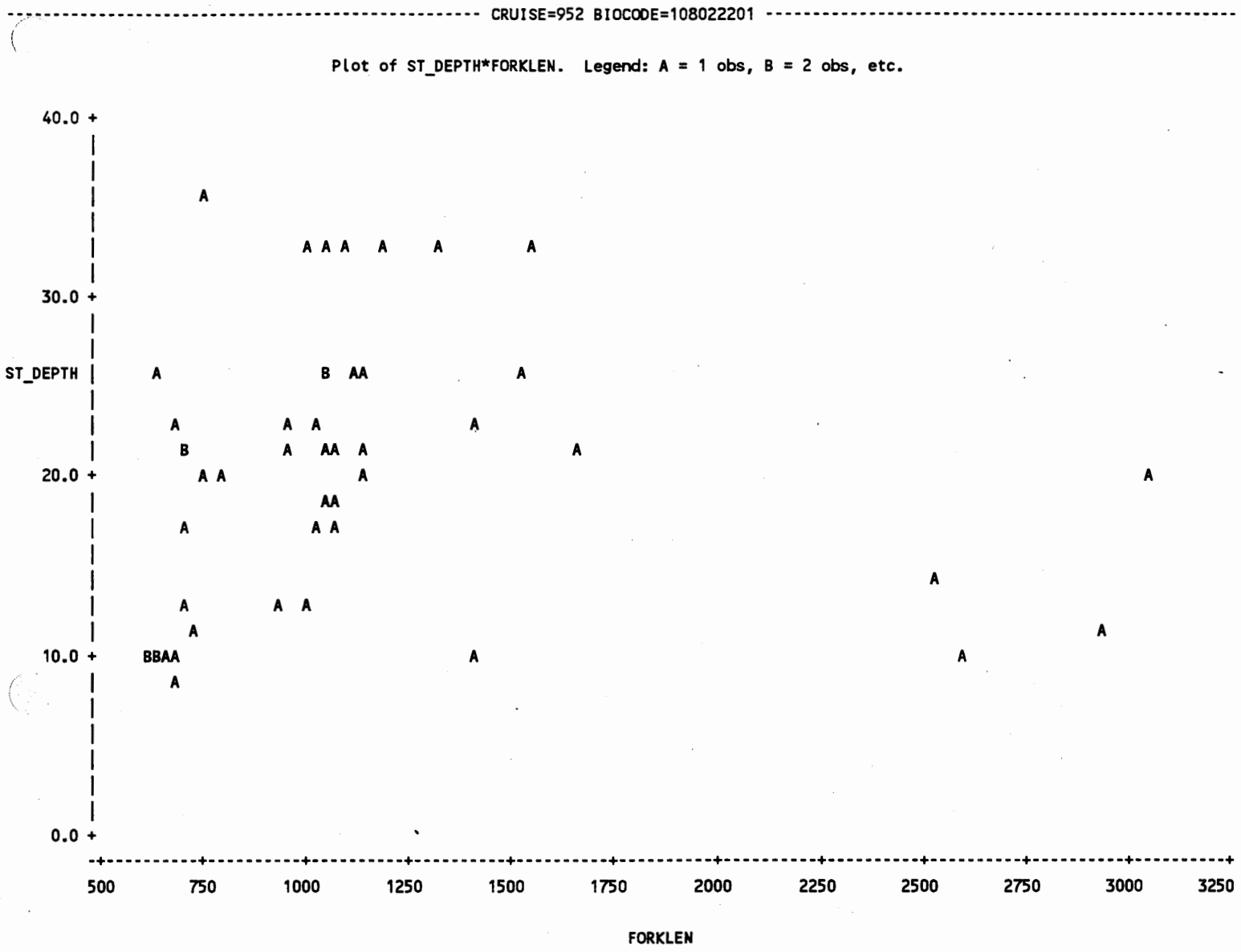


Figure 8. Tiger shark length distribution by depth for those captured during the Atlantic Shark Assessment Survey.



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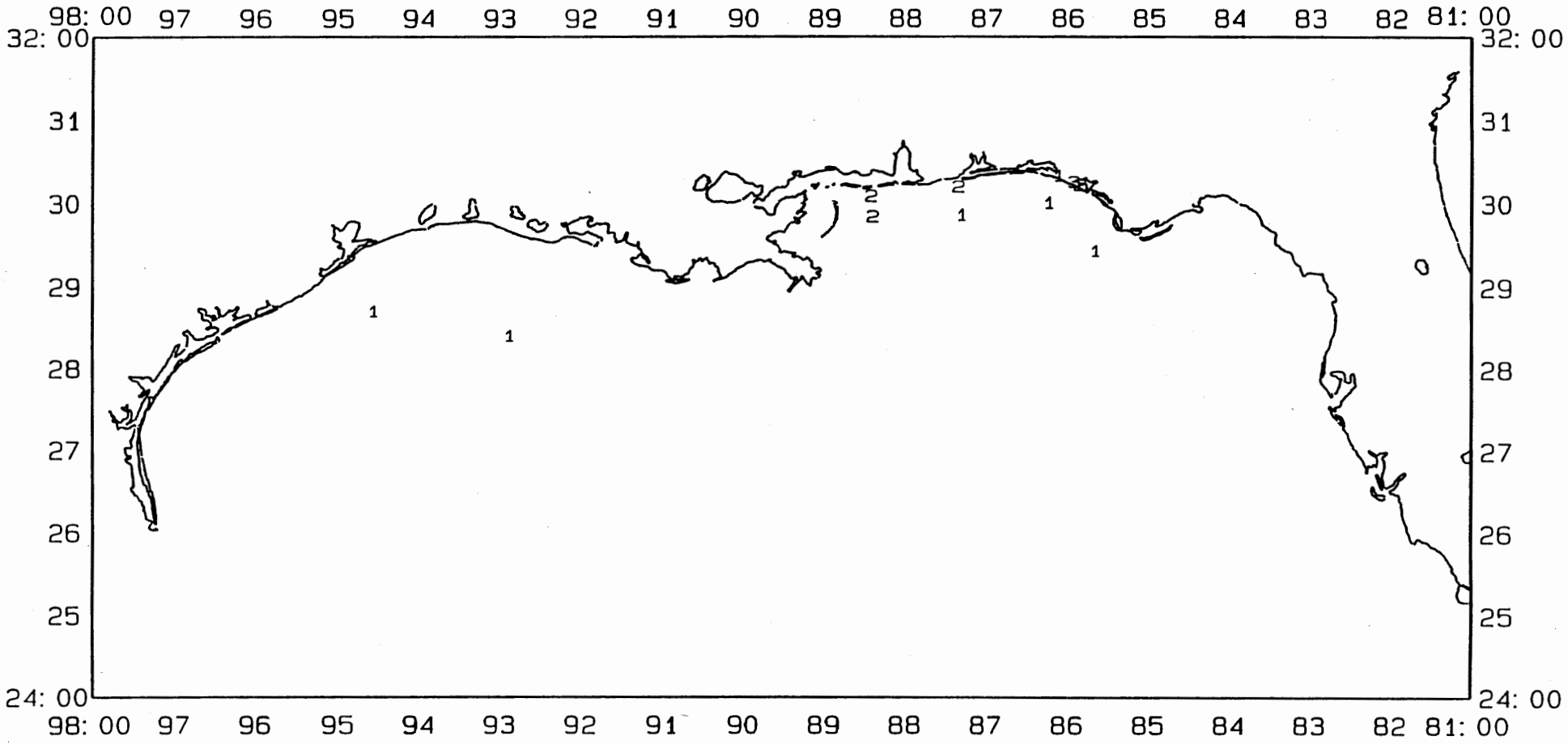


Figure 9. Number of Tiger sharks captured during the Gulf of Mexico Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Brownsville, TX to the Florida Keys, July 23 to August 17, 1995.

Figure 10. Tiger shark length distribution by depth for those captured during the Gulf of Mexico Shark Assessment Survey.

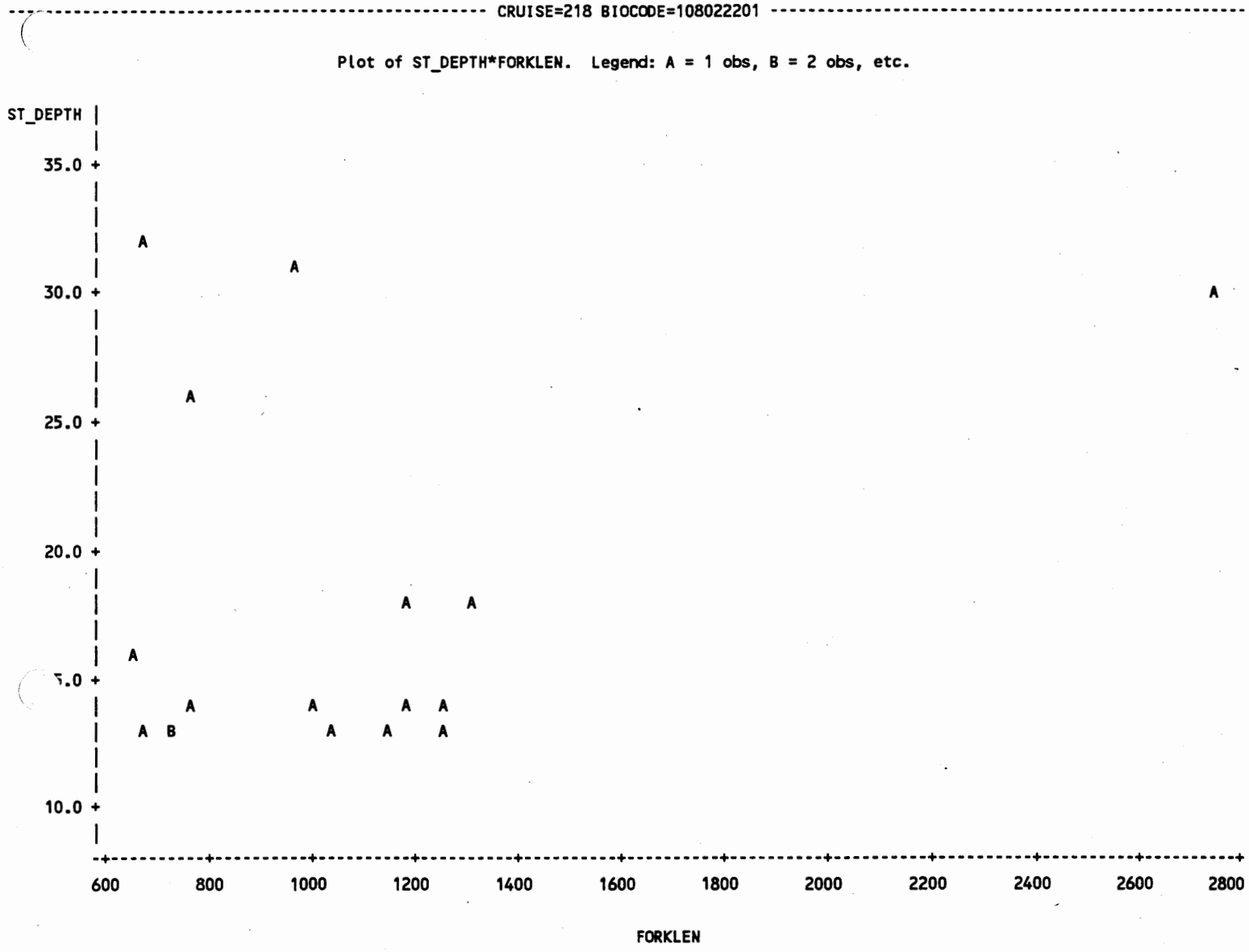


Figure 11. Number of Sandbar sharks captured during the Atlantic Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Cape Canaveral, FL to Kitty Hawk, NC, August 10-24, 1995.

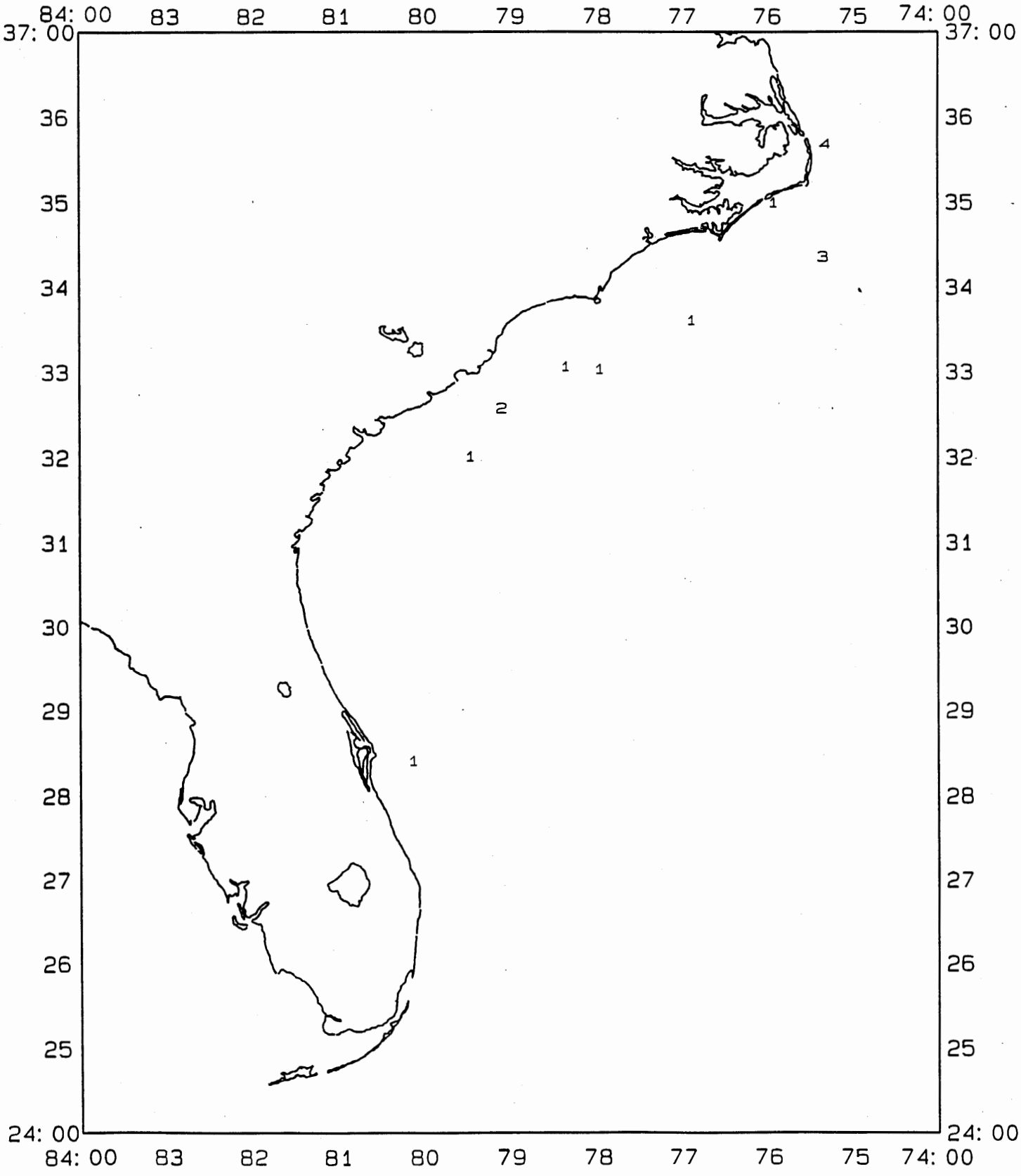
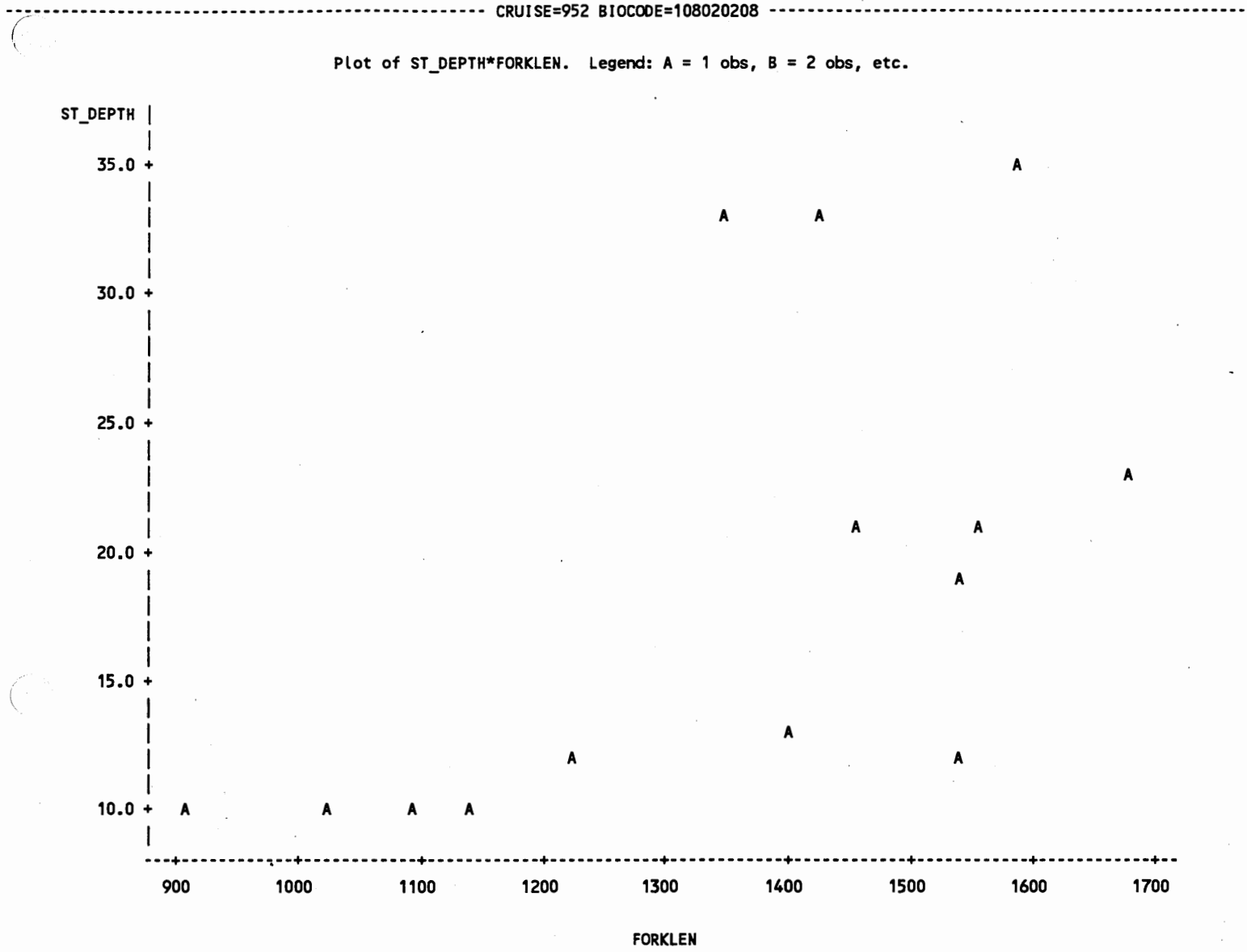


Figure 12. Sandbar shark length distribution by depth for those captured during the Atlantic Shark Assessment Survey.



NOTE: 1 obs had missing values.

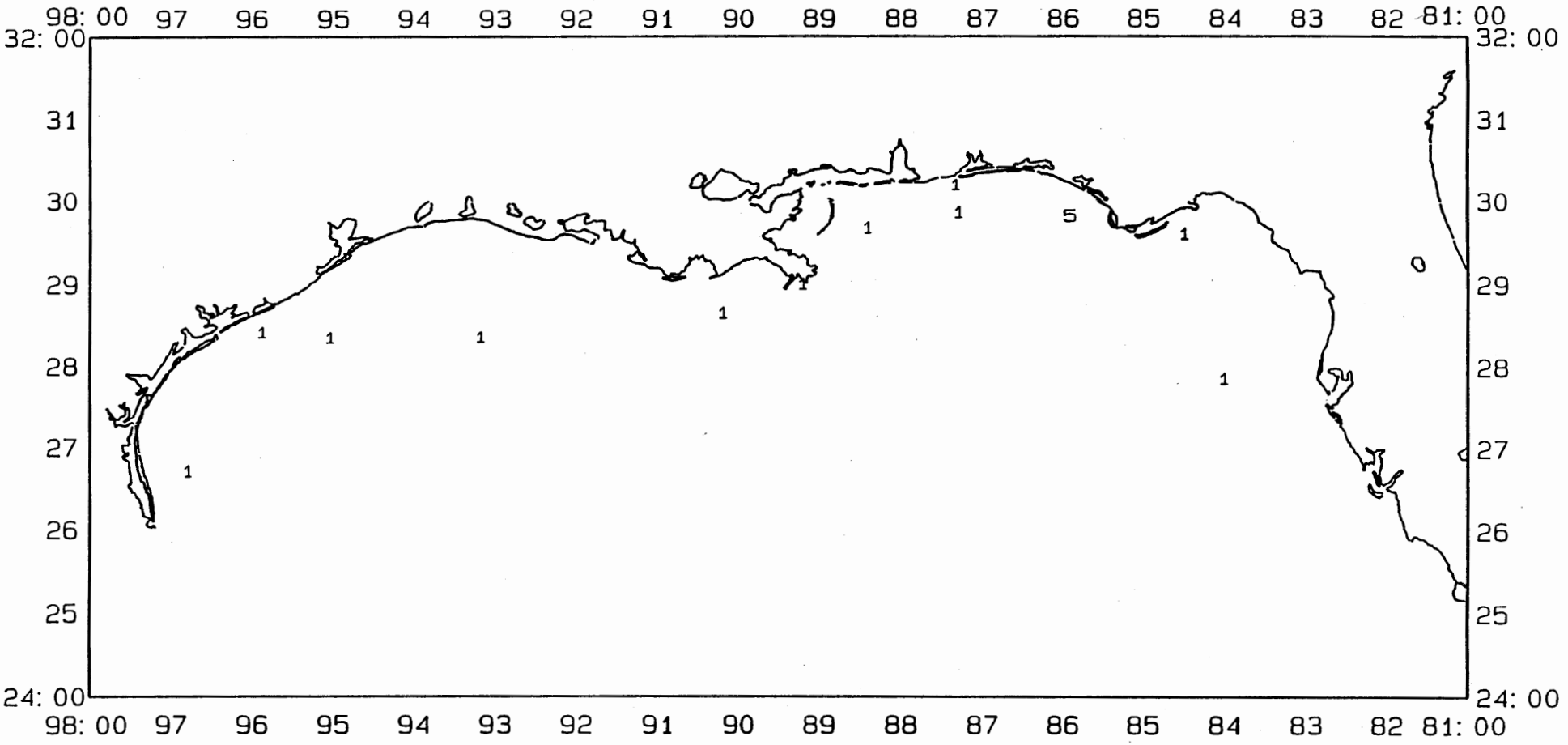
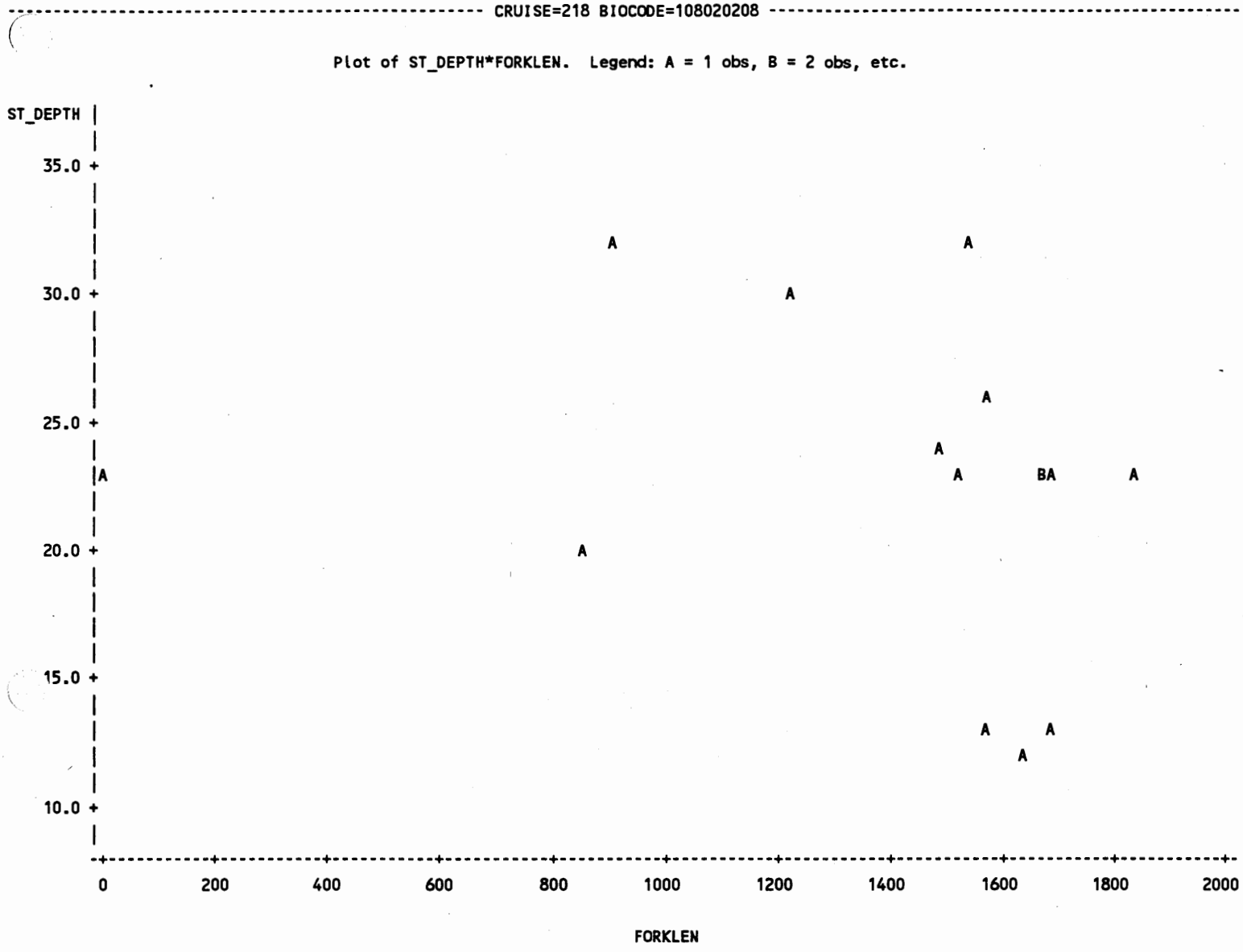


Figure 13. Number of Sandbar sharks captured during the Gulf of Mexico Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Brownsville, TX to the Florida Keys, July 23 to August 17, 1995.

Figure 14. Sandbar shark length distribution by depth for those captured during the Gulf of Mexico Shark Assessment Survey.



NOTE: 1 obs had missing values.

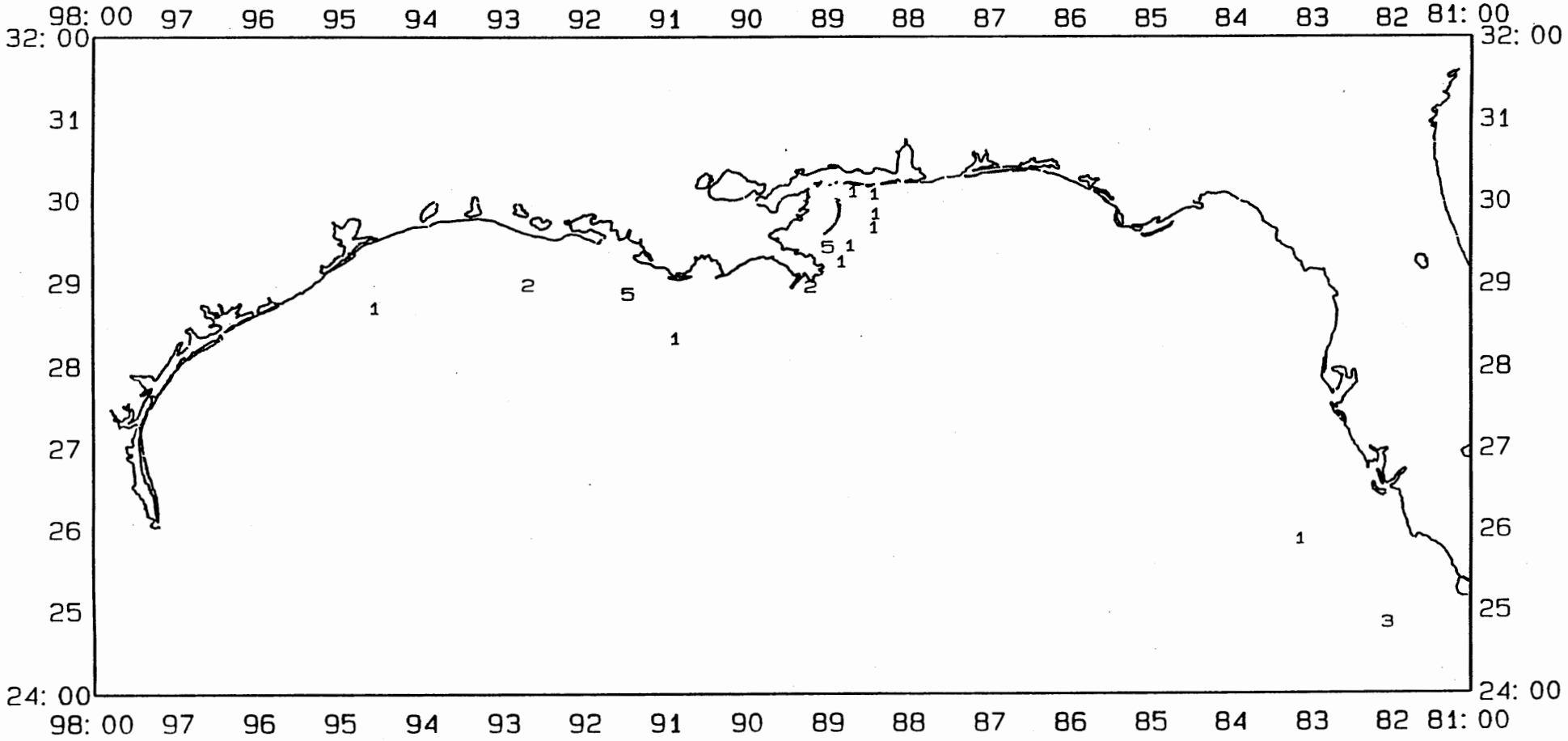
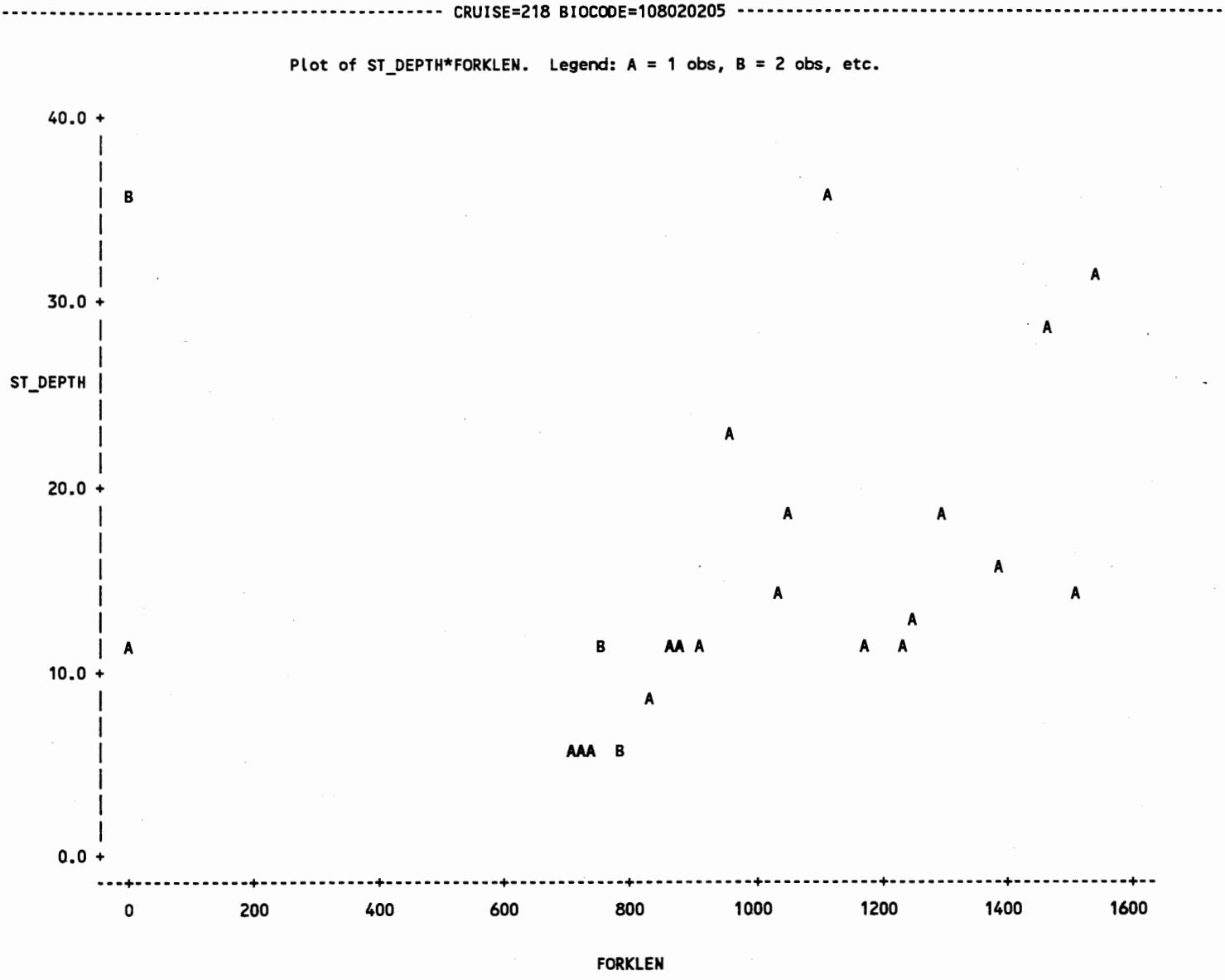


Figure 15. Number of Blacktip sharks captured during the Gulf of Mexico Shark Assessment bottom longline survey between depths of 10 and 40 fathoms from Brownsville, TX to the Florida Keys, July 23 to August 17, 1995.

Figure 16. Blacktip shark length distribution by depth for those captured during the Gulf of Mexico Shark Assessment Survey.



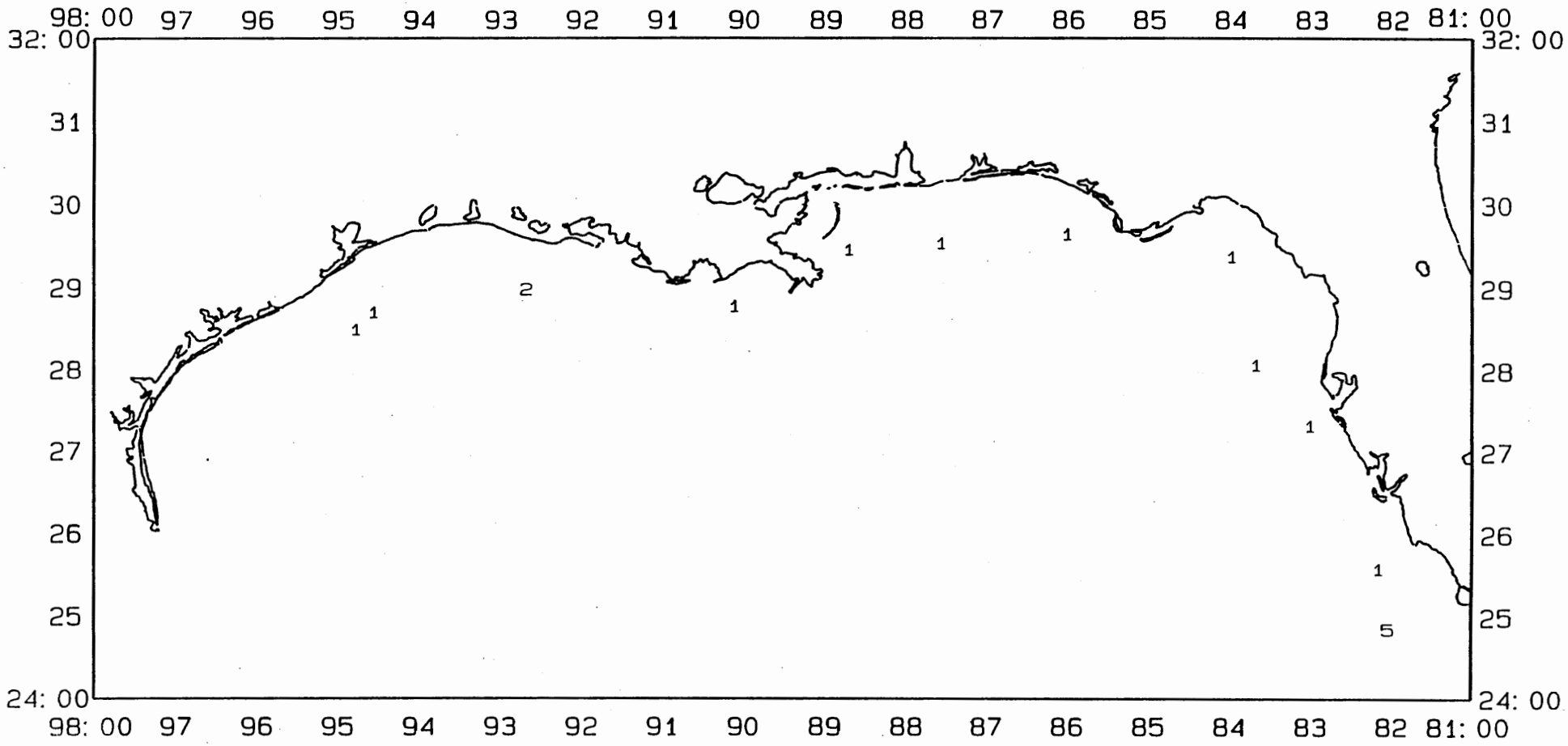
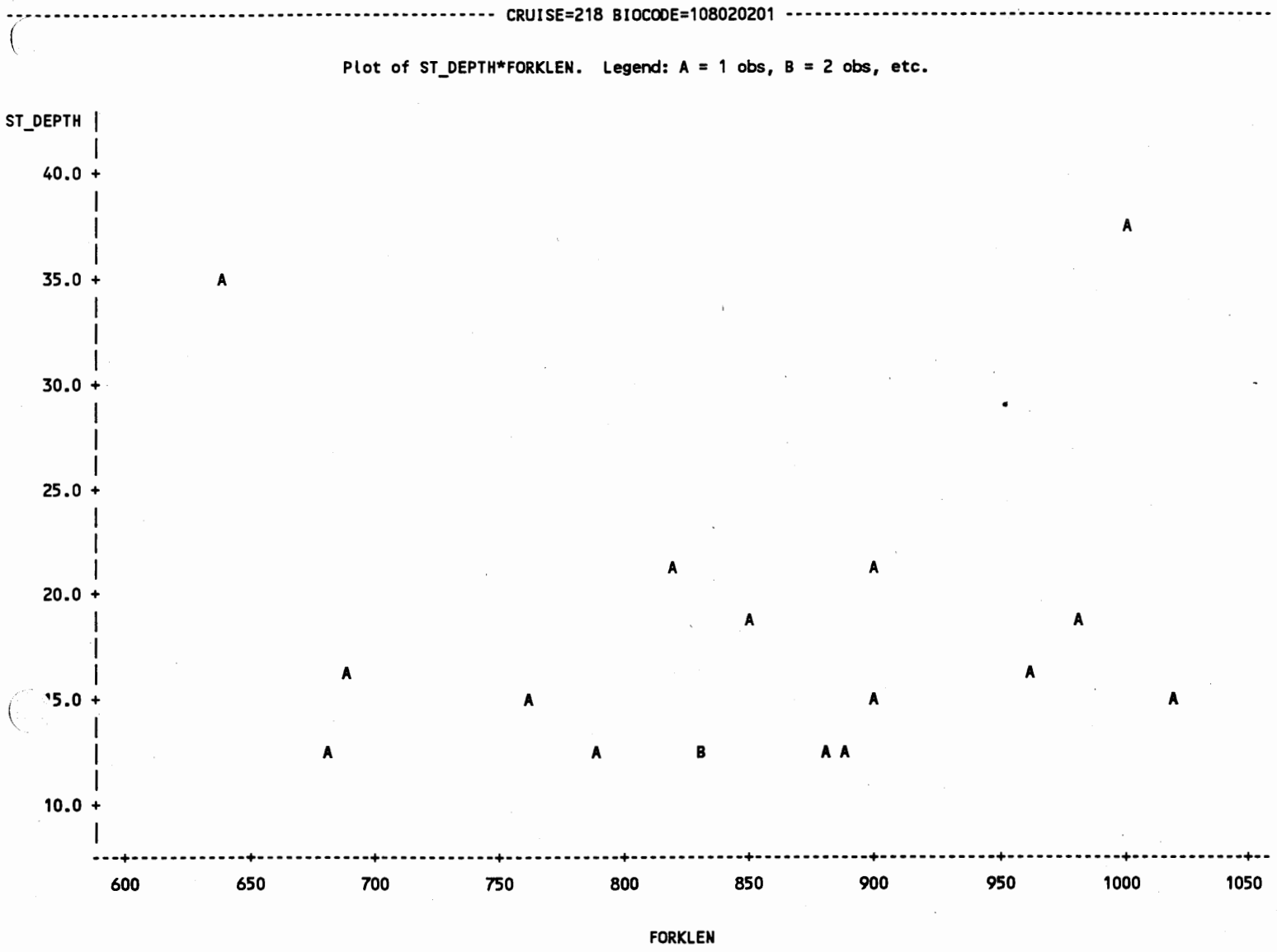


Figure 17. Number of Blacknose sharks captured during the Gulf of Mexico Shark Assessment bottom longline survey in depths of 10 and 40 fathoms between Brownsville, TX and the Florida Keys, July 23 to August 17, 1995.

Figure 18. Blacknose shark length distribution by depth for those captured during the Gulf of Mexico Shark Assessment Survey.



NOTE: 1 obs had missing values.

ATTACHMENT II

October 20, 1995

SEAMAP DATA MANAGEMENT

A. Data Processing Status

Status reports for the 1982 through 1995 SEAMAP data are shown in Attachments 1-10. All cruise data in the SEAMAP on-line data base have been reformatted to SEAMAP versions 3.0, 3.1, or 3.2. Data processing of 1995 data and 1991-1994 Caribbean data is in progress. Reprocessing of some of the 1982-1988 Gulf data is also being performed.

B. Gulf Atlas Processing

Processing of the 1993 SEAMAP Atlas is approximately 50% complete.

C. Data Requests

One hundred and sixty-five SEAMAP requests have been received to date. One hundred and sixty-three have been completed and work is being done on the remaining requests. Twenty requests were filled since October 1994.

D. Software/System Progress

An update to version 3.2 of the SEAMAP Data Management system is currently being prepared and will be sent out to all field sites.

Work has been initiated to re-engineering the main frame SEAMAP software in order to take advantage of the ORACLE data base software on the NMFS SGI system in Miami.

E. On-line Data Base Status

Status of the SEAMAP data as of October 17, 1994 is shown in Attachment 11. The SEAMAP on-line data base had 240 cruises with a total of 1,630,216 records (approximately 63 megabytes of data). Since October 1994, nineteen cruises have been reprocessed from the NMFS data base through version 3.1/3.2, forty-two new cruises were processed through 3.1/3.2, and the species/length data from four ichthyoplankton cruises were processed. Data from all sixty-five cruises were added

to the on-line data base as shown in Attachment 12. The SEAMAP on-line data base now contains 301 cruises with a total of 2,054,520 records (approximately 80 megabytes of data).

Kenneth Savastano

Kenneth Savastano
Data Manager

Attachment 1

06-Oct-95

SEAMAP 1982

DATA SOURCE	VESSEL	CRUISE		STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	821	CRUISE 821	3	13	11	86	11	*1	*1	*1	*1	*1	*1	*1	*1	121	3.0	17-Jun-94
TOTAL					13	11	86	11									121		

06-Oct-95

SEAMAP 1983

DATA SOURCE	VESSEL	CRUISE		STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	831	CRUISE 831	3	18	18	217	18	*1	*1	*1	*1	*1	*1	*1	*1	271	3.0	27-Jun-94
TOTAL					18	18	217	18									271		

06-Oct-95

SEAMAP 1984

DATA SOURCE	VESSEL	CRUISE		STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	841	CRUISE 841	3	10	10	120	10	613	*1	*1	*1	*1	*1	*1	*1	763	3.0	27-Jun-94
MS	17	841	SUMMER SEAMAP	3	24	24	357	24	*1	6	165	*1	*1	*1	*1	*1	600	3.2	17-Aug-95
MS	17	842	ICHTHYOPLANKTON SURVEY	3	10	*1	*1	*1	*1	*1	*1	*1	10	30			40	3.1	25-Jul-95
TOTAL					44	34	477	34	613	6	165		10	30			1403		

06-Oct-95

SEAMAP 1985

DATA SOURCE	VESSEL	CRUISE		STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	851	SUMMER SEAMAP	3	20	18	286	20	*1	5	68	*1	2	4			421	3.0	22-Oct-93
AL	23	852	FALL SEAMAP	3	11	11	226	10	237	6	22	*1	*1	*1	*1	*1	523	3.0	22-Oct-93
MS	17	851	SUMMER SEAMAP	3	36	31	754	31	*1	27	474	*1	5	15			1368	3.1	23-Feb-95
MS	17	852	FALL SEAMAP	3	60	40	893	40	1839	*1	*1	*1	20	60			2932	3.1	05-May-95
MS	17	853	WINTER SEAMAP	3	42	40	960	42	2752	40	1327	*1	2	6			5209	3.1	13-Jun-95
MS	17	854	FALL SEAMAP	3	16	15	290	15	785	*1	*1	*1	5	15			1136	3.1	19-May-95
US	4	156	FALL SEAMAP	3	411	407	9261	322	19609	188	5261	*1	2	5			35464	3.2	15-Sep-95
TOTAL					596	562	12670	480	25222	266	7152		36	105			47053		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 2
06-Oct-95

SEAMAP 1986

DATA SOURCE	VESSEL	CRUISE		INVENTORY STATUS	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	861	SUMMER SEAMAP	3	13	12	210	13	*1	11	76	*1	1	3			338	3.0	13-Oct-9
AL	23	862	FALL SEAMAP	3	16	*1	*1	16	*1	*1	*1	*1	16	32			64	3.0	28-Oct-9
AL	23	863	FALL SEAMAP	3	6	6	123	6	44	*1	*1	*1	*1	*1	*1	*1	185	3.0	13-Oct-9
MS	17	861	BUTTERFISH	3	51	38	817	15	*1	*1	*1	*1	16	46			967	3.1	14-Sep-9
MS	17	862	SUMMER SEAMAP	3	20	14	378	18	833	12	233	*1	6	18			1526	3.1	11-Jan-9
MS	17	863	SUMMER SEAMAP	3	14	14	412	12	624	13	165	*1	*1	*1	*1	*1	1254	3.1	17-Jan-9
MS	17	864	FALL ICHTHYOPLANKTON	3	9	*1	*1	9	*1	*1	*1	*1	9	27			45	3.1	17-Jan-9
MS	17	865	FALL SEAMAP	3	18	18	327	18	*1	*1	*1	*1	*1	*1	*1	*1	381	3.1	11-Jan-9
SC	51	861	FALL SEAMAP	3	68	68	1641	68	16326	*1	*1	*1	*1	*1	*1	*1	18171	2.02	03-Feb-9
SC	51	862	WINTER SEAMAP	3	44	22	532	44	2683	*1	*1	*1	*1	*1	*1	*1	3325	2.02	03-Feb-9
SC	51	863	FALL SEAMAP	3	70	70	1792	70	9865	*1	*1	*1	*1	*1	*1	*1	11867	2.02	03-Feb-9
US	4	160	SUMMER SHRIMP/GROUNDFISH	3	214	165	4114	159	4885	128	4574	*1	43	129			14368	3.1	05-Dec-9
US	4	161	FALL ICHTHYOPLANKTON	3	128	*1	*1	119	*1	*1	*1	*1	91	273			520	3.0	04-Mar-9
US	4	163	FALL SHRIMP/GROUNDFISH	3	306	305	6025	300	19008	*1	*1	*1	64	192			26136	3.1	26-Oct-9
TOTAL					977	732	16371	867	54268	164	5048		246	720			79147		

06-Oct-95

SEAMAP 1987

DATA SOURCE	VESSEL	CRUISE		INVENTORY STATUS	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	871	SUMMER SEAMAP	3	1	1	31	*1	*1	*1	*1	*1	*1	*1	*1	*1	33	3.0	26-Jul-93
AL	23	872	SUMMER SEAMAP	3	12	12	124	12	*1	3	4	*1	*1	*1	*1	*1	167	3.0	08-Oct-93
AL	23	873	FALL ICHTHYOPLANKTON	3	10	*1	*1	10	*1	*1	*1	*1	10	10			30	3.0	08-Oct-93
AL	23	874	FALL SEAMAP	3	5	5	42	*1	*1	*1	*1	*1	*1	*1	*1	*1	52	3.0	08-Sep-93
AL	23	875	FALL SEAMAP	3	8	8	45	8	*1	*1	*1	*1	*1	*1	*1	*1	69	3.0	08-Oct-93
MS	17	871	BUTTERFISH CRUISE	3	53	53	1349	*1	4310	*1	*1	*1	*1	*1	*1	*1	5765	3.0	04-Aug-93
MS	17	872	SUMMER SEAMAP	3	76	68	1979	70	3827	41	807	*1	8	24			6892	3.0	06-Dec-93
MS	17	873	FALL ICHTHYOPLANKTON	3	19	*1	*1	19	*1	*1	*1	*1	19	42			80	3.0	09-Jul-93
MS	17	874	FALL SEAMAP	3	22	18	488	18	593	*1	*1	*1	4	9			1148	3.0	16-Jul-93
SC	51	871	SPRING SEAMAP	3	52	52	2065	52	7455	*1	*1	*1	*1	*1	*1	*1	9676	2.02	15-Jan-93
SC	51	872	SUMMER SEAMAP	3	52	52	2018	52	6919	*1	*1	*1	*1	*1	*1	*1	9093	2.02	19-Jan-93
SC	51	873	FALL SEAMAP	3	52	52	1811	52	4847	*1	*1	*1	*1	*1	*1	*1	6814	2.02	15-Jan-93
SC	51	874	FALL SEAMAP	3	54	54	2213	54	5269	*1	*1	*1	*1	*1	*1	*1	7644	2.02	15-Jan-93
SC	51	875	WINTER SEAMAP	3	52	52	2075	52	5455	*1	*1	*1	*1	*1	*1	*1	7686	2.02	19-Jan-93
US	4	167	SEAMAP SUMMER SHRIMP/GROUNDFISH	3	509	463	9063	240	58315	308	7008	*1	44	131			76037	3.0	10-Nov-94
US	4	169	FALL ICHTHYOPLANKTON	3	91	*1	*1	91	*1	*1	*1	*1	91	273			455	3.0	18-Feb-94
US	4	171	SEAMAP FALL SHRIMP/GROUNDFISH	3	359	350	7968	163	35358	*1	*1	*1	24	72			44270	3.0	06-May-94
TOTAL					1427	1240	31271	893	132348	352	7819		200	561			175911		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 3

06-Oct-95

SEAMAP 1988

DATA SOURCE	VESSEL	CRUISE		INVENTORY STATUS	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	881	SUMMER SEAMAP	3	7	7	136	7	288	2	7	*1	*1	*1	*1	*1	454	2.02	17-May-93
AL	23	882	SUMMER SEAMAP	3	4	4	43	4	85	*1	*1	*1	*1	*1	*1	*1	140	2.02	17-May-93
AL	23	883	RED DRUM/KING MACKEREL	3	10	*1	*1	10	*1	*1	*1	*1	10	10			30	2.02	17-May-93
FL	36	881	SPRING ICHTHYOPLANKTON	3	17	*1	*1	17	*1	*1	*1	*1	17	47			81	2.0	16-Nov-92
FL	36	882	FALL ICHTHYOPLANKTON	3	36	*1	*1	36	*1	*1	*1	*1	36	107			179	2.0	16-Nov-92
LA	35	881	SPRING SEAMAP	3	24	24	563	24	7323	*1	*1	*1	11	26			7984	3.1	12-Oct-94
LA	35	882	SUMMER SEAMAP	3	24	24	571	24	7888	19	328	*1	12	36			8914	3.1	17-Jan-95
LA	35	884	FALL SEAMAP	3	20	20	489	20	5255	18	278	*1	10	27			6127	3.1	19-Jun-95
MS	17	881	SUMMER SEAMAP	3	47	41	926	47	6200	24	525	*1	6	17			7827	3.0	01-Jul-93
MS	17	882	FALL ICHTHYOPLANKTON	3	33	*1	*1	33	*1	*1	*1	*1	33	82			148	2.02	04-Jun-93
MS	17	883	FALL SEAMAP	3	26	23	644	26	4377	*1	*1	*1	3	9			5105	3.0	01-Jul-93
SC	51	881	SPRING SEAMAP	3	52	52	1593	32	4096	*1	*1	*1	*1	*1	*1	*1	5825	2.02	20-Nov-92
SC	51	882	SUMMER SEAMAP	3	52	52	1839	50	5518	*1	*1	*1	*1	*1	*1	*1	7511	2.02	01-Dec-92
SC	51	883	SUMMER SEAMAP	3	52	52	2063	44	9235	*1	*1	*1	*1	*1	*1	*1	11446	2.02	02-Dec-92
SC	51	884	SUMMER SEAMAP	3	52	52	1988	52	7234	*1	*1	*1	*1	*1	*1	*1	9378	2.02	20-Nov-92
SC	51	885	FALL SEAMAP	3	52	52	2347	52	8807	*1	*1	*1	*1	*1	*1	*1	11310	2.02	20-Nov-92
SC	51	886	FALL SEAMAP	3	52	52	2190	52	7501	*1	*1	*1	*1	*1	*1	*1	9847	2.02	01-Dec-92
SC	51	887	FALL SEAMAP	3	52	52	2223	52	6533	*1	*1	*1	*1	*1	*1	*1	8912	2.02	26-Nov-92
SC	51	888	FALL SEAMAP	3	52	52	2351	42	7552	*1	*1	*1	*1	*1	*1	*1	10049	2.02	02-Dec-92
TX	31	881	SUMMER SEAMAP	3	16	16	344	16	1706	13	442	*1	*1	*1	*1	*1	2553	2.02	04-Aug-93
TX	31	882	FALL SEAMAP	3	16	16	76	16	160	*1	*1	*1	*1	*1	*1	*1	284	2.02	05-Aug-93
TX	32	881	SUMMER SEAMAP	3	16	16	299	16	1312	14	290	*1	*1	*1	*1	*1	1963	2.02	04-Aug-93
TX	32	882	FALL SEAMAP	3	16	16	225	16	969	*1	*1	*1	*1	*1	*1	*1	1242	2.02	05-Aug-93
TX	33	881	SUMMER SEAMAP	3	16	16	117	16	330	5	13	*1	*1	*1	*1	*1	513	2.02	04-Aug-93
TX	33	882	FALL SEAMAP	3	16	16	247	16	1003	*1	*1	*1	*1	*1	*1	*1	1298	2.02	05-Aug-93
TX	34	881	SUMMER SEAMAP	3	16	16	144	16	664	10	43	*1	*1	*1	*1	*1	909	2.02	04-Aug-93
TX	34	882	FALL SEAMAP	3	16	16	210	16	920	*1	*1	*1	*1	*1	*1	*1	1178	2.02	05-Aug-93
TX	40	881	SUMMER SEAMAP	3	16	16	239	16	905	16	249	*1	*1	*1	*1	*1	1457	2.02	04-Aug-93
TX	40	882	FALL SEAMAP	3	16	16	131	16	461	*1	*1	*1	*1	*1	*1	*1	640	2.02	05-Aug-93
US	4	172	STRIPED BASS SURVEY	3	571	374	327	82	*1	*1	*1	*1	176	*2			1354	3.0	20-Jan-94
US	4	173	SPRING ICHTHYOPLANKTON SURVEY	3	165	*1	*1	165	*1	*1	*1	*1	143	290	1569	2348	4537	3.0	20-Sep-95
US	4	174	SEAMAP SHRIMP/GROUNDFISH	3	408	387	7465	192	40083	220	4850	5	19	57	.		53667	3.0	11-Dec-93
US	4	176	FALL ICHTHYOPLANKTON SURVEY	3	168	*1	*1	82	*1	*1	*1	*1	166	159	1464	3126	4999	3.1	26-Aug-94
US	4	177	SEAMAP FALL SHRIMP/GROUNDFISH	3	598	595	12342	210	54937	*1	*1	98	39	117			68897	3.0	02-Dec-93
TOTAL					2734	2075	42132	1515	191342	341	7025	103	681	984	3033	5474	256758		

STATUS CODES:

*1 NOT TAKEN
*2 NOT ENTERED
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 4

06-Oct-95

SEAMAP 1989

DATA SOURCE	VESSEL	CRUISE	CRUISE REPORT TITLE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	891	SEAMAP CRUISE AL 891	3	7	7	103	7	363	3	96	*1	*1	*1	*1	*1	586	2.0	19-Mar-92
AL	23	892	SEAMAP CRUISE AL 892	3	10	10	205	10	991	7	166	*1	*1	*1	*1	*1	1399	2.0	19-Mar-92
AL	23	893	RED DRUM-KING MACKEREL CRUISE	3	10	*1	*1	10	*1	*1	*1	*1	10	10			30	2.0	19-Mar-92
AL	23	894	SEAMAP FALL GROUNDFISH CRUISE	3	12	12	293	12	1452	11	164	*1	*1	*1	*1	*1	1956	2.0	19-Mar-92
FL	36	891	SPRING 1989 ICHTHYOPLANKTON	3	25	*1	*1	25	*1	*1	*1	*1	25	75			125	2.0	22-Jul-92
FL	36	892	FALL 1989 ICHTHYOPLANKTON	3	36	*1	*1	36	*1	*1	*1	*1	36	108			180	2.0	22-Jul-92
LA	35	891	LA 1989 SPRING SEAMAP	3	24	24	614	24	7914	21	140	*1	8	21			8782	2.0	28-Jul-92
LA	35	892	LA 1989 SUMMER SEAMAP	3	22	22	439	22	3984	17	292	*1	12	36			4834	2.0	28-Jul-92
LA	25	893	LA 1989 AREA SUMMER SEAMAP	3	21	21	163	21	1106	11	118	*1	21	24			1485	2.0	28-Jul-92
LA	35	894	LA 1989 FALL SEAMAP	3	24	24	572	24	4390	24	499	*1	12	36			5593	2.0	28-Jul-92
LA	25	895	LA 1989 AREA FALL SEAMAP	3	21	21	228	21	1943	11	224	*1	21	42			2511	2.0	28-Jul-92
LA	35	896	LA OREGON 2 PELICAN COMPARISON	3	10	10	286	10	2719	9	185	*1	*1	*1	*1	*1	3229	2.0	28-Jul-92
LA	35	897	LA 1989 WINTER SEAMAP	3	16	16	493	16	3635	16	567	*1	7	21			4780	2.0	28-Jul-92
MS	17	891	SUMMER SHRIMP/GROUNDFISH SVY	3	41	34	989	41	7581	20	261	*1	7	21			8988	2.0	31-Oct-91
MS	17	892	FALL ICHTHYOPLANKTON SURVEY	3	65	*1	*1	65	*1	*1	*1	*1	65	75			205	2.0	30-Oct-91
MS	17	893	FALL SHRIMP/GROUNDFISH SURVEY	3	20	17	568	20	4631	*1	*1	*1	3	9			5265	2.0	01-Nov-91
SC	51	891	SUMMER 89 SOUTH ATLANTIC	3	212	212	7690	212	12944	179	2299	*1	*1	*1	*1	*1	23748	2.0	08-Jul-92
SC	51	892	SUMMER 89 SOUTH ATLANTIC	3	106	106	2693	106	5930	48	808	*1	*1	*1	*1	*1	9797	2.0	08-Jul-92
SC	51	893	FALL SEAMAP 89 SOUTH ATLANTIC	3	212	212	5753	212	9372	116	1902	*1	*1	*1	*1	*1	17779	2.0	08-Jul-92
TX	31	891	CRUISE 891 GULF OF MEXICO	3	16	16	174	16	575	9	115	*1	*1	*1	*1	*1	921	2.0	18-May-92
TX	32	891	CRUISE 891 GULF OF MEXICO	3	16	16	323	16	1991	13	709	*1	*1	*1	*1	*1	3084	2.0	18-May-92
TX	33	891	CRUISE 891 GULF OF MEXICO	3	16	16	354	16	1965	16	546	*1	*1	*1	*1	*1	2929	2.0	18-May-92
TX	34	891	CRUISE 891 GULF OF MEXICO	3	16	16	268	16	1481	16	651	*1	*1	*1	*1	*1	2464	2.0	18-May-92
TX	40	891	CRUISE 891 GULF OF MEXICO	3	16	16	205	16	1035	15	382	*1	*1	*1	*1	*1	1685	2.0	18-May-92
TX	31	892	TX CRUISE 892	3	16	16	199	16	582	*1	*1	*1	*1	*1	*1	*1	829	2.0	18-May-92
TX	32	892	TX CRUISE 892	3	16	16	307	16	1826	*1	*1	*1	*1	*1	*1	*1	2181	2.0	18-May-92
TX	33	892	TX CRUISE 892	3	16	16	312	16	1421	*1	*1	*1	*1	*1	*1	*1	1781	2.0	18-May-92
TX	34	892	TX CRUISE 892	3	16	16	204	16	1112	*1	*1	*1	*1	*1	*1	*1	1364	2.0	18-May-92
TX	40	892	TX CRUISE 892	3	16	16	263	16	1462	*1	*1	*1	*1	*1	*1	*1	1773	2.0	18-May-92
US	4	179	SA-SEAMAP/BEAUFORT ECOSYSTEM	3	571	438	847	37	2176	*1	*1	*1					4069	2.0	05-Nov-92
US	4	180	OREGON II SUMMER SEAMAP	3	244	237	4178	172	26040	140	4815	*1	21	63			35889	2.0	21-Oct-92
US	4	183	SEAMAP ICHTHYOPLANKTON/PLUME	3	114	*1	*1	113	*1	*1	*1	*1	77	150	1855	4205	6437	2.02	02-Nov-92
US	4	184	SEAMAP SHRIMP/GROUNDFISH	3	512	490	11997	229	66970	*1	*1	6	39	117			80321	2.0	06-Oct-92
US	49	892	SEAMAP ICHTHYOPLANKTON/THERMAL	3	141	*1	*1	131	*1	*1	*1	*1	125	212			484	2.0	15-Dec-92
TOTAL					2636	2073	40720	1736	177591	702	14939	6	489	1020	1855	4205	247483		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 5

06-Oct-95

SEAMAP 1990

DATA SOURCE	VESSEL	CRUISE	CRUISE REPORT TITLE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	901	SPRING SHRIMP GROUNDFISH SURVEY	3	14	14	159	14	684	5	74	*1	*1	*1	*1	*1	964	2.0	26-Mar-92
AL	23	902	AL JULY SHRIMP-GROUNDFISH	3	1	1	15	1	36	1	3	*1	*1	*1	*1	*1	58	2.0	26-Mar-92
AL	23	903	FALL KING MACKEREL/REDDRUM/PLAN	3	10	*1	*1	10	*1	*1	*1	*1	10	10			30	2.0	26-Mar-92
AL	23	904	FALL SHRIMP GROUNDFISH	3	13	13	203	9	775	*1	*1	*1	*1	*1	*1	*1	1013	2.0	26-Mar-92
FL	36	901	SPRING 1990 ICHTHYOPLANKTON	3	21	*1	*1	21	*1	*1	*1	*1	21	61			103	2.0	22-Jul-92
FL	36	902	FALL 1990 ICHTHYOPLANKTON	3	30	*1	*1	30	*1	*1	*1	*1	30	90			150	2.0	22-Jul-92
LA	35	901	LA WINTER SEAMAP	3	24	18	457	23	3581	15	128	*1	6	15			4261	2.0	28-Jul-92
LA	35	902	LA SUMMER SEAMAP	3	31	24	444	31	3151	15	171	*1	7	21			3888	2.0	28-Jul-92
LA	25	903	LA AREA SEAMAP CRUISE 903	3	21	21	142	21	1436	9	202	*1	21	42			1894	2.0	28-Jul-92
LA	35	904	LA FALL SEAMAP	3	31	24	381	25	2954	18	174	*1	7	20			3627	2.0	28-Jul-92
LA	25	905	LA FALL SEAMAP	3	21	21	125	21	833	7	121	*1	21	42			1191	2.0	28-Jul-92
LA	35	906	LA WINTER SEAMAP	3	25	21	554	24	5978	20	952	*1	4	12			7586	2.0	28-Jul-92
MS	17	901	SUMMER SHRIMP/GROUNDFISH	3	44	40	1086	44	8868	10	395	*1	4	12			10499	2.0	01-Nov-91
MS	17	902	FALL SHRIMP/GROUNDFISH SURVEY	3	107	*1	*1	107	*1	*1	*1	*1	107	113	32	91	450	2.0	10-May-94
MS	17	903	FALL SHRIMP/GROUNDFISH SURVEY	3	24	24	727	20	4470	*1	*1	*1	*1	*1	*1	*1	5265	2.0	01-Nov-91
SC	51	901	SPRING SEAMAP SURVEY SOUTH ATL	3	210	210	4529	208	15747	60	702	*1	*1	*1	*1	*1	21666	2.0	08-Jul-92
SC	51	902	SUMMER SEAMAP S. ATLANTIC 90	3	156	156	4552	156	14060	91	1432	*1	*1	*1	*1	*1	20603	2.0	08-Jul-92
SC	51	903	FALL SEAMAP SURVEY SOUTH ATL	3	182	182	6041	182	12663	128	2884	*1	*1	*1	*1	*1	22262	2.0	08-Jul-92
TX	31	901	SUMMER SHRIMP/GROUNDFISH	3	16	16	128	16	456	9	69	*1	*1	*1	*1	*1	710	2.0	27-Mar-92
TX	32	901	SUMMER SHRIMP/GROUNDFISH	3	16	16	267	16	1569	11	431	*1	*1	*1	*1	*1	2326	2.0	27-Mar-92
TX	33	901	SUMMER SHRIMP/GROUNDFISH	3	16	16	289	16	1605	14	205	*1	*1	*1	*1	*1	2161	2.0	27-Mar-92
TX	34	901	SUMMER SHRIMP/GROUNDFISH	3	16	16	125	16	606	5	101	*1	*1	*1	*1	*1	885	2.0	27-Mar-92
TX	40	901	SUMMER SHRIMP/GROUNDFISH	3	16	16	120	16	786	7	218	*1	*1	*1	*1	*1	1179	2.0	27-Mar-92
TX	31	902	SHRIMP/GROUNDFISH SURVEY	3	16	16	127	16	288	*1	*1	*1	*1	*1	*1	*1	463	2.0	30-Mar-92
TX	32	902	SHRIMP/GROUNDFISH SURVEY	3	16	16	244	16	894	*1	*1	*1	*1	*1	*1	*1	1186	2.0	30-Mar-92
TX	33	902	SHRIMP/GROUNDFISH SURVEY	3	16	16	146	16	497	*1	*1	*1	*1	*1	*1	*1	691	2.0	30-Mar-92
TX	34	902	SHRIMP/GROUNDFISH SURVEY	3	16	16	99	16	496	*1	*1	*1	*1	*1	*1	*1	643	2.0	30-Mar-92
TX	40	902	SHRIMP/GROUNDFISH SURVEY	3	16	16	197	16	872	*1	*1	*1	*1	*1	*1	*1	1117	2.0	30-Mar-92
US	4	187	SEAMAP ICHTHYOPLANKTON	3	151	*1	*1	139	*1	*1	*1	*1	139	408			698	2.0	07-Jan-92
US	4	189	SPRING SHRIMP/GROUNDFISH	3	290	267	5620	230	34308	219	6083	*1	19	57			47074	2.0	27-Sep-91
US	4	190	PLANKTON SURVEY GULF OF MEXICO	3	133	*1	*1	131	*1	*1	*1	*1	108	320			584	2.0	20-Sep-91
US	4	191	SEAMAP/GROUNDFISH SURVEY GOM	3	293	290	6725	218	39457	*1	*1	2	39	117			47102	2.0	23-Sep-91
US	28	901	SEAMAP ECOSYSTEM S ATLANTIC	3	136	80	70	62	*1	*1	*1	*1	40	*2	*2	*2	348	2.0	10-Jun-92
TOTAL					2128	1566	33572	1887	157070	644	14345	2	583	1340	32	91	212677		

STATUS CODES:

*1 NOT TAKEN
*2 NOT ENTERED
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 6

06-Oct-95

SEAMAP 1991

DATA SOURCE	VESSEL	CRUISE	CRUISE REPORT TITLE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	911	SUMMER SHRIMP GROUNDFISH GOM	3	10	10	159	10	450	7	155	*1	*1	*1	*1	*1	801	2.0	26-Mar-92
AL	23	912	KING MACKEREL RED DRUM PLANKTON	3	10	*1	*1	10	*1	*1	*1	*1	10	10			30	2.0	26-Mar-92
AL	23	913	GROUNDFISH SURVEY GOM	3	7	7	174	7	935	*1	*1	*1	*1	*1	*1	*1	1130	2.0	26-Mar-92
FL	36	911	SPRING 1991 ICHTHYOPLANKTON	3	13	*1	*1	13	*1	*1	*1	*1	13	39			65	2.0	22-Jul-92
FL	36	912	FALL 1991 ICHTHYOPLANKTON	3	23	*1	*1	23	*1	*1	*1	*1	23	68			114	2.0	22-Jul-92
LA	25	913	SUMMER SEAMAP	3	21	21	130	21	1479	6	62	*1	21	42			1782	2.02	30-Nov-92
LA	25	915	FALL SEAMAP	3	21	21	193	21	1716	12	230	*1	21	42			2256	2.02	30-Nov-92
LA	35	911	SPRING SEAMAP	3	29	22	602	29	6570	19	188	*1	7	21			7480	2.02	30-Nov-92
LA	35	912	SUMMER SEAMAP	3	31	24	360	31	3368	12	251	*1	7	21			4098	2.02	30-Nov-92
LA	35	914	FALL SEAMAP	3	31	24	461	30	3096	22	395	*1	7	21			4080	2.02	30-Nov-92
LA	35	916	WINTER SEAMAP	3	31	24	606	30	5814	24	779	*1	7	16			7324	2.02	01-Dec-92
MS	17	911	SHRIMP/GROUNDFISH SURVEY	3	41	39	856	38	6402	27	989	*1	2	6	88	248	8734	2.0	10-May-94
MS	17	912	FALL ICHTHYOPLANKTON SUR GOM	3	118	*1	*1	118	*1	*1	*1	*1	101	107	35	132	510	2.0	19-May-94
MS	17	913	SEAMAP CRUISE MS 913	3	27	27	657	27	4652	*1	*1	*1	*1	*1	*1	*1	5390	2.0	26-Feb-92
SC	51	911	SPRING SOUTH ATLANTIC SURVEY	3	210	210	6022	210	15930	108	1931	*1	*1	*1	*1	*1	24621	2.0	15-Apr-92
SC	51	912	SUMMER SOUTHATLANTIC SEAMAP SUR	3	156	156	3979	156	12688	75	1155	*1	*1	*1	*1	*1	18365	2.0	05-May-92
SC	51	913	FALL SEAMAP SOUTH ATLANTIC	3	172	172	4732	172	12249	99	2061	*1	*1	*1	*1	*1	19657	2.0	12-May-92
TX	31	911	SUMMER SEAMAP	3	16	16	250	16	1354	10	76	*1	*1	*1	*1	*1	1738	2.0	28-Sep-92
TX	32	911	SUMMER SEAMAP	3	16	16	270	16	1406	13	156	*1	*1	*1	*1	*1	1893	2.0	28-Sep-92
TX	33	911	SUMMER SEAMAP	3	16	16	182	16	596	10	99	*1	*1	*1	*1	*1	935	2.0	28-Sep-92
TX	34	911	SUMMER SEAMAP	3	16	16	138	16	681	10	51	*1	*1	*1	*1	*1	928	2.0	28-Sep-92
TX	40	911	SUMMER SEAMAP	3	16	16	187	16	891	12	182	*1	*1	*1	*1	*1	1320	2.0	28-Sep-92
TX	31	912	FALL SEAMAP	3	16	16	154	16	639	*1	*1	*1	*1	*1	*1	*1	841	2.0	16-Oct-92
TX	32	912	FALL SEAMAP	3	16	16	236	16	1015	*1	*1	*1	*1	*1	*1	*1	1299	2.0	16-Oct-92
TX	33	912	FALL SEAMAP	3	16	16	112	16	352	*1	*1	*1	*1	*1	*1	*1	512	2.0	16-Oct-92
TX	34	912	FALL SEAMAP	3	16	16	148	16	563	*1	*1	*1	*1	*1	*1	*1	759	2.0	16-Oct-92
TX	40	912	FALL SEAMAP	3	16	16	137	16	545	*1	*1	*1	*1	*1	*1	*1	730	2.0	16-Oct-92
US	4	192	ATLANTIC SEAMAP	3	314	208	*1	107	*1	*1	*1	*1	*1	*1	*1	*1	629	2.0	30-Oct-91
US	4	194	SEAMAP GULF PLANKTON SUR	3	159	*1	*1	139	*1	*1	*1	*1	159	442			740	2.0	15-Apr-92
US	4	195	SEAMAP SPRING GROUNDFISH SURVEY	3	288	267	6546	223	40667	186	7976	*1	37	111			56264	2.0	12-Dec-91
US	4	197	FALL BOTTOMFISH SURVEY	3	327	293	7389	241	42639	*1	*1	*1	40	120	1353	3335	55697	2.0	19-May-94
US	28	914	FALL SEAMAP ICHTHYOPLANKTON SUR	3	166	*1	*1	138	*1	*1	*1	*1	96	286	1102	2487	4179	2.0	17-May-94
TOTAL					2365	1685	34680	1954	166697	652	16736		551	1352	2578	6202	234901		

STATUS CODES:

*1 NOT TAKEN
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3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 7

06-Oct-95

SEAMAP 1992

DATA SOURCE	VESSEL	CRUISE	CRUISE REPORT TITLE	STATUS	INVENTORY STATION	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	920	REEFFISH TRAP/VIDEO	3	7	7	3	*1	*1	*1	*1	20	*1	*1	*1	*1	37	3.0	28-Jan-94
AL	23	921	SUMMER SEAMAP	3	16	16	332	16	2059	6	78	*1	*1	*1	*1	*1	2523	2.1	08-Jan-93
AL	23	922	FALL SEAMAP	3	9	*1	*1	9	*1	*1	*1	*1	9	9			27	2.1	08-Jan-93
AL	23	923	FALL SEAMAP	3	8	8	193	8	1099	*1	*1	*1	*1	*1	*1	*1	1316	2.1	08-Jan-93
FL	26	921	SPRING ICHTHYOPLANKTON	3	21	*1	*1	21	*1	*1	*1	*1	21	57	837	1521	2457	2.02	18-May-94
FL	26	922	FALL ICHTHYOPLANKTON	3	14	*1	*1	14	*1	*1	*1	*1	13	37	426	834	1325	2.02	20-Sep-95
LA	35	921	SPRING SEAMAP	3	30	24	625	30	7061	24	233	*1	6	18			8045	3.0	16-Nov-93
LA	35	922	SUMMER SEAMAP	3	31	24	373	31	4215	12	88	*1	7	21			4795	3.0	16-Nov-93
LA	35	923	FALL SEAMAP	3	25	20	342	23	2551	19	315	*1	5	10			3305	3.0	16-Nov-93
LA	35	924	WINTER SEAMAP	3	31	24	659	31	7812	23	674	*1	7	20			9274	3.0	16-Nov-93
MS	17	921	SEAMAP TRAP/VIDEO SURVEY	3	16	16	13	16	48	*1	*1	48	*1	*1	*1	*1	157	3.0	02-Mar-93
MS	17	922	SUMMER SEAMAP	3	44	42	1093	38	8408	32	916	*1	2	6			10579	2.02	08-Mar-93
MS	17	924	FALL GROUND FISH	3	15	15	335	15	2445	*1	*1	*1	*1	*1	*1	*1	2825	3.0	08-Oct-93
SC	51	921	SPRING SOUTH ATLANTIC SURVEY	3	210	210	5045	210	13967	95	1053	*1	*1	*1	*1	*1	20790	2.02	29-Sep-92
SC	51	922	SUMMER SOUTH ATLANTIC SURVEY	3	156	156	3801	156	8568	50	537	*1	*1	*1	*1	*1	13424	2.02	30-Dec-92
SC	51	923	FALL SEAMAP	3	188	188	4958	188	9692	89	1198	*1	*1	*1	*1	*1	16501	2.02	27-Jan-93
TX	31	921	SUMMER SEAMAP	3	16	16	168	16	827	12	159	*1	*1	*1	*1	*1	1214	2.02	25-Mar-93
TX	32	921	SUMMER SEAMAP	3	16	16	197	16	1043	7	34	*1	*1	*1	*1	*1	1329	2.02	25-Mar-93
TX	33	921	SUMMER SEAMAP	3	16	16	195	16	805	7	23	*1	*1	*1	*1	*1	1078	2.02	26-Mar-93
TX	34	921	SUMMER SEAMAP	3	16	16	158	16	769	12	90	*1	*1	*1	*1	*1	1077	2.02	26-Mar-93
TX	40	921	SUMMER SEAMAP	3	16	16	147	16	727	9	63	*1	*1	*1	*1	*1	994	2.02	26-Mar-93
TX	31	922	FALL SEAMAP	3	16	16	227	16	1141	*1	*1	*1	*1	*1	*1	*1	1416	3.0	01-Jul-93
TX	32	922	FALL SEAMAP	3	16	16	291	16	1655	*1	*1	*1	*1	*1	*1	*1	1994	3.0	01-Jul-93
TX	33	922	FALL SEAMAP	3	16	16	160	16	454	*1	*1	*1	*1	*1	*1	*1	662	3.0	01-Jul-93
TX	34	922	FALL SEAMAP	3	16	16	270	16	1442	*1	*1	*1	*1	*1	*1	*1	1760	3.0	01-Jul-93
TX	40	922	FALL SEAMAP	3	16	16	193	16	910	*1	*1	*1	*1	*1	*1	*1	1151	3.0	01-Jul-93
US	4	199	SPRING ICHTHYOPLANKTON	3	248	*1	*1	208	*1	*1	*1	*1	147	436			892	2.02	09-Mar-93
US	4	200	SUMMER SEAMAP	3	284	260	6763	221	39987	174	3463	*1	41	123			51275	2.02	19-Jan-93
US	4	201	FALL ICHTHYOPLANKTON	3	49	*1	*1	49	*1	*1	*1	*1	27	79	1046	2236	3459	3.0	24-May-94
US	4	202	FALL BOTTOMFISH SURVEY	3	294	273	7061	220	43846	*1	*1	6	30	90	378	732	52900	3.0	20-Sep-95
US	28	923	REEFISH CRUISE	3	179	147	113	149	*1	*1	*1	607	29	147			1342	3.0	14-Jul-93
US	28	925	FALL ICHTHYOPLANKTON	3	118	*1	*1	116	*1	*1	*1	*1	73	219			453	3.0	02-Sep-93
VI	58	922	VIRGIN ISL REEFFISH 1992	3	63	63	85	*1	*1	*1	*1	128	*1	*1	*1	*1	339	3.1	19-May-95
VI	59	922	VIRGIN ISL REEFFISH 1992	3	16	16	12	*1	*1	*1	*1	20	*1	*1	*1	*1	64	3.1	19-May-95
TOTAL					2232	1669	33812	1929	161531	571	8924	829	417	1272	2687	5323	220779		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 8

06-Oct-95

SEAMAP 1993

DATA SOURCE	VESSEL	CRUISE	CRUISE REPORT TITLE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	930	COMPARITIVE TOW	3	22	22	494	18	441	*1	*1	*1	*1	*1			997	3.0	19-Jan-94
AL	23	931	SUMMER SEAMAP	3	10	10	212	10	953	5	95	*1	*1	*1	*1	*1	1295	3.0	19-Jan-94
AL	23	932	FALL ICHTHYOPLANKTON	3	9	*1	*1	9	*1	*1	*1	*1	9	9	*1	*1	27	3.0	19-Jan-94
AL	23	933	FALL SEAMAP	3	9	9	199	9	1108	*1	*1	*1	*1	*1			1334	3.0	19-Jan-94
AL	23	934	REEFFISH TRAP/VIDEO	3	11	11	24	11	*1	*1	*1	343	*1	*1	*1	*1	400	3.0	06-Jul-94
FL	26	932	FALL ICHTHYOPLANKTON	3	36	*1	*1	36	*1	*1	*1	*1	36	108			180	3.0	15-Feb-94
FL	30	931	SPRING ICHTHYOPLANKTON	3	19	*1	*1	19	*1	*1	*1	*1	19	57			95	3.0	10-Nov-93
LA	35	931	SPRING SEAMAP	3	31	24	680	30	8117	20	189	*1	7	21			9112	3.0	08-Apr-94
LA	35	932	SUMMER SEAMAP	3	31	24	443	30	5597	22	535	*1	7	21			6703	3.0	08-Apr-94
LA	35	933	FALL SEAMAP	3	31	24	501	29	5012	19	414	*1	7	21			6051	3.0	18-Apr-94
LA	35	934	WINTER SEAMAP	3	29	24	619	29	7615	23	721	*1	5	15			9075	3.0	18-Apr-94
MS	17	930	SEAMAP COMPARATIVE TOW	3	22	22	551	*1	409	*1	*1	*1	*1	*1	*1	*1	1004	3.0	15-Oct-93
MS	17	931	TRAP/VIDEO	3	8	8	2	8	*1	*1	*1	4	*1	*1	*1	*1	30	3.0	08-Mar-94
MS	17	932	SUMMER SEAMAP	3	37	35	908	37	7420	29	832	*1	2	6			9304	3.0	08-Mar-94
MS	17	933	FALL ICHTHYOPLANKTON	3	48	*1	*1	48	*1	*1	*1	*1	48	48			144	3.0	17-Jun-94
MS	17	934	FALL ICHTHYOPLANKTON	3	47	*1	*1	47	*1	*1	*1	*1	47	53			147	3.0	05-Jul-94
MS	17	935	FALL ICHTHYOPLANKTON	3	27	25	688	27	4713	*1	*1	*1	2	6			5486	3.0	07-Jun-94
SC	51	931	SPRING SEAMAP	3	210	210	4267	210	8920	80	1080	*1	*1	*1	*1	*1	14977	3.0	03-Feb-94
SC	51	932	SUMMER SEAMAP	3	156	156	3680	156	8484	65	1604	*1	*1	*1	*1	*1	14301	3.0	28-Jan-94
SC	51	933	FALL SEAMAP	3	188	188	4471	188	8600	105	1868	*1	*1	*1	*1	*1	15608	3.0	28-Jan-94
TX	31	931	SUMMER SEAMAP	3	16	16	328	16	1807	14	106	*1	*1	*1	*1	*1	2303	3.0	24-Mar-94
TX	32	931	SUMMER SEAMAP	3	16	16	250	16	1414	10	37	*1	*1	*1	*1	*1	1759	3.0	30-Mar-94
TX	33	931	SUMMER SEAMAP	3	16	16	271	16	874	8	98	*1	*1	*1	*1	*1	1299	3.0	30-Mar-94
TX	34	931	SUMMER SEAMAP	3	16	16	110	16	513	2	14	*1	*1	*1	*1	*1	687	3.0	30-Mar-94
TX	40	931	SUMMER SEAMAP	3	16	16	213	16	1056	11	345	*1	*1	*1	*1	*1	1673	3.0	30-Mar-94
TX	31	932	FALL SEAMAP	3	16	16	215	16	882	*1	*1	*1	*1	*1	*1	*1	1145	3.0	01-Jul-94
TX	32	932	FALL SEAMAP	3	16	16	253	16	1040	*1	*1	*1	*1	*1	*1	*1	1341	3.0	01-Jul-94
TX	33	932	FALL SEAMAP	3	16	16	304	16	1057	*1	*1	*1	*1	*1	*1	*1	1409	3.0	01-Jul-94
TX	34	932	FALL SEAMAP	3	16	16	113	16	331	*1	*1	*1	*1	*1	*1	*1	492	3.0	01-Jul-94
TX	40	932	FALL SEAMAP	3	16	16	200	16	1189	*1	*1	*1	*1	*1	*1	*1	1437	3.0	01-Jul-94
US	4	203	MARINE MAMMAL/ICHTHYO	3	212	*1	*1	107	*1	*1	*1	*1	116	425			744	3.0	16-Nov-93
US	4	204	ICHTHYOPLANKTON MAMMALS	3	274	*1	*1	160	*1	*1	*1	*1	121	367	1267	2168	4236	3.0	20-Sep-95
US	4	205	SUMMER SEAMAP	3	298	277	6899	222	40984	178	5465	*1	41	122			54445	3.0	06-May-94
US	4	207	FALL ICHTHYOPLANKTON	3	11	*1	*1	11	*1	*1	*1	*1	10	30			52	3.0	31-May-94
US	4	208	FALL GROUNDFISH	2	303	285	7624	245	46394	*1	*1	*1	36	108			54959	3.1	15-Jul-94
US	28	934	SPRING ICHTHYOPLANKTON	3	91	*1	*1	82	*1	*1	*1	*1	82	235	1096	1840	3344	3.0	20-Sep-95
US	28	935	REEFFISH ICHTHYOPLANKTON	3	213	185	89	180	*1	*1	*1	387	28	107			1161	3.0	16-Feb-94
US	28	936	FALL ICHTHYOPLANKTON	3	162	*1	*1	159	*1	*1	*1	*1	72	216			537	3.0	04-May-94
VI	58	931	VIRGIN ISL REEFFISH 1993	3	15	15	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	30	3.1	23-May-95
VI	59	932	VIRGIN ISL REEFFISH 1993	3	30	30	8	*1	*1	*1	*1	9	*1	*1	*1	*1	77	3.1	19-May-95
VI	60	932	REEFFISH SURVEY	3	24	24	43	*1	*1	*1	*1	92	*1	*1	*1	*1	183	3.1	10-Nov-94
TOTAL					2774	1768	34659	2277	164930	591	13403	835	695	1975			229583		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 9

06-Oct-95

SEAMAP 1994

DATA SOURCE	VESSEL	CRUISE		INVENTORY STATUS	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	941	SUMMER SEAMAP	3	8	8	223	8	1570	5	202	*1	*1	*1			2024	3.1	08-Nov-94
AL	23	942	FALL ICHTHYOPLANKTON	3	9	*1	*1	9	*1	*1	*1	*1	9	9			27	3.1	17-Jul-95
AL	23	943	FALL SEAMAP	3	8	8	159	8	1036	*1	*1	*1	*1	*1	*1	*1	1219	3.1	26-Jun-95
AL	23	944	TRAP/VIDEO	3	11	11	25	11	*1	*1	*1	379	*1	*1	*1	*1	437	3.1	04-Aug-95
FL	36	941	SPRING ICHTHYOPLANKTON	3	5	*1	*1	5	*1	*1	*1	*1	5	15			25	3.1	19-Oct-94
FL	36	942	FALL ICHTHYOPLANKTON	3	29	*1	*1	29	*1	*1	*1	*1	29	87			145	3.1	16-Feb-95
LA	35	940	COMPARATIVE TOW	3	49	49	1433	11	398	42	268	*1	*1	*1	*1	*1	2250	3.1	21-Sep-94
LA	35	941	SPRING SEAMAP	3	31	24	697	31	9424	23	153	*1	7	19			10402	3.1	21-Sep-94
LA	35	942	SUMMER SEAMAP	3	31	24	539	31	6411	17	465	*1	7	21			7539	3.1	28-Apr-95
LA	35	943	FALL SEAMAP	3	31	24	588	31	5943	23	439	*1	7	21			7100	3.1	28-Apr-95
LA	35	944	WINTER SEAMAP	3	24	20	465	24	4253	20	571	*1	4	10			5387	3.1	28-Apr-95
MS	17	940	COMPARATIVE TOW	3	49	49	1427	*1	496	*1	*1	*1	*1	*1	*1	*1	2021	3.0	21-Sep-94
MS	17	941	SUMMER SEAMAP	3	39	37	993	39	8131	28	923	*1	2	6			10196	3.1	17-May-95
MS	17	942	REEFFISH SURVEY	3	9	9	20	9	*1	*1	*1	99	*1	*1	*1	*1	146	3.1	07-Apr-95
MS	17	943	FALL ICHTHYOPLANKTON	3	47	*1	*1	47	*1	*1	*1	*1	47	51			145	3.1	25-Jul-95
MS	17	944	FALL ICHTHYOPLANKTON	3	2	*1	*1	2	*1	*1	*1	*1	2	6			10	3.1	25-Jul-95
MS	17	945	FALL GROUNDFISH	3	23	23	562	12	4204	*1	*1	*1	*1	*1	*1	*1	4824	3.1	07-Apr-95
SC	51	941	SPRING SEAMAP	3	210	210	4051	210	7228	52	454	*1	*1	*1	*1	*1	12415	3.1	21-Sep-94
SC	51	942	SUMMER SEAMAP	3	156	156	3360	156	7227	56	1109	*1	*1	*1	*1	*1	12220	3.1	13-Oct-94
SC	51	943	FALL SEAMAP	3	188	188	5319	188	11833	116	2903	*1	*1	*1	*1	*1	20735	3.1	16-Feb-95
TX	31	941	SUMMER SEAMAP	3	16	16	200	16	1278	6	70	*1	*1	*1	*1	*1	1602	3.1	21-Jun-95
TX	32	941	SUMMER SEAMAP	3	16	16	199	16	1124	8	34	*1	*1	*1	*1	*1	1413	3.1	21-Jun-95
TX	33	941	SUMMER SEAMAP	3	16	16	147	16	353	5	35	*1	*1	*1	*1	*1	588	3.1	21-Jun-95
TX	34	941	SUMMER SEAMAP	3	16	16	127	16	675	10	117	*1	*1	*1	*1	*1	977	3.1	21-Jun-95
TX	40	941	SUMMER SEAMAP	3	16	16	129	16	668	5	28	*1	*1	*1	*1	*1	878	3.1	21-Jun-95
TX	31	942	FALL SEAMAP	3	16	16	270	16	1519	*1	*1	*1	*1	*1	*1	*1	1837	3.1	21-Jun-95
TX	32	942	FALL SEAMAP	3	16	16	251	16	1456	*1	*1	*1	*1	*1	*1	*1	1755	3.1	21-Jun-95
TX	33	942	FALL SEAMAP	3	16	16	140	16	538	*1	*1	*1	*1	*1	*1	*1	726	3.1	21-Jun-95
TX	34	942	FALL SEAMAP	3	16	16	121	16	525	*1	*1	*1	*1	*1	*1	*1	694	3.1	21-Jun-95
TX	40	942	FALL SEAMAP	3	16	16	146	16	562	*1	*1	*1	*1	*1	*1	*1	756	3.1	21-Jun-95
US	4	209	SPRING ICHTHYOPLANKTON	3	217	*1	*1	155	*1	*1	*1	*1	122	505			877	3.1	12-Oct-94
US	4	210	SUMMER SEAMAP	3	273	246	6212	239	42521	193	5352	*1	42	125			55161	3.1	16-Feb-95
US	4	214	FALL GROUNDFISH	3	288	253	7781	251	51577	*1	*1	*1	48	144			60294	3.1	18-May-95
US	28	944	ICHTHYOPLANKTON SURVEY	3	60	*1	*1	60	*1	*1	*1	*1	60	173			293	3.1	19-Oct-94
US	28	945	REEFFISH SURVEY	3	191	160	111	159	291	*1	*1	432	30	115			1459	3.1	23-Mar-95
US	28	946	FALL ICHTHYOPLANKTON	3	121	*1	*1	88	*1	*1	*1	*1	88	264			473	3.1	22-Mar-95
VI	59	941	VIRGIN ISL REEFFISH 1994	3	88	88	38	*1	*1	*1	*1	63	*1	*1	*1	*1	277	3.1	19-May-95
VI	60	941	REEFFISH SURVEY	3	34	34	62	*1	*1	*1	*1	167	*1	*1	*1	*1	297	3.1	09-Nov-94
TOTAL					2391	1781	35795	1973	171241	609	13123	1140	509	1571			229624		

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 10

18-Oct-95

SEAMAP 1995

DATA SOURCE	VESSEL	CRUISE		INVENTORY STATUS	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON MERISTICS	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	TOTAL	SEAMAP VERSION	DATE DBASED
AL	23	950	TRAP/VIDEO	3	1	1	*1	1	*1	*1	*1	*1	*1	*1	*1	3	3.1	04-Aug-95
FL	26	951	SPRING ICHTHYOPLANKTON	3	15	*1	*1	15	*1	*1	*1	*1	15	45			75	3.1	04-Aug-95
SC	51	951	SPRING SEAMAP	3	210	210	4696	210	10439	92	987	*1	*1	*1	*1	*1	16844	3.1	21-Jul-95
TOTAL					226	211	4696	226	10439	92	987		15	45			16922		

STATUS CODES:

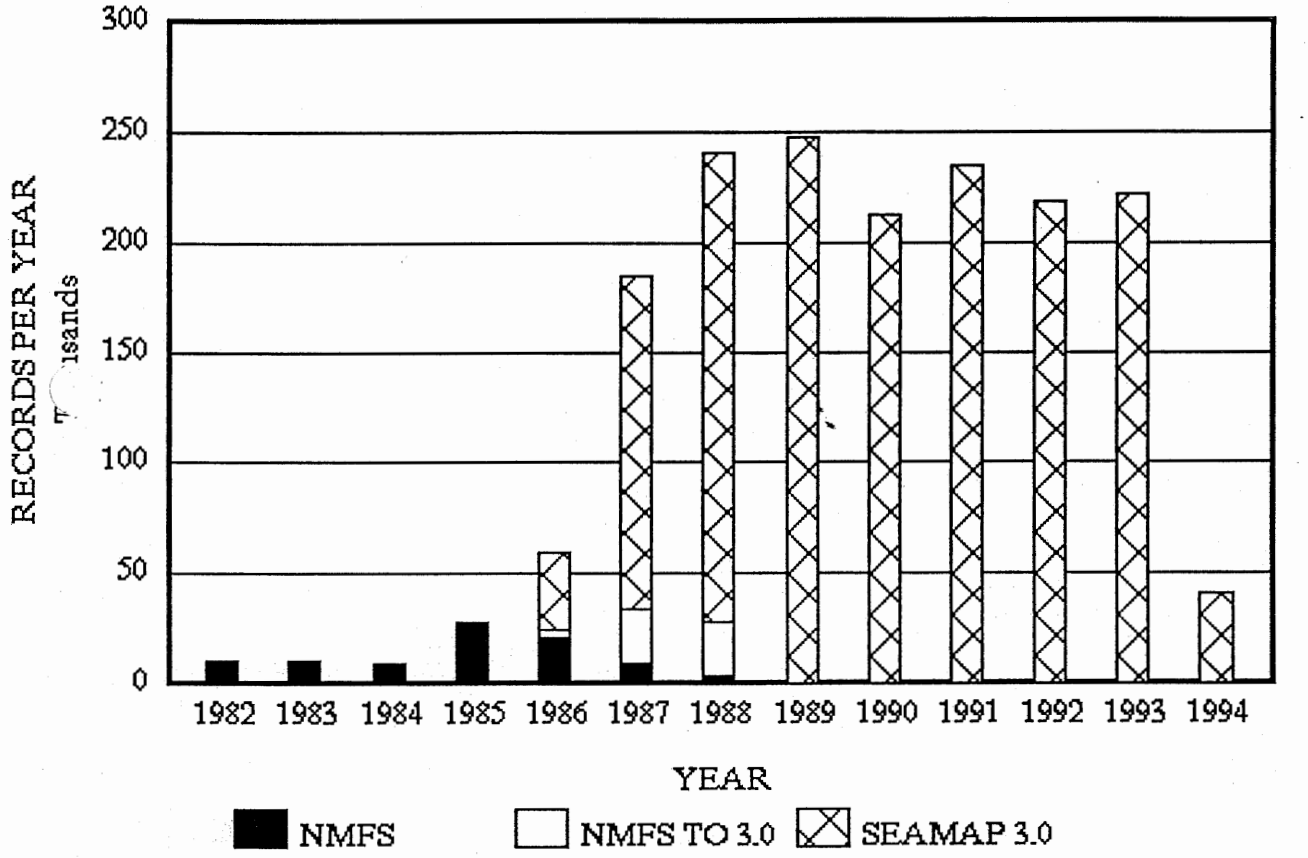
*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON MIAMI UNISYS A10 SYSTEM(VERIFIED AND DATA BASED)

Attachment 11

17-Oct-94

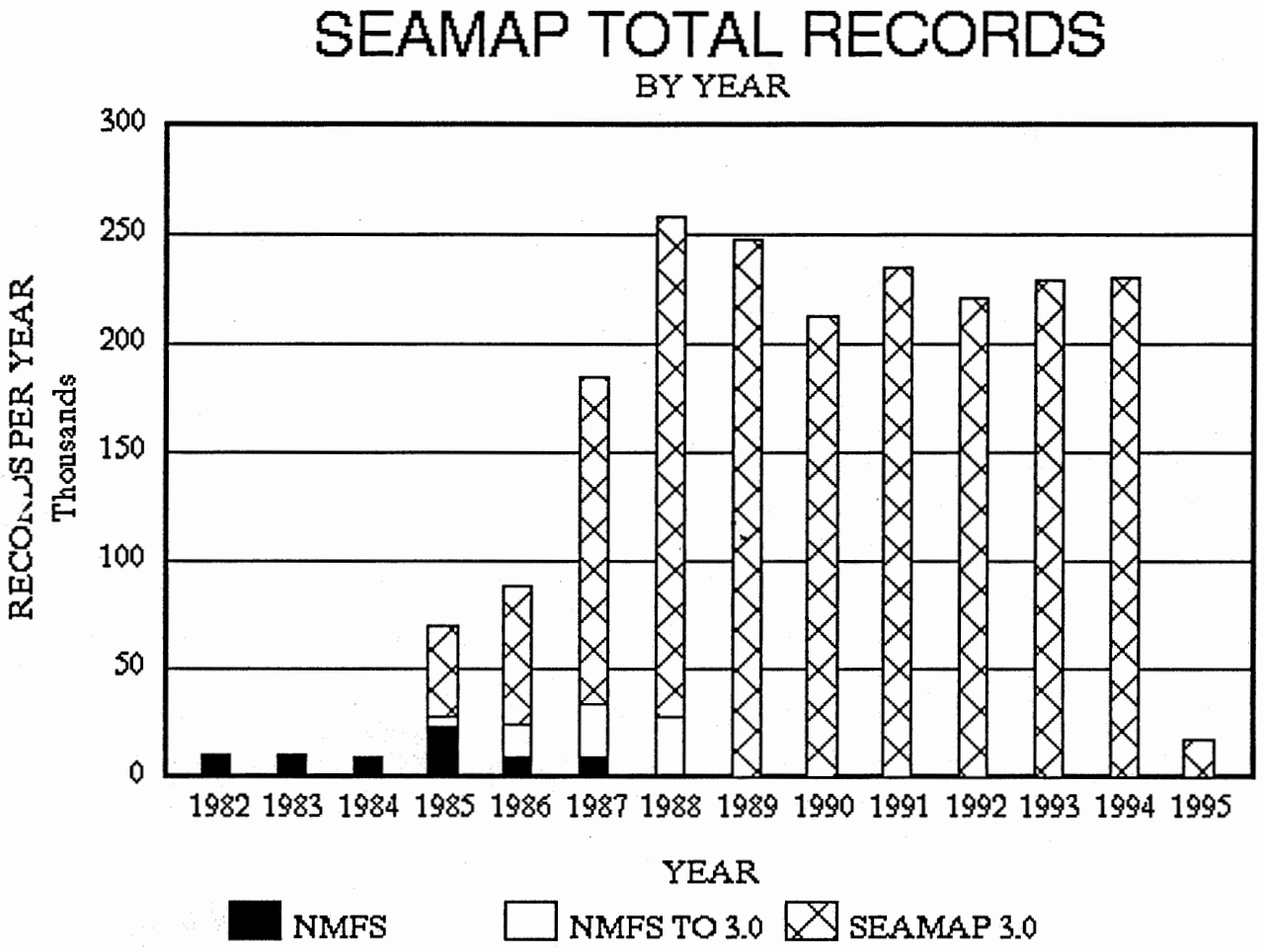
SEAMAP TOTAL RECORDS

BY YEAR



Attachment 12

18-Oct-95



State of Louisiana

ATTACHMENT III

Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, LA 70898-9000
(504) 765-2800

Joe L. Herring
Secretary

Edwin W. Edwards
Governor

October 20, 1995

MEMORANDUM

TO: Jim Hanifen, Program Manager

FROM: M. Michelle Kasprzak and Terry Romarie, Project Leaders

SUBJECT: SEAMAP Chlorophyll data

As you are aware the SEAMAP Environmental Data Work Group met in March 1995 to discuss procedures used for the determination of chlorophyll *a*. National Marine Fisheries Service (NMFS) had conducted a study comparing the results of the collection of chlorophyll *a* measurements through *in vivo* fluorometry with a CTD and the standardized method of Strickland and Parsons and Jeffrey and Humphrey. Results for the combined cruises resulted in a poor R-square (0.31), but some individual cruises and legs resulted in high R-square (0.95-0.99) values.

Louisiana Department of Wildlife and Fisheries (LDWF) conducted a study during the Summer (175 samples) and Fall (217 samples) 1995 SEAMAP cruises to compare the laboratory fluorometric (LDWF does not have *in vivo* fluorometry capabilities) and spectrophotometric determinations of chlorophyl *a*. The Holm-Hansen (1977) methanol extraction method was used for samples collected for fluorometric analysis, with the exception of using a 47 mm filter since the use of a 25 mm filter would have required the purchase of new equipment (all volumes were proportional to the filter size). The Strickland and Parsons and Jeffrey and Humphrey standard spectrophotometric method was also used. Water samples were filtered for both methods in the field and filters immediately frozen. Samples were processed within 30 days after return to the laboratory.

Unless a calculation error of around 2.5% is found for the fluorometric determination then the data would seem to agree with the Trees, et al, article of 1985 in *Marine Chemistry* that states "the standard fluorometric method generally underestimates chlorophyll *a* concentrations by an average of 39%." The presence of chlorophyll *b* and *c*, and phaeopigments can cause errors in the results. When there are excessive amounts of chlorophyll *c* relative to chlorophyll *a* a

overestimation of chlorophyll *a* takes place and an underestimation takes place when there is an excessive amount of chlorophyll *b* relative to chlorophyll *a*. The average percent underestimation of chlorophyll *a* in the summer comparison was 59%. The average percent underestimation of chlorophyll *a* in the fall comparison was 39%. This agrees with our conjecture that the assemblages of phytoplankton change seasonally and therefore account for the different proportions of chlorophyll *a*, *b* and *c*. Data from the Summer cruise are listed in Table 1 (both spectrophotometric and fluorometric values are an average of 3 filters for the top stations and 2 filters each for the mid and bottom stations); data from the Fall cruise are being entered into the computer.

It would appear that the use of fluorometry would not be acceptable in Louisiana waters, at least in the summer and fall, due to the underestimation of chlorophyll *a*. It is possible that due to the low chlorophyll levels off the Florida coast, fluorometry would be the preferred method for this location. We are also concerned about a loss of data associated with the use of fluorometry in that only chlorophyll *a* is measured. In using the spectrophotometric method it is possible to calculate chlorophyll *a, b* and *c*, from which phytoplankton population assemblages could be determined.

At this time we would recommend continuing the comparison between laboratory fluorometry and spectrophotometry methods of chlorophyll determination for the Winter 1995 and Spring 1996 cruises so results from all seasons are obtained. We would not recommend changing to the fluorometric method at this time due to preliminary results. We would also recommend presenting these results to the SEAMAP Environmental Data Work Group for discussion purposes.

CC: Ralph Allemand, Project Leader

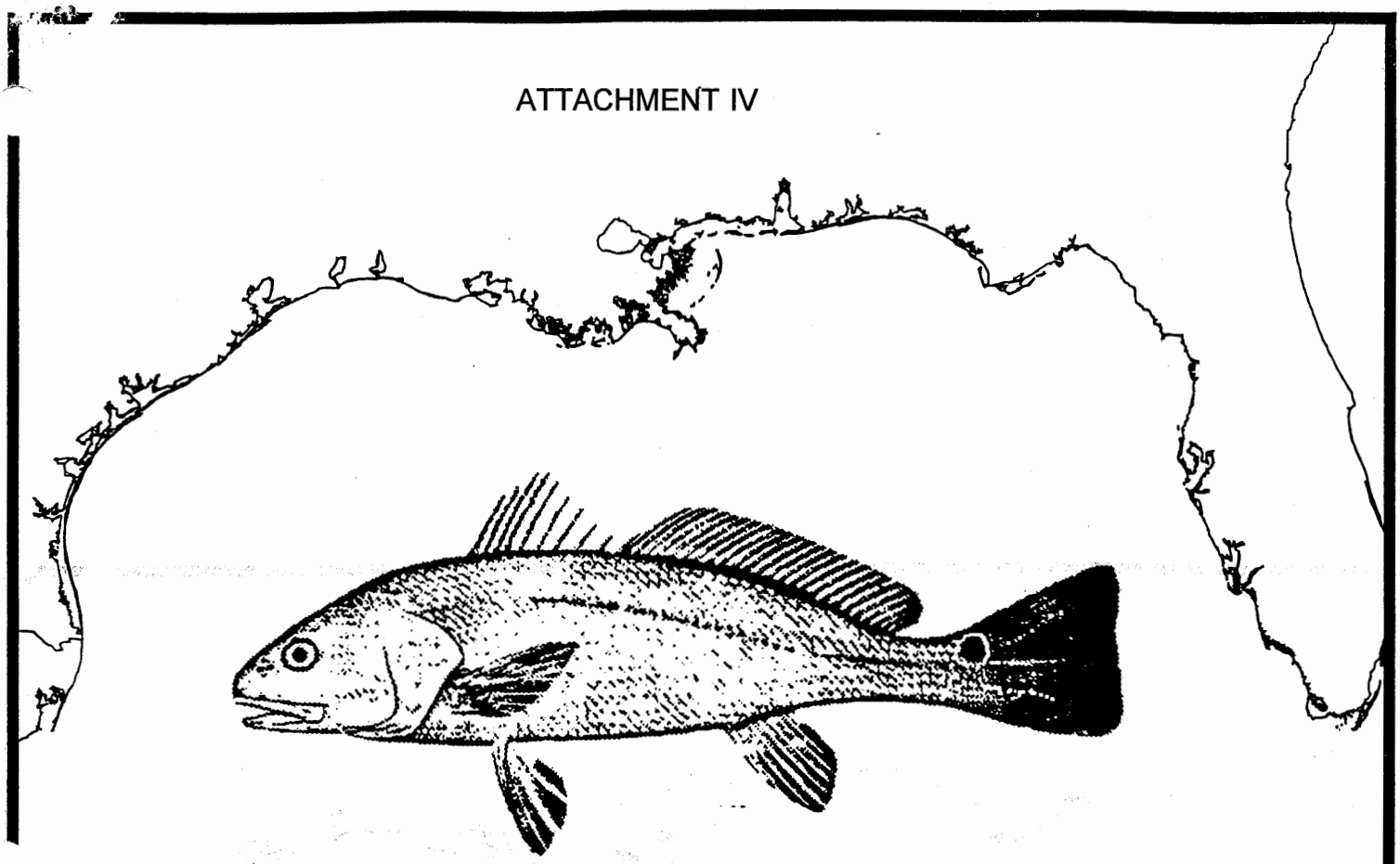
Table 1 Results of fluorometric and spectophotometric determination of chlorophyll *a*, Summer 1995 cruise.

STATION NAME	SPEC VALUE	FLUOR VALUE	% DIFFERENCE
D 622 T	17.90	9.07	49%
D 622 M	1.15	0.40	65%
D 622 B	1.10	0.52	53%
D 624 T	7.25	3.37	54%
D 624 M	9.27	4.00	57%
D 624 B	2.02	0.70	65%
D 625 T	23.26	8.26	64%
D 625 M	0.95	0.36	62%
D 625 B	1.68	0.32	81%
D 626 T	7.91	2.87	64%
D 626 M	0.88	0.36	59%
D 626 B	1.70	0.87	49%
D 627 T	7.31	2.47	66%
D 627 M	1.93	0.76	61%
D 627 B	1.48	0.36	76%
D 628 T	3.20	2.17	32%
D 628 M	0.86	0.28	65%
D 628 B	1.16	0.60	48%
D 629 T	6.28	2.58	59%
D 629 M	0.82	0.40	51%
D 629 B	1.49	0.75	50%
D 630 T	5.18	2.20	58%
D 630 M	0.66	0.24	64%
D 630 B	2.34	0.76	68%

D 633 T	4.58	1.33	71%
D 633 M	1.21	0.36	70%
D 633 B	0.83	0.35	58%
N 622 T	12.87	9.60	25%
N 622 M	1.22	0.48	61%
N 622 B	0.79	0.45	43%
N 624 T	4.89	1.84	62%
N 624 M	2.98	1.24	58%
N 624 B	1.41	0.60	57%
N 625 T	16.3	7.82	52%
N 625 M	1.55	0.57	63%
N 625 B	1.40	0.40	71%
N 626 T	9.44	3.03	68%
N 626 M	0.51	0.32	37%
N 626 B	1.36	0.64	53%
N 627 T	5.73	1.91	67%
N 627 M	3.25	1.12	66%
N 627 B	1.57	0.50	68%
N 628 T	7.89	2.31	71%
N 628 M	0.58	0.32	45%
N 628 B	1.46	0.60	59%
N 629 T	5.47	2.45	55%
N 629 M	0.91	0.28	69%
N 629 B	lost	0.55	
N 630 T	6.76	2.40	64%
N 630 M	0.53	0.20	62%
N 630 B	2.02	0.74	63%
N 633 T	2.21	0.75	66%

N 633 M	0.70	0.24	66%
N 633 B	0.86	0.60	30%
P 101 T	10.58	3.47	76%
P 101 M	6.34	1.64	74%
P 101 B	2.77	0.93	66%
P 102 T	9.82	4.40	55%
P 102 M	9.91	4.00	60%
P 102 B	9.42	3.14	67%
P 103 T	9.42	3.65	61%
P 103 M	4.30	1.95	55%
P 103 B	5.27	2.20	58%
P 104 T	18.72	7.46	60%
P 104 M	0.57	0.44	23%
P 104 B	0.88	0.40	55%
P 105 T	14.56	7.73	47%
P 105 M	1.00	0.52	48%
P 105 B	2.77	1.10	60%
P 106 T	4.22	2.00	53%
P 106 M	0.68	0.28	59%
P 106 B	0.75	0.28	63%
P 107 T	2.66	0.77	71%
P 107 M	0.42	0.16	62%
P 107 B	0.92	0.52	43%

ATTACHMENT IV



1995 GULF OF MEXICO

RED DRUM AERIAL SURVEY

SEPTEMBER - NOVEMBER 1995

SOUTHEAST FISHERIES SCIENCE CENTER

PASCAGOULA LABORATORY

PROPOSED ITINERARY FOR RED DRUM AERIAL SURVEYS
SEPTEMBER 17 - NOVEMBER 27, 1995

The tentative bases of operation for the Red Drum aerial surveys are listed below. Bases of operation and associated dates are subject to change due to weather conditions and aircraft maintenance schedules. To determine the actual location of the survey team please contact Velda Harris or Terry Henwood at (601)762-4591.

September 17, 1995 Start 75 day survey window
Aircraft Transit day to Pascagoula, MS
Reservations for the flight crew at the:

LaFont Inn	(601)762-7111
HWY 90	2 Rooms Government rate
Pascagoula, MS	Teresa-confirmation #

September 18	Outfit both aircraft
September 19	First Survey Day - Both aircraft will survey North-Central Gulf area

Survey Personnel

Wayne Hoggard	Carol Roden
Carolyn Rogers	Sean O'Sullivan

October 3	Last day of North-Central Gulf Survey
October 4	Transit Day
October 5 - 19	Houma, LA - Both aircraft will survey the Louisiana area
October 20	Transit Day
October 21 - November 4	Galveston, TX or Apalachicola, FL North Texas Northern Florida
November 5- 12	100 - hour inspection & transit day
November 13 -30	Corpus Christi TX or Tampa, FL Southern Texas Central Florida

The Southern Florida study area is considered a lower priority and will be surveyed only after the above areas are completed. Given favorable weather conditions, either or both aircraft could finish ahead of schedule and begin the south Florida area within the identified window.

1995 RED DRUM AERIAL SURVEYS

INTRODUCTION:

In the mid 1980s, sharp increases in the commercial purse seine harvest of adult red drum, Sciaenops ocellatus, and observed declines in recreationally important young red drum led to investigations of the status of stocks in the Gulf of Mexico. A two pronged approach consisting of aerial surveys and mark/recapture studies was initiated in 1986, and results of this work were summarized in Lohoefener et al. (1988) and Nichols (1988). As a direct result of these and other studies, Gulf-wide state and federal regulations were implemented in 1988 to improve escapement from inshore waters and to reduce fishing pressure on offshore breeding stocks.

After eight years of protection, many researchers believe that the status of red drum stocks has improved significantly. In 1993, the Gulf of Mexico Fishery Management Council requested that the SEAMAP red drum working group develop a research plan and funding initiative to evaluate the current status of stocks. This plan, which calls for a repeat of aerial surveys (Appendix I) and mark/recapture studies completed in 1986 and 1987, was formulated in 1993 and funding was received in 1995. The proposed aerial surveys represent the first phase of this three year project.

OBJECTIVES:

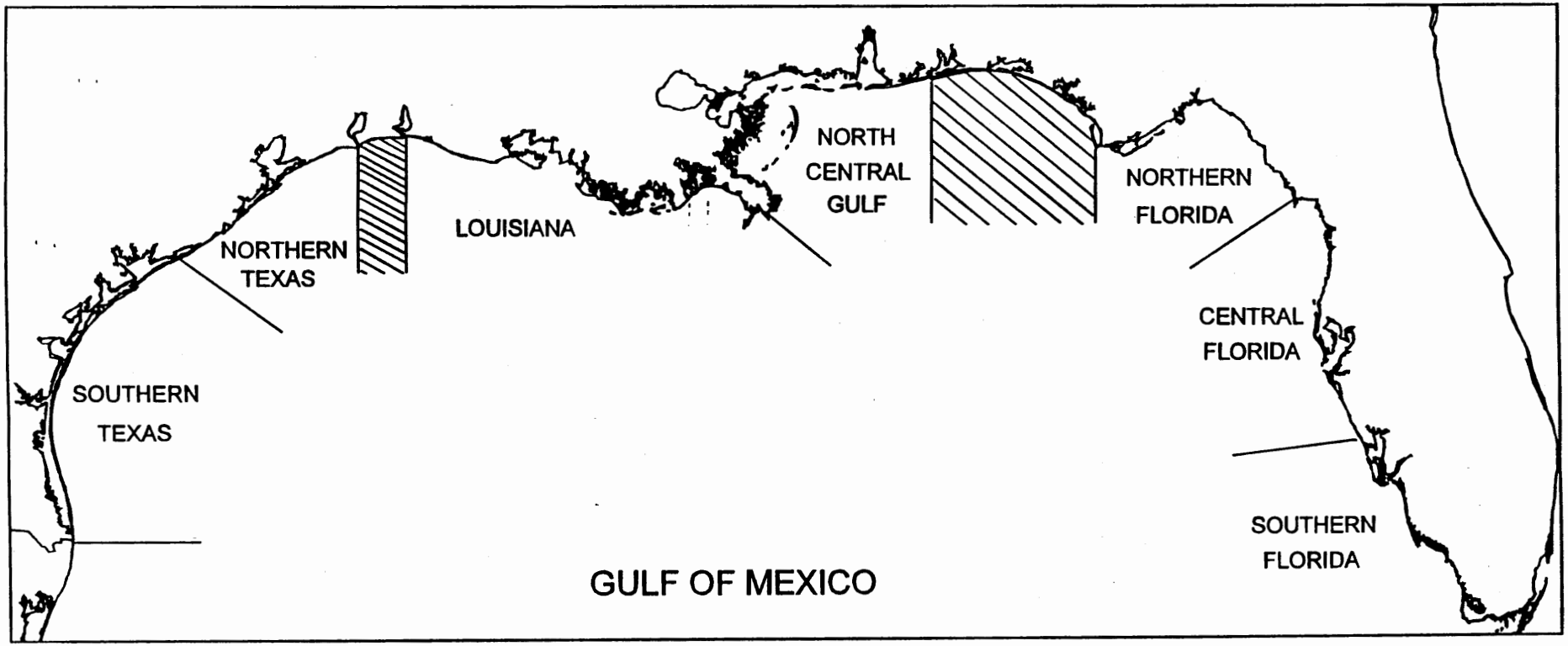
The primary objective of the aerial surveys is to estimate offshore stock biomass. These estimates will be used as the basis for selecting a tagging/recapture study area. Stock biomass estimates will be compared with abundance estimates from 1986 and 1987, to determine whether changes in stock biomass can be detected. The same survey design and protocol used in 1987 will be repeated in 1995.

METHODS:

Seven study areas will be sampled. The number of flight days allocated will be determined by the size of (square miles) of each study area. A survey window of 15 days will be allocated to each of the seven study areas. Inshore/offshore effort will be allocated on the basis of square miles to be sampled. A description of the study areas follows:

STUDY AREAS

1995 RED DRUM AERIAL SURVEY



AREAS NOT SCHEDULED FOR SURVEY

STUDY AREA	AREA (SQUARE NAUTICAL MILES)
Southern Texas	
Inland	457
Offshore	2241
Northern Texas	
Inland	1096
Offshore	2881
Louisiana	
Inland	1241
Offshore	4123
North-central Gulf of Mexico	
Inland	2467
Offshore	2272
Northern Florida	
Inland	324
Offshore	2297
Central Florida	
Offshore	2579
Southern Florida	
Offshore	2359

Surveys will be flown at an altitude of 1000 feet and a ground speed of 100 knots. The survey platforms will be two NOAA Lake Amphibian aircraft equipped with plexiglass bubbles on both sides to provide trackline visibility. Two observers aboard each aircraft will record marine life, pollution, and fishing activity on to a laptop computer. Position, speed, and heading will automatically be recorded from the aircraft's Global Positioning System (GPS). Each of the 7 study areas will be divided into transects one-half minute of latitude or longitude apart. A random starting point and direction of work (east, west, north, or south) will be selected for each survey day. Subsequent transects will be spaced 4 minutes of latitude or longitude apart depending on the orientation of the study area. Transect directions will be cardinal, approximately perpendicular to the mainland. Inshore sampling will be conducted as described in Lohoefener et al. 1988.

LIMITATIONS OF THE SURVEYS:

While it appears feasible to repeat the 1986/1987 aerial red drum surveys, several factors must be considered in subsequent comparative analyses. Perhaps the most important difference is the sighting platform. A single engine Cessna lacking trackline visibility was used during the earlier studies. We propose to

use a NOAA Lake Amphibian that provides trackline visibility during the 1995 surveys. This improvement will allow use of line-transect theory in addition to strip theory, which was the only option with the Cessna aircraft. View of the trackline may significantly improve our estimates of the sightability function, which was most closely approximated by a negative exponential model during the earlier work. Use of the negative exponential model implies that sightability of red drum schools decreases rapidly with distance from the trackline.

A potential bias created by the plexiglass bubbles that provide trackline visibility could be the glare and distortion created when viewing through plexiglass. The previous surveys conducted from Cessna aircraft were all flown with windows open on both sides to provide an unobstructed view of the water. Slight color changes can be more difficult to detect when viewing through plexiglass.

Another factor that will be important in comparing the 1986/1987 estimates with 1995 estimates is whether expected increases in the population will result in increased numbers of schools or in increased size of schools. Increased number of schools and increases in the range occupied by those schools would be most easily detected through aerial surveys. Increased size of schools without range extensions would be more difficult to quantify due to subjectivity in estimating the size of schools. Fortunately, several of the individuals that conducted the earlier surveys will also be conducting the 1995 surveys, and this should help to reduce biases in comparing estimates of the size of schools.

The 1987 survey was flown at two altitudes, 1000 and 1500 feet. In the analysis of data collected at the different altitudes, it was determined that the sightability functions were not significantly different and that the data could be combined. Because of the shape of the sightability function, there was no apparent advantage in flying higher to cover a larger area, and we selected the 1000 ft. altitude for 1995 surveys. The lower altitude is more favorable for collecting ancillary information on marine mammals and sea turtles while not affecting our ability to survey red drum schools.

Depth is another factor that is important in our ability to detect red drum schools. It was observed in the earlier studies that red drum sightings decrease with water depth, although it was never determined whether lower sighting rates reflected reduced sightability or reduced abundance. Detecting changes in status of stocks could be very difficult if expected increases in red drum stocks occur in offshore populations where sightability is severely limited. This is a potential problem that cannot readily be addressed with aerial surveys, but which must be considered in the analysis of data.

There are numerous other environmental and behavioral factors that could influence red drum sightability and create biases in biomass estimates. Most have been identified and discussed in Lohoefener et al. (1987) and Lohoefener et al. (1988). These same factors will be in play during the 1995 surveys, but it is believed that use of the same survey design, personnel, and procedures will minimize their influence.

APPENDIX I.

1986 AND 1987 RED DRUM AERIAL SURVEYS

Pilot Studies

* Northern Gulf partitioned into three large study areas; (1) Texas area from the Texas/Mexico border to Sabine Pass, (2) Sabine Pass to Alabama/Florida border, (3) Alabama/Florida border to Monroe/Dade County border

* Study area divided into 750nm^2 blocks (based on 30% actual coverage per survey day).

*Blocks extended from the mainland or barrier islands out to the 10 or 12 fathom contour lines (dependent on distance from shore)

Lohoefener et al. 1987 - Summary of 1986 work

*Study Areas

Southern Texas	Rio Grande to Corpus Christi Bay
Northern Texas	Matagorda Bay to Lake Calcasieu
Louisiana	Vermillion Bay to Mississippi River
North-central GOM	Mississippi River to Pensacola
Northern Florida	St. Andrews Bay to Cedar Key
Central Florida	Cedar Key to Charlotte Harbor
Southern Florida	San Carlos Bay to Florida Keys

* Stratified into Nearshore (shoreline to 5 fathoms), offshore (5 to 12 fathoms) and inshore (inland waters).

* Survey time allocated proportional to area within a stratum

* Systematic sampling (strips) with random start

* Distance between strips selected based on area to be covered - usually more than one nautical mile apart

* Average altitude 1500 ft. (the strip would be 1306 m wide with 314 m directly under the aircraft not viewable leaving a "991 m 100% effective strip")

Lohoefener et al. 1988

* Same study areas as 1986 - selected for logistical reasons

* Sizes of offshore study areas were estimated using the mean

offshore transect length per study period and the study area boundaries

* 1987 - Spring through Fall

S. Texas	21 days	8/9 days
N. Texas	21 days	6/6 days
Louisiana	21 days	8/7(summer)/8 days
N-C Gulf	21 days	10/13 days
N. Florida	21 days	10(summer)/6 days
C. Florida	21 days	7(fall) days
S. Florida	21 days	11(summer)/9 days
TOTAL	147 days/season	32(spring)/28(summer)/58(fall)

* Study period per study area was randomly selected - 21 study days per area.

* Transect headings were cardinal directions approximately perpendicular to the mainland. Random starting point for each survey day - subsequent transects were four minutes latitude or longitude apart

* Survey altitudes were 1000 and 1500 ft.

* Size of schools were estimated through use of five size categories

SOUTH TEXAS STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	260350	971300	260350	970200	970900	9.9
2	260750	971700	260750	970200	971000	13.5
3	261150	971750	261150	970250	971000	13.5
4	261550	972000	261550	970200	971100	16.2
5	261950	972050	261950	970350	971150	15.3
6	262350	972350	262350	970350	971400	18.0
7	262750	972500	262750	970500	971400	18.0
8	263150	972500	263150	970550	971500	17.6
9	263550	972700	263550	970700	971650	18.0
10	263950	972750	263950	971000	971800	15.8
11	264350	972700	264350	971100	971950	14.4
12	264750	972900	264750	971350	972050	14.0
13	265150	972800	265150	971500	972150	11.7
14	265550	973400	265550	971550	972250	16.7
15	265950	973400	265950	971550	972250	16.7
16	270350	972800	270350	971550	972250	11.2
17	270750	972650	270750	971550	972250	9.8
18	271150	972750	271150	971500	972300	11.2
19	271550	973850	271550	971450	972200	21.4
20	271950	972450	271950	971300	972050	10.3
21	272350	972350	272350	971000	971850	12.1
22	272750	972250	272750	970850	971700	12.5
23	273150	972050	273150	970550	971450	13.4
24	273550	971750	273550	970200	971400	13.8
25	273950	971750	273950	970000	971050	15.6
26	274350	972000	274350	965750	970850	20.1
27	274750	972450	274750	965300	970500	28.1
28	275150	971000	275150	964800	970350	19.6

SOUTH TEXAS STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	275550	970800	275550	964400	965900	21.4
						449.8

SOUTH TEXAS STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	260000	971300	260000	970200	970900	9.9
2	260400	971700	260400	970200	971000	13.5
3	260800	971750	260800	970250	971000	13.5
4	261200	972000	261200	970200	971100	16.2
5	261600	972050	261600	970350	971150	15.3
6	262000	972350	262000	970350	971400	18.0
7	262400	972500	262400	970500	971400	18.0
8	262800	972500	262800	970550	971500	17.6
9	263200	972700	263200	970700	971650	18.0
10	263600	972750	263600	971000	971800	15.8
11	264000	972700	264000	971100	971950	14.4
12	264400	972900	264400	971350	972050	14.0
13	264800	972800	264800	971500	972150	11.7
14	265200	973400	265200	971550	972250	16.7
15	265600	973400	265600	971550	972250	16.7
16	270000	972800	270000	971550	972250	11.2
17	270400	972650	270400	971550	972250	9.8
18	270800	972750	270800	971500	972300	11.2
19	271200	973850	271200	971450	972200	21.4
20	271600	972450	271600	971300	972050	10.3
21	272000	972350	272000	971000	971850	12.1
22	272400	972250	272400	970850	971700	12.5
23	272800	972050	272800	970550	971450	13.4
24	273200	971750	273200	970200	971400	13.8
25	273600	971750	273600	970000	971050	15.6
26	274000	972000	274000	965750	970850	20.1
27	274400	972450	274400	965300	970500	28.1
28	274800	971000	274800	964800	970350	19.6

SOUTH TEXAS STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	275200	970800	275200	964400	965900	21.4
						449.8

NORTH TEXAS STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	280300	970300	280300	963400	965150	25.7
2	280700	970500	280700	962800	964700	32.7
3	281100	965100	281100	962300	964150	24.8
4	281500	964800	281500	961500	963500	29.2
5	281900	964000	281900	961650	962750	20.8
6	283500	962300	282400	962300	0	11.0
7	283700	961900	282200	961900	282600	15.0
8	283900	961500	281500	961500	282850	23.9
9	283550	961100	281650	961100	283050	18.9
10	283750	960700	281900	960700	283250	18.4
11	283900	960300	282050	960300	283450	18.4
12	283600	965900	282250	965900	0	13.5
13	284400	955500	282400	955500	283900	19.9
14	284250	955100	282400	955100	283750	18.4
15	284450	954700	282600	954700	284100	18.4
16	284500	954300	282850	954300	284250	16.4
17	284500	953900	282900	953900	0	15.9
18	284700	953500	283250	953500	0	14.5
19	284900	953100	283450	953100	0	14.5
20	285150	952700	283700	952700	0	14.5
21	285150	952300	283750	952300	0	14.0
22	285500	951900	283950	951900	0	15.4
23	285900	951500	284250	951500	0	16.4
24	290200	951100	284250	951100	0	19.4
25	291050	950700	284450	950700	290550	25.9
26	291250	950300	284850	950300	290850	23.5
27	291600	945900	285100	945900	291050	24.9
28	291850	945500	285250	945500	291350	25.9

NORTH TEXAS STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	292800	945100	285500	945100	291500	32.9
30	292900	944700	285750	944700	291700	31.4
31	293300	944300	290500	944300	292450	27.9
32	293250	943900	290700	943900	292400	22.0
33	293400	943500	290750	943500	292800	26.4
34	293350	943100	291050	943100	293000	20.5
35	293150	942700	291150	942700	0	19.9
36	293350	942300	291300	942300	0	20.4
37	293500	941900	291400	941900	0	20.9
38	293700	941500	291550	941500	0	21.4
39	293750	941100	291750	941100	0	19.9
40	293950	940700	291850	940700	0	20.9
41	294050	940300	292000	940300	0	20.4
42	294100	935900	292100	935900	0	19.9
43	295350	935500	292100	935500	294100	32.4
44	295900	935100	292100	935110	294100	37.9
45	295850	934700	292350	934700	294350	34.9
46	294450	934300	292450	934300	0	19.9
47	294500	933900	292500	933900	0	19.9
48	294550	933500	292550	933500	0	19.9
49	294600	933100	292600	933100	0	19.9
50	294650	932700	292650	932700	0	19.9
51	295300	932300	292600	932300	294600	26.9
52	300300	931900	292650	931900	294650	36.4
53	295650	931500	292700	931500	294700	29.4
						1172.4

NORTH TEXAS STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	280100	970300	280100	963400	965150	25.7
2	280500	970500	280500	962800	964700	32.7
3	280900	965100	280900	962300	964150	24.8
4	281300	964800	281300	961500	963500	29.2
5	281700	964000	281700	961650	962750	20.8
6	283500	962500	282400	962500	0	11.0
7	283700	962100	282200	962100	282600	15.0
8	283900	961700	281500	961700	282850	23.9
9	283550	961300	281650	961300	283050	18.9
10	283750	960900	281900	960900	283250	18.4
11	283900	960500	282050	960500	283450	18.4
12	283600	960100	282250	960100	0	13.5
13	284400	955700	282400	955700	283900	19.9
14	284250	955300	282400	955300	283750	18.4
15	284450	954900	282600	954900	284100	18.4
16	284500	954500	282850	954500	284250	16.4
17	284500	954100	282900	954100	0	15.9
18	284700	953700	283250	953700	0	14.5
19	284900	953300	283450	953300	0	14.5
20	285150	952900	283700	952900	0	14.5
21	285150	952500	283750	952500	0	14.0
22	285500	952100	283950	952100	0	15.4
23	285900	951700	284250	951700	0	16.4
24	290200	951300	284250	951300	0	19.4
25	291050	950900	284450	950900	290550	25.9
26	291250	950500	284850	950500	290850	23.5
27	291600	950100	285100	950100	291050	24.9
28	291850	945700	285250	945700	291350	25.9

NORTH TEXAS STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	292800	945300	285500	945300	291500	32.9
30	292900	944900	285750	944900	291700	31.4
31	293300	944500	290500	944500	292450	27.9
32	293250	944100	290700	944100	292400	22.0
33	293400	943700	290750	943700	292800	26.4
34	293350	943300	291050	943300	293000	20.5
35	293150	942900	291150	942900	0	19.9
36	293350	942500	291300	942500	0	20.4
37	293500	942100	291400	942100	0	20.9
38	293700	941700	291550	941700	0	21.4
39	293750	941300	291750	941300	0	19.9
40	293950	940900	291850	940900	0	20.9
41	294050	940500	292000	940500	0	20.4
42	294100	940100	292100	940100	0	19.9
43	295350	935700	292100	935700	294100	32.4
44	295900	935300	292100	935300	294100	37.9
45	295850	934900	292350	934900	294350	34.9
46	294450	934500	292450	934500	0	19.9
47	294500	934100	292500	934100	0	19.9
48	294550	933700	292550	933700	0	19.9
49	294600	933300	292600	933300	0	19.9
50	294650	932900	292650	932900	0	19.9
51	295300	932500	292600	932500	294600	26.9
52	300300	932100	292650	932100	294650	36.4
53	295650	931700	292700	931700	294700	29.4
						1172.4

LOUISIANA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	293250	915800	291250	915800	0	19.90
2	293100	915400	291100	915400	0	19.90
3	292850	915000	290850	915000	0	19.90
4	292900	914600	290900	914600	0	19.90
5	292750	914200	290750	914200	0	19.90
6	292600	913800	290600	913800	0	19.90
7	292450	913400	290450	913400	0	19.90
8	293200	913000	290300	913000	292300	28.90
9	293100	912600	290150	912600	292150	29.40
10	293050	912200	290000	912200	292000	30.40
11	292850	911800	285500	911800	291500	33.40
12	292600	911400	285350	911400	291350	32.40
13	291300	911000	285300	911000	0	19.90
14	291100	910600	285100	910600	0	19.90
15	291050	910200	285050	910200	0	19.90
16	291050	905800	284650	905800	0	23.90
17	290250	905400	284300	905400	0	19.40
18	290200	905000	284200	905000	0	19.90
19	290200	904600	284200	904600	0	19.90
20	290300	904200	284300	904200	0	19.90
21	291250	903800	284350	903800	290350	28.90
22	291200	903400	284400	903400	290400	27.90
23	291300	903000	284400	903000	290400	28.90
24	291100	902600	284450	902600	290300	26.40
25	291350	902200	284450	902200	290350	28.90
26	291350	901800	284950	901800	290450	23.90
27	290550	901400	285250	901400	0	13.00
28	290600	901000	285450	901000	0	11.50

LOUISIANA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	290850	900600	285700	900600	0	11.50
30	291200	900200	285900	900200	0	13.00
31	292500	895800	290200	895800	291450	22.90
32	292600	895400	290500	895400	291700	20.90
33	291800	895000	290700	895000	0	11.00
34	291800	894600	290700	894600	0	11.00
35	291750	894200	290550	894200	0	12.00
36	291600	893800	290250	893800	0	13.50
37	291450	893400	285950	893400	0	15.00
38	291300	893000	285850	893000	0	14.50
39	290900	892600	285100	892600	0	17.90
						809.1

LOUISIANA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	293250	915900	291250	915900	0	19.90
2	293100	915500	291100	915500	0	19.90
3	292850	915100	290850	915100	0	19.90
4	292900	914700	290900	914700	0	19.90
5	292750	914300	290750	914300	0	19.90
6	292600	913900	290600	913900	0	19.90
7	292450	913500	290450	913500	0	19.90
8	293200	913100	290300	913100	292300	28.90
9	293100	912700	290150	912700	292150	29.40
10	293050	912300	290000	912300	292000	30.40
11	292850	911900	285500	911900	291500	33.40
12	292600	911500	285350	911500	291350	32.40
13	291300	911100	285300	911100	0	19.90
14	291100	910700	285100	910700	0	19.90
15	291050	910300	285050	910300	0	19.90
16	291050	915900	284650	915900	0	23.90
17	290250	905500	284300	905500	0	19.40
18	290200	905100	284200	905100	0	19.90
19	290200	904700	284200	904700	0	19.90
20	290300	904300	284300	904300	0	19.90
21	291250	903900	284350	903900	290350	28.90
22	291200	903500	284400	903500	290400	27.90
23	291300	903100	284400	903100	290400	28.90
24	291100	902700	284450	902700	290300	26.40
25	291350	902300	284450	902300	290350	28.90
26	291350	901900	284950	901900	290450	23.90
27	290550	901500	285250	901500	0	13.00
28	290600	901100	285450	901100	0	11.50

LOUISIANA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	290850	900700	285700	900700	0	11.50
30	291200	900300	285900	900300	0	13.00
31	292500	895900	290200	895900	291450	22.90
32	292600	895500	290500	895500	291700	20.90
33	291800	895100	290700	895100	0	11.00
34	291800	894700	290700	894700	0	11.00
35	291750	894300	290550	894300	0	12.00
36	291600	893900	290250	893900	0	13.50
37	291450	893500	285950	893500	0	15.00
38	291300	893100	285850	893100	0	14.50
39	290900	892700	285100	892700	0	17.90
						809.1

NORTHERN GULF OF MEXICO STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	301100	893000	300500	893000	0	6.0
2	301300	892600	300300	892600	0	10.0
3	301500	892200	300300	892200	0	12.0
4	302150	891800	300600	891800	0	15.5
5	301900	891400	300800	891400	0	11.0
6	302000	891000	300500	891000	0	15.0
7	302150	890600	300500	890600	301250	16.5
8	302250	890200	300500	890200	301300	17.4
9	302300	885800	300500	885800	301250	17.9
10	302300	885400	300500	885400	301300	17.9
11	302450	885000	300500	885000	301400	19.4
12	302150	884600	300500	884600	301500	16.5
13	302050	884200	300500	884200	301400	15.5
14	302150	883800	300500	883800	301300	16.5
15	302100	883400	300200	883400	301300	18.9
16	301900	883000	300250	883000	301300	16.5
17	302150	882600	300200	882600	301200	19.4
18	302350	882200	300200	882200	301300	21.4
19	302200	881800	300250	881800	301300	19.4
20	302200	881400	300300	881400	301400	18.9
21	302000	881000	300200	881000	301450	17.9
22	302700	880600	300100	880600	301400	25.9
23	302400	880200	300100	880200	301300	22.9
24	302400	875800	300000	875800	301400	23.9
25	302400	875400	300150	875400	301400	22.4
26	302100	875000	300150	875000	301400	19.4
27	301800	874600	300200	874600	301400	16.0
28	301500	874200	300300	874200	0	12.0

NORTHERN GULF OF MEXICO STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	301500	873800	300500	873800	0	10.0
30	301850	873400	300700	873400	301600	11.5
31	302000	873000	300800	873000	301650	12.0
32	300200	890300	300200	883350	885100	25.6
33	295800	890300	295800	883700	884950	22.8
34	295400	890250	295400	883700	884950	22.3
35	295000	890250	295000	883750	885000	21.9
36	294600	890300	294600	883700	885150	22.8
37	294200	890500	294200	883800	885300	23.7
38	293800	890850	293800	883550	885600	28.9
39	293400	891250	293400	883800	890000	30.2
40	293000	891550	293000	884200	890400	29.4
41	292600	891850	292600	884750	891300	27.2
42	292200	892100	292200	885350	891400	24.1
43	291800	891600	291800	885800	0	15.8
44	291400	890750	291400	885700	0	9.2
45	291000	890200	291000	885650	0	4.8
46	290600	890350	290600	885850	0	4.4
47	290200	891000	290200	890350	0	5.7
						834.3

NORTHERN GULF OF MEXICO STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	301100	892700	300500	892700	0	6.0
2	301300	892300	300300	892300	0	10.0
3	301500	891900	300300	891900	0	12.0
4	302150	891500	300600	891500	0	15.5
5	301900	891100	300800	891100	0	11.0
6	302000	890700	300500	890700	0	15.0
7	302150	890300	300500	890300	301250	16.5
8	302250	885900	300500	885900	301300	17.5
9	302300	885500	300500	885500	301250	18.0
10	302300	885100	300500	885100	301300	18.0
11	302450	884700	300500	884700	301400	19.4
12	302150	884300	300500	884300	301500	16.5
13	302050	883900	300500	883900	301400	15.5
14	302150	883500	300500	883500	301300	16.5
15	302100	883100	300200	883100	301300	18.9
16	301900	882700	300250	882700	301300	16.5
17	302150	882300	300200	882300	301200	19.4
18	302350	881900	300200	881900	301300	21.4
19	302200	881500	300250	881500	301300	19.4
20	302200	881100	300300	881100	301400	18.9
21	302000	880700	300200	880700	301450	18.0
22	302700	880300	300100	880300	301400	25.9
23	302400	875900	300100	875900	301300	22.9
24	302400	875500	300000	875500	301400	23.9
25	302400	875100	300150	875100	301400	22.4
26	302100	874700	300150	874700	301400	19.4
27	301800	874300	300200	874300	301400	16.0
28	301500	873900	300300	873900	0	12.0

NORTHERN GULF OF MEXICO STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	301500	873500	300500	873500	0	10.0
30	301850	873100	300700	873100	301600	11.5
31	302000	872700	300800	872700	301650	12.0
32	300400	890300	300400	883350	885100	25.6
33	300000	890300	300000	883700	884950	22.6
34	295600	890250	295600	883700	884950	22.3
35	295200	890250	295200	883750	885000	21.9
36	294800	890300	294800	883700	885150	22.8
37	294400	890500	294400	883800	885300	23.7
38	294000	890850	294000	883550	885600	28.9
39	293600	891250	293600	883800	890000	30.2
40	293200	891550	293200	884200	890400	29.4
41	292800	891850	292800	884750	891300	27.2
42	292400	892100	292400	885350	891400	24.1
43	292000	891600	292000	885800	0	15.8
44	291600	890750	291600	885700	0	9.2
45	291200	890200	291200	885650	0	4.8
46	290800	890350	290800	885850	0	4.4
47	290400	891000	290400	890350	0	5.7
						834.5

NORTH FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	301500	855600	301000	855600	0	5.0
2	301200	855200	300700	855200	0	5.0
3	301700	854800	300400	854800	301000	13.0
4	301650	854400	300000	854400	300750	16.5
5	301000	854000	295500	854000	300500	15.0
6	300750	853600	295300	853600	300300	14.5
7	300750	853200	294100	853200	295850	26.4
8	300200	852800	293700	852800	295700	24.9
9	300350	852400	292600	852400	294450	37.4
10	295450	852000	292800	852000	294000	26.4
11	294000	851600	292000	851600	0	19.9
12	294100	851200	292500	851200	294000	16.0
13	294300	850800	292350	850800	293850	19.4
14	294300	850400	292300	850400	293600	19.9
15	294300	850000	292350	850000	293500	19.4
16	294600	845600	292500	845600	293700	20.9
17	294800	845200	292700	845200	294000	20.9
18	294600	844800	292800	844800	294100	17.9
19	294800	844400	292750	844400	294350	20.4
20	295000	844000	293000	844000	294700	19.9
21	295300	843600	293100	843600	294750	21.9
22	295500	843200	293450	843200	0	20.4
23	295600	842800	293600	842800	0	19.9
24	295900	842400	293400	842400	295500	24.9
25	300500	842000	294500	842000	0	19.9
26	300700	841600	294700	841600	0	19.9
27	300700	841200	294700	841200	0	19.9
28	300550	840800	294600	840800	0	19.4

NORTH FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	300600	840400	294700	840400	0	18.9
30	300500	840000	294500	840000	0	19.9
31	300150	835350	300150	840000	0	5.6
32	295750	834650	295750	840000	0	11.7
33	295350	834000	295350	840000	0	17.5
34	294950	833700	294950	840000	0	20.2
35	294550	833400	294550	835700	0	20.2
36	294150	833000	294150	835600	0	22.8
37	293750	832400	293750	834800	0	21.0
38	293350	832400	293350	834600	0	19.3
39	292950	832000	292950	834300	0	20.2
40	292550	831300	292550	833700	0	21.0
41	292150	831100	292150	833500	0	21.0
42	291750	830900	291750	833300	0	21.0
43	291350	830450	291350	832700	0	19.7
44	290950	830400	290950	832600	0	19.3
45	290550	824800	290550	831000	0	19.3
46	290150	824600	290150	830700	0	18.4
						881.9

NORTH FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	301500	855850	301000	855850	0	5.00
2	301200	855450	300700	855450	0	5.00
3	301700	855050	300400	855050	301000	13.00
4	301650	854650	300000	854650	300750	16.50
5	301000	854250	295500	854250	300500	15.00
6	300750	853850	295300	853850	300300	14.50
7	300750	853450	294100	853450	295850	26.40
8	300200	853050	293700	853050	295700	24.90
9	300350	852650	292600	852650	294450	37.40
10	295450	852250	292800	852250	294000	26.40
11	294000	851850	292000	851850	0	19.90
12	294100	851450	292500	851450	294000	16.00
13	294300	851050	292350	851050	0	19.40
14	294300	850650	292300	850650	293600	19.90
15	294300	850250	292350	850250	293500	19.40
16	294600	845850	292500	845850	293700	20.90
17	294800	845450	292700	845450	294000	20.90
18	294600	845050	292800	845050	294100	17.90
19	294800	844650	292750	844650	294350	20.40
20	295000	844250	293000	844250	294700	19.90
21	295300	843850	293100	843850	294750	21.90
22	295500	843450	293450	843450	0	20.40
23	295600	843050	293600	843050	0	19.90
24	295900	842650	293400	842650	295500	24.90
25	300500	842250	294500	842250	0	19.90
26	300700	841850	294700	841850	0	19.90
27	300700	841450	294700	841450	0	19.90
28	300550	841050	294600	841050	0	19.40

NORTH FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	300600	840650	294700	840650	0	18.90
30	300500	840250	294500	840250	0	19.90
31	300400	835350	300400	840000	0	5.60
32	300000	834650	300000	840000	0	11.70
33	295600	834000	295600	840000	0	17.50
34	295200	833700	295200	840000	0	20.20
35	294800	833400	294800	835700	0	20.20
36	294400	833000	294400	835600	0	22.80
37	294000	832400	294000	834800	0	21.00
38	293600	832400	293600	834600	0	19.30
39	293200	832000	293200	834300	0	20.20
40	292800	831300	292800	833700	0	21.00
41	292400	831100	292400	833500	0	21.00
42	292000	830900	292000	833300	0	21.00
43	291600	830450	291600	832700	0	19.70
44	291200	830400	291200	832600	0	19.30
45	290800	824800	290800	831000	0	19.30
46	290400	824600	290400	830700	0	18.40
47	290000	824600	290000	830700	0	18.40
						900.3

CENTRAL FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	285900	824400	285900	830600	0	19.50
2	285500	824150	285500	830600	0	21.70
3	285100	824200	285100	830750	0	22.60
4	284700	824200	284700	830400	0	19.50
5	284300	823950	284300	830400	0	21.70
6	283900	823950	283900	830150	0	19.50
7	283500	823950	283500	830150	0	19.50
8	283100	823950	283100	830200	0	19.90
9	282700	824000	282700	830300	0	20.30
10	282300	824100	282300	830500	0	21.20
11	281900	824400	281900	830500	0	18.60
12	281500	824550	281500	830800	0	19.90
13	281100	824850	281100	831000	0	19.00
14	280700	824700	280700	830800	0	18.60
15	280300	824700	280300	830800	0	18.60
16	275900	823800	275900	831150	824750	29.90
17	275500	822500	275500	831250	825100	42.40
18	275100	822400	275100	831300	825100	43.70
19	274700	822400	274700	831100	824700	42.00
20	274300	822850	274300	830650	824500	33.90
21	273900	823300	273900	830500	824500	28.60
22	273500	823450	273500	830500	824350	27.20
23	273100	823700	273100	830300	824400	23.20
24	272700	824200	272700	830450	0	20.10
25	272300	823400	272300	830300	823900	25.90
26	271900	823400	271900	830000	823600	23.20
27	271500	823300	271500	825400	0	18.70
28	271100	823000	271100	824900	0	17.00

CENTRAL FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	270700	822850	270700	824600	0	15.60
30	270300	822700	270300	824600	0	17.00
31	265900	822400	265900	824500	0	18.90
32	265500	820500	265500	824100	822200	32.40
33	265100	820400	265100	823900	821950	31.50
34	264700	820400	264700	823900	821600	31.50
35	264300	820500	264300	823800	821600	29.70
36	263900	820400	263900	823650	821500	29.30
37	263500	820300	263500	823600	821400	29.70
38	263100	820000	263100	823350	821200	30.20
						941.7

CENTRAL FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	285850	824400	285850	830600	0	19.50
2	285450	824150	285450	830600	0	21.70
3	285050	824200	285050	830750	0	22.60
4	284650	824200	284650	830400	0	19.50
5	284250	823950	284250	830400	0	21.70
6	283850	823950	283850	830150	0	19.50
7	283450	823950	283450	830150	0	19.50
8	283050	823950	283050	830200	0	19.90
9	282650	824000	282650	830300	0	20.30
10	282250	824100	282250	830500	0	21.20
11	281850	824400	281850	830500	0	18.60
12	281450	824550	281450	830800	0	19.90
13	281050	824850	281050	831000	0	19.00
14	280650	824700	280650	830800	0	18.60
15	280250	824700	280250	830800	0	18.60
16	275850	823800	275850	831150	824750	29.90
17	275450	822500	275450	831250	825100	42.40
18	275050	822400	275050	831300	825100	43.70
19	274650	822400	274650	831100	824700	42.00
20	274250	822850	274250	830650	824500	33.90
21	273850	823300	273850	830500	824500	28.60
22	273450	823450	273450	830500	824350	27.20
23	273050	823700	273050	830300	824400	23.20
24	272650	824200	272650	830450	0	20.10
25	272250	823400	272250	830300	823900	25.90
26	271850	823400	271850	830000	823600	23.20
27	271450	823300	271450	825400	0	18.70
28	271050	823000	271050	824900	0	17.00

CENTRAL FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	270650	822850	270650	824600	0	15.60
30	270250	822700	270250	824600	0	17.00
31	265850	822400	265850	824500	0	18.90
32	265450	820500	265450	824100	822200	32.40
33	265050	820400	265050	823900	821950	31.50
34	264650	820400	264650	823900	821600	31.50
35	264250	820500	264250	823800	821600	29.70
36	263850	820400	263850	823650	821500	29.30
37	263450	820300	263450	823600	821400	29.70
38	263050	820000	263050	823350	821200	30.20
						941.7

SOUTH FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	262650	815650	262650	823300	0	32.9
2	262250	815050	262250	821500	0	22.1
3	261850	815100	261850	821300	0	19.8
4	261450	814900	261450	821300	0	21.6
5	261050	814900	261050	821100	0	19.8
6	260650	814900	260650	821200	0	20.7
7	260250	814750	260250	821000	0	20.3
8	255850	814500	255850	820850	0	21.3
9	255450	814350	255450	820650	0	20.9
10	255050	813100	255050	815300	0	20.0
11	254650	812200	254650	814500	0	20.9
12	254250	812000	254250	814250	0	20.4
13	253850	811600	253850	813700	0	19.1
14	253450	811400	253450	813600	0	20.0
15	253050	811300	253050	813500	0	20.0
16	252650	811000	252650	813300	0	20.9
17	252250	810800	252250	813000	0	20.0
18	251850	810000	251850	812700	810900	24.5
19	251450	811000	251450	813300	0	20.9
20	251050	810900	251050	813100	0	20.0
21	243800	830150	244400	830150	0	6.0
22	243750	825750	244400	825750	0	6.5
23	243750	825350	244400	825350	0	6.5
24	243750	824950	244450	824950	0	7.0
25	243650	824550	244150	824550	0	5.0
26	243650	824150	243750	824150	0	1.0
27	243650	823750	243850	823750	0	2.0
28	243550	823350	244100	823350	0	5.5

SOUTH FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	243550	822950	244300	822950	0	7.5
30	243500	822550	244350	822550	0	8.5
31	243500	822150	244400	822150	0	9.0
32	243500	821750	244400	821750	0	9.0
33	243450	821350	244450	821350	0	10.0
34	243400	820950	244550	820950	0	11.5
35	243400	820550	244950	820550	0	15.4
36	243350	820150	245400	820150	0	20.4
37	243350	815750	245350	815750	0	19.9
38	243350	815350	245300	815350	0	19.4
39	243350	814950	245300	814950	0	19.4
40	243400	814550	245400	814550	0	19.9
41	243500	814150	245500	814150	0	19.9
42	243700	813750	245850	813750	0	21.4
43	244150	813350	250200	813350	0	20.4
44	244100	812950	250100	812950	0	19.9
45	244250	812550	250300	812550	0	20.4
46	244200	812150	250250	812150	0	20.5
47	243950	811750	245950	811750	0	19.9
48	244100	811350	250150	811350	0	20.4
49	244150	810950	250150	810950	0	19.9
50	244200	810550	250300	810550	0	20.9
51	244300	810150	250350	810150	0	20.4
52	244600	805750	250600	805750	0	19.9
53	244700	805350	250700	805350	0	19.9
54	244900	804950	251000	804950	0	20.9
55	245050	804550	250950	804550	0	18.9
56	245300	804150	251050	804150	0	17.4

SOUTH FLORIDA STUDY AREA

SURVEY #1

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
57	245600	803750	251200	803750	0	15.9
58	245850	803350	251200	803350	0	13.5
						985.9

SOUTH FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
29	243550	823550	244300	823550	0	7.5
30	243500	823150	244350	823150	0	8.5
31	243500	822750	244400	822750	0	9.0
32	243500	822350	244400	822350	0	9.0
33	243450	821950	244450	821950	0	10.0
34	243400	821550	244550	821550	0	11.5
35	243400	821150	244950	821150	0	15.4
36	243350	820750	245400	820750	0	20.4
37	243350	820350	245350	820350	0	19.9
38	243350	815950	245300	815950	0	19.4
39	243350	815550	245300	815550	0	19.4
40	243400	815150	245400	815150	0	19.9
41	243500	814750	245500	814750	0	19.9
42	243700	814350	245850	814350	0	21.4
43	244150	813950	250200	813950	0	20.4
44	244100	813550	250100	813550	0	19.9
45	244250	813150	250300	813150	0	20.4
46	244200	812750	250250	812750	0	20.5
47	243950	812350	245950	812350	0	19.9
48	244100	811950	250150	811950	0	20.4
49	244150	811550	250150	811550	0	19.9
50	244200	811150	250300	811150	0	20.9
51	244300	810750	250350	810750	0	20.4
52	244600	810350	250600	810350	0	19.9
53	244700	805950	250700	805950	0	19.9
54	244900	805550	251000	805550	0	20.9
55	245050	805150	250950	805150	0	18.9
56	245300	804750	251050	804750	0	17.4

SOUTH FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
1	262850	815650	262850	823300	0	32.9
2	262450	815050	262450	821500	0	22.1
3	262050	815100	262050	821300	0	19.8
4	261650	814900	261650	821300	0	21.6
5	261250	814900	261250	821100	0	19.8
6	260850	814900	260850	821200	0	20.7
7	260450	814750	260450	821000	0	20.3
8	260050	814500	260050	820850	0	21.2
9	255650	814350	255650	820650	0	20.9
10	255250	813100	255250	815300	0	20.0
11	254850	812200	254850	814500	0	20.9
12	254450	812000	254450	814250	0	20.4
13	254050	811600	254050	813700	0	19.1
14	253650	811400	253650	813600	0	20.0
15	253250	811300	253250	813500	0	20.0
16	252850	811000	252850	813300	0	20.9
17	252450	810800	252450	813000	0	20.0
18	252050	810000	252050	812700	810900	24.5
19	251650	811000	251650	813300	0	20.9
20	251250	810900	251250	813100	0	20.0
21	250850	810850	250850	812850	0	18.2
22	243750	830350	244400	830350	0	6.5
23	243750	825950	244400	825950	0	6.5
24	243750	825550	244400	825550	0	7.0
25	243650	825150	244150	825150	0	5.0
26	243650	824750	243750	824750	0	1.0
27	243650	824350	243850	824350	0	2.0
28	243550	823950	244100	823950	0	5.5

SOUTH FLORIDA STUDY AREA

SURVEY #2

TRANSECT #	INSHORE LATITUDE	INSHORE LONGITUDE	OFFSHORE LATITUDE	OFFSHORE LONGITUDE	HABITAT CHANGE	LENGTH (nm)
57	245600	804350	251200	804350	0	15.9
58	245850	803950	251200	803950	0	13.5
59	245800	803550	251200	803550	0	13.9
60	250140	803150	251300	803150	0	11.6
						1023.5

Aerial Survey Data Base Description
Southeast Fisheries Science Center
(August 1995)

	Variable	Field Width	Field Position
1.	CARD	1	1
2.	STUDY BLOCK	2	2- 3
3.	PART	2	4- 5
4.	DAY	2	6- 7
5.	MONTH	2	8- 9
6.	YEAR	2	10-11
7.	HOUR	2	12-13
8.	MINUTE	2	14-15
9.	SECOND	2	16-17
10.	LATITUDE	6	18-23
11.	LONGITUDE	6	24-29
12.	TRACK	3	30-32
13.	SPEED	3	33-35
14.	GPS STATUS	1	36
15.	LEFT OBSERVER	2	37-38
16.	RIGHT OBSERVER	2	39-40
17.	DATA RECORDER	2	41-42
18.	ALTITUDE	4	43-46
19.	WEATHER	1	47
20.	SEA STATE	1	48
21.	TURBIDITY	1	49
22.	SUN PENETRATION	1	50
23.	GLARE	1	51
24.	WATER COLOR	1	52
25.	WATER TEMPERATURE	3	53-55
26.	SIGHTING OBSERVER	1	56
27.	SIGHTING ANGLE	2	57-58
28.	SIGHTING INCREMENT	1	59
29.	SPECIES 1	4	60-63
30.	HERD OR SCHOOL SIZE 1	4	64-67
31.	NUMBER OF CALVES 1	3	68-70
32.	SPECIES 2	4	71-74
33.	HERD OR SCHOOL SIZE 2	4	75-78
34.	NUMBER OF CALVES 2	3	79-81
35.	SPECIES 3	4	82-85
36.	HERD OR SCHOOL SIZE 3	4	86-89
37.	NUMBER OF CALVES 3	3	90-92
38.	EFFORT STATUS	1	93
39.	TRANSECT NUMBER	2	94-95
40.	HABITAT	1	96

Variable Descriptions

1. CARD

A - begin a study area (2 character identifier)
B - begin a transect
C - environment change (weather, sea state, etc.)
D - sighting (marine mammal, sea turtle, bird, fish, pollution)
E - going off effort (while "on" a transect)
F - "off effort" sighting (sighting not to be included in the density estimate, e.g., sightings between transects, non-associated species sighted while investigating an "on-effort" sighting)
G - back on effort
H - end a transect
I - end the study area
J - end the data file

2. STUDY BLOCK (enter 00 while in transit to, from and between study areas)

3. PART (To avoid confusion if several data files are made during the same day)

   P1, P2, ... P9

4. DAY

5. MONTH

6. YEAR

7. HOUR

8. MINUTES

9. SECONDS

10. LATITUDE (to hundredths of a minute)

11. LONGITUDE (because longitudes in our area are less than 100, the leading zero is dropped)

12. TRACK (heading, 000-359°)

13. GROUND SPEED (nautical miles per hour)

14. GPS STATUS

    0 or A - good GPS signal (Flag depends on GPS type)
    1 or V - warning condition (position may not be accurate)

15. LEFT OBSERVER (each observer who participates in a SEFC marine mammal survey is assigned a unique number less than 99, see Appendix 1)

16. RIGHT OBSERVER

17. DATA RECORDER

18. ALTITUDE (in feet)

19. WEATHER

    1 - clear (0-10% cloud cover)
    2 - partly cloudy (10-50%)
    3 - cloudy (50-100%)
    4 - light rain
    5 - clear with haze
    6 - partly cloudy with haze
    7 - cloudy with haze
    8 - fog or low clouds

20. SEA STATE (not the Beaufort Scale)

    0 - slick calm, mirror like
    1 - small waves, few whitecaps
    2 - whitecaps 0-33%, waves 1-2 feet
    3 - whitecaps 33-50%, waves 2-3 feet
    4 - whitecaps 50-65%, waves 3-5 feet
    5 - Whitecaps >65%, waves >5 feet (too rough to survey)

21. WATER TURBIDITY

    0 - good
    1 - fair
    2 - poor

22. WATER COLOR

    1 - brown
    2 - green
    3 - gray
    4 - blue
    5 - blue\green
    6 - brown\gray
    7 - green\gray
    8 - green\brown
    9 - dark green

23. GLARE-at least 50% hindrance of normal viewing area

    0 - no hindrance to sighting
    1 - left side - hindrance
    2 - right side - hindrance
    3 - both sides - hindrance

24. SUNLIGHT

    1 - none
    2 - fair
    3 - moderate
    4 - good
    5 - excellent

25. WATER TEMPERATURE (°C, decimal implied e.g., 234 = 23.4)

26. OBSERVER MAKING A SIGHTING

    1 - left
    2 - right
    3 - recorder
    4 - other

27. SIGHTING ANGLE (from inclinometer)

28. SIGHTING INTERVAL (from marked intervals on bubble or calculated from sighting angle)

    0 - unknown interval
    1 - 0-10°
    2 - 11-20°
    3 - 21-30°
    4 - 31-40°
    5 - 41-50°
    6 - 51-60°
    7 - 61-70°
    8 - >70°

29. SPECIES 1 (marine mammals, turtles, fishs, birds, pollution; see Appendix 2 for codes)

30. HERD SIZE, SCHOOL SIZE OR POLLUTION COUNT 1
    (herd sizes include adults and calves)

31. NUMBER OF CALVES 1
    (number of animals less than one-half the length of the large animals in the herd)

32. SPECIES 2

33. HERD SIZE 2

34. NUMBER OF CALVES 2

35. SPECIES 3

36. HERD SIZE 3

37. NUMBER OF CALVES 3

38. TRANSECT NUMBER (within a study area, including the "00" study area)

39. EFFORT STATUS

    1 - on transect
    2 - before a study area, between transects in a study area or off-effort while on-transect

40. HABITAT

    1 - Bays, Rivers, & Sounds
    5 - Nearshore & Offshore waters

Appendix 1

SOUTHEAST FISHERIES SCIENCE CENTER
MARINE MAMMAL OBSERVER CODES

01 - Keith Mullin
02 - Wayne Hoggard
04 - Ben Blaylock
05 - Carol Roden
07 - Carolyn Rogers
08 - Kevin Rademacher
10 - Larry Hansen
11 - Paula Olson
12 - Robert Pitman
13 - (open)
14 - Scott Benson
15 - Jim Cotton
16 - Ann Jennings
17 - Kathy Moore
19 - Jon Peterson
22 - Gerry Scott
24 - Lisa Mills
25 - Steve Huang
26 - Lesley Higgins
27 - Blair Mase
30 - Sean O' Sullivan
31 - Cheryl Brown
35 - Gayla Fornea
36 - Tony Martinez
37 - Suzanne Tarr
38 - Joe Contillo
39 - Charlotte Atrill
50 - Kimberly Marks
51 - Karen Mitchell
52 - Matt Pickett
98 - (Unoccupied position)
99 - "Other"

New Ship observers <50
New Aerial observers > 50

SOUTHEAST FISHERIES SCIENCE CENTER
"SPECIES" CODES

MARINE MAMMALS

1 - Balaena mysticetus
2 - Eubalaena glacialis
3 - Balaenoptera sp.
4 - B. musculus
5 - B. physalus
57 - B. borealis/edeni
6 - B. borealis
7 - B. edeni
8 - B. acutorostratus
9 - Megaptera novaeangliae
10 - Physeter macrocephalus
11 - Kogia sp.
12 - K. simus
13 - K. breviceps
55 - Monodon monoceros
14 - Delphinapterus leucas
48 - "beaked whale"
15 - Hyperoodon sp.
16 - Ziphius cavirostris
17 - Mesoplodon sp.
18 - M. bidens
19 - M. mirus
20 - M. europeaus
21 - M. densirostris
56 - Peponocephala/Feresa
22 - Peponocephala electra
23 - Feresa attenuata
24 - Pseudorca crassidens
25 - Orcinus orca
26 - Globicephala sp.
27 - G. melaena
28 - G. macrorhynchus
29 - Steno bredanensis
30 - Sotalia fluviatilis
31 - Lagenorhynchus sp.
32 - L. albirostris
33 - L. acutus
34 - Lagenodelphis hosei
35 - Delphinus delphis
50 - T. truncatus/S. frontalis
36 - Tursiops truncatus
37 - Grampus griseus
38 - S. clymene/longiros./coeruleoalb
39 - S. attenuata
40 - S. frontalis
41 - S. coeruleoalba
42 - S. longirostris
43 - S. clymene
44 - Phocoena phocoena
45 - Unid. dolphin
46 - Unid. small whale
47 - Unid. large whale
54 - Unid. odontocete

49 - Trichechus mantus

51 - Unid. seal
52 - Phoca vitulina
53 - Halichoerus grypus
58 - S. clymene/longirostris
60 - Stenella sp.

BIRDS

GANO - Northern gannet
TBWT - Western tropic bird
BOMA - Masked booby
BOBR - Bown booby
FRSP - Frigatebird
JASP - STERCORARIUS SP.
JAPO - Pomarine jaegar
JAPA - Parasitic jaegar
SALT - Long-tailed skuas
PHSP - PHALAROPUS SP.
PHRE - Red phalarope
PHWI - Wilson's phalarope
PHRN - Red-necked phalarope
GUSP - LARUS SP.
GUHE - Herring gull
GUBB - Greater blacked-backed gull
GURB - Ring-billed gull
GULA - Laughing gull
GUFR - Franklin's gull
GUBO - Bonaparte's gull
KIBL - Black-legged kittywake
TESP - STERNA SP.
TEGB - Gull-billed tern
TEFO - Forster's tern
TEAC - Common/Arctic tern
TECO - Common tern
TEAR - Arctic tern
TERS - Roseate tern
TEBR - Bridled tern
TELE - Least tern
TERY - Royal tern
TESA - Sandwich tern
TECA - Caspian tern
TEBL - Black tern
TESO - Sooty tern
NOBR - Brown noddy
NOBL - Black noddy

SHSP - SHEARWATER SP.
SHCO - Cory's shearwater
SHAU - Audubon shearwater
SHSO - Sooty shearwater
SHGR - Greater shearwater
PEBC - Black-capped petrel
FLNO - Northern fulmar
CODL - D. crested cormorant
SKBL - Black skimmer
SPSP - STORM PETREL
SPMA - Madeiran storm petrel
SPLE - Leach's storm petrel
SPWI - Wilson's storm petrel
PLBR - Brown pelican
PLWH - White pelican
NPSS - NON-PASSERINE (non-seabird)
PASS - PASSERINE
EGRT - EGRETS
DUCK - DUCK

BIRD - UNID BIRD

FISH, SHARKS & RAYS

201 - Bonito
202 - TUNA SP.
203 - Bluefin tuna
204 - Yellowfin tuna
205 - BILLFISH SP.
206 - SWORDFISH
207 - Drum/Jacks
208 - Crevalle Jacks
209 - Red drum
210 - Black drum
211 - Tarpon
212 - Dolphin fish
213 - King mackerel
214 - Cobia
215 - Sunfish
216 - Unid. large fish
217 - Barracuda
218 - Rat reds
219 - Baitfish
220 - Thresher shark
221 - Hammerhead shark
222 - Shark school
223 - Unid. shark
224 - open
225 - Whale shark
226 - Basking shark
227 - Catfish
228 - Manta ray
229 - Cownose ray
230 - Unid. rays (1-2)
231 - Unid. ray school
232 - Bluefish
233 - Jellyfish
234 - Cannonball jellyfish
235 - open
236 - Snook/bonefish
237 - Spadefish
238 - open
239 - open
240 - Blue runners
241 - Thread herring
242 - Anchovies
243 - Bumpers
244 - Menhaden
245 - Mullet
246 - open
247 - Flying fish
248 - Spanish mackerel
249 - Unid. small fish

TURTLES

301 - Loggerhead
302 - Kemp's ridley
303 - Green turtle
304 - Hawksbill
305 - Leatherback
306 - Hardshell

POLLUTION

401 - Plastic
402 - Rope
403 - Oil slick
404 - Fishing gear(no crab/lobster pots)
405 - Other pollution
406 - Ocean front
407 - Working seismic boat
408 - Anchored shrimp boat
409 - Working shrimp boat
410 - Large Sargassum rip
411 - Longline fishing gear
412 - Gill net fishing gear
413 - Aluminum cans
414 - Flourescent lightbulbs
415 - Salt/Ice Bags

Behavior Codes

As required by the marine mammal research permit No. 738 issued to the Southeast Fisheries Science Center, data on behavioral responses of cetaceans to the survey aircraft are recorded. The behavior codes are appended to all mammal sightings after each survey and are cataloged in a DBASE file. The codes listed below are used to describe responses to both the aircraft and ship surveys.

Behavior Codes

1. unknown
2. resting
3. feeding
4. complex social
5. bowriding
6. milling
7. spyhopping
8. traveling fast
9. tail slaps
10. other
11. diving
12. breaching
13. approaching ship
14. fleeing ship
15. traveling north
16. traveling south
17. traveling east
18. traveling west

ATTACHMENT V

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149

October 12, 1995

Walter M. Tatum
Gulf States Marine Fisheries Commission
P.O. Box 726
Ocean Springs, MS 39566-0726

Dear Mr. Tatum: Walter

In response to your letter of August 14, 1995 on the recommendations by the SEAMAP Reef Fish Work Group for the NMFS pilot studies around oil and gas structures, I am enclosing two cruise reports. As can be seen from the cruise reports, NMFS has followed the recommendations fairly closely in most regards. The recommendations that have not been followed are discussed below.

- Mobile ROV passes were not made because our ROV is not equipped with acoustics. We did, however, use a towed acoustic system that used a "fish" to house the transducer. We also attempted to obtain simultaneous video and acoustic coverage. The degree to which this was successful will only become apparent when analyses of the data are completed.

- Four-camera array for static visuals at set depth strata were not done during the September cruises. Instead a pan-and-tilt camera system was deployed. Plans call for continued cruises during periods of good weather for the remainder of this fall and winter. On those cruises the four-camera array will be used.

- Plankton sampling was not done, but some effort will be committed to it during the next year.

- Laser measurements were not done but will be in the future. The lasers had been used extensively during the natural reef surveys and are in bad need of refurbishment. They will be back in use in the near future.

Weather and the loss of Jeff Render have jeopardized the continuity of this program although it is now coming back on line. If you have any questions, don't hesitate to call.

Sincerely,

Bradford E. Brown
Center Director

Enclosures: as

DRAFT

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
Mississippi Laboratories
Pascagoula Facility
P.O. Drawer 1207
Pascagoula, MS 39568-1207
United States of America

Second Preliminary Reef Fish Platform Cruise
R/V CARETTA Cruise 95-03
9/10/95 - 9/15/95

INTRODUCTION

On 10 September 1995 the R/V Caretta (17.7 m shrimp boat) departed Pascagoula, MS. The purpose of this cruise was to continue conducting tests in order to establish a quantitative methodology for assessment of reef fish populations associated with oil and gas structures in the Gulf of Mexico. This cruise was conducted in conjunction with Louisiana State University's Coastal Fisheries Institute (LSU CFI) at a platform that they have been conducting similar studies. The vessel returned to Pascagoula, MS on Sept. 15, 1995 after utilizing 3 work days out of 6 sea days.

OBJECTIVES

1. Compare data from LSU's stationary fishery acoustic system (FAS) estimates with our mobile and stationary FAS estimates. Collect video data to partition the FAS data.

2. Conduct an experiment attempting to determine if there is avoidance of fish to the R/V CARETTA during transects near the platform.

3. Conduct an experiment to determine the area of influence around the platform on reef fishes.

4. Work additional platforms as time allows collecting: CTD profiles, mobile FAS, static FAS/pan & tilt(P&T) video and remotely operated vehicle (ROV) video data.

METHODS

For this cruise a Mobil Oil Co. platform located in Minerals Management Services lease area Grand Isle block 94 (MO-GI-94-B) was the main work platform. An additional platform (MO-GI-93-C) in the vicinity was also worked (Fig.1).

The FAS consisted of a BIOSONICS dual beam 120 kHz (7°/16°) transducer, echosounder, echo integrator, and dual beam processor and a DAT tape recorder to archive data for postprocessing. Settings for the system were: transmitted source level of -6 db; received echo sounder level of -12 db; transmit interval of 5 pings/sec.; pulse width of 0.4 millisecond and a band width of 5 kHz. These settings were used so that a target with a target strength of -50 db resulted in a signal strength of 100 millivolts. These settings will give comparable data to what LSU's CFI personnel have collected.

For mobile FAS the transducer was attached to a v-fin which was towed from the CARETTA's starboard outrigger. Transects were run on each side of a platform and at a speed between 2.0 and 3.5 knots. Transect length was approximately 60 m. They all started between 1 & 2 boat lengths before the structure at the waterline and ended 1-2 boat lengths past. The v-fin was towed parallel and as close to the platform as possible avoiding acoustical interference from the legs that pyramid out below the waterline. This distance was approximately 15 - 20 m. One side was selected to start and then a cloverleaf-like pattern was conducted around the rig to circumnavigate the structure. This was repeated until 30 transects were completed per side without pinging on the rig legs on GI-94-B and 5 times per side on GI-93-C.

The stationary FAS experiments was conducted in conjunction with the P&T video system while the CARETTA was tied stern-to on one of the rig's boat landings. The CARETTA attached tires to her stern so she can be tied up close to the rig independent of current direction. The transducer was suspended about 2 m below the surface on a gimbal. The transducer was moved around the vessel, as necessary, to get a good reading of the water column (ie. no rig legs, good bottom return, no pipelines, etc). The transducer was enabled for 10 minutes prior to insertion of the P&T system. Then allowed to ping for 20 minutes per depth in conjunction with the pan & tilt video system. Then pinged for 20 minutes after the P&T system was removed.

Video systems used included an ROV and a pan and tilt system (P&T). The ROV used was a Deep Ocean Engineering Phantom with a 10 lux color camera (56° viewing angle), a 5×10^{-4} lux black and white SIT camera and external lighting. The P&T system utilized a 0.3 lux SONY black and white camera, external light and a motorized pan and tilt mechanism. The P&T system was mounted inside a 4' x 4'(1.22 X 1.22 m) cage and was suspended from a swinging davit mounted on the vessels port quarter.

The P&T video system was used to collect video data while the FAS transducer was suspended from the vessel. Once the vessel was tied to the platform and the FAS transducer had collected ten minutes of data, the P&T cage was suspended about 6.1 m (20 ft.)

below the surface. The camera was positioned so it was viewing in the general direction of the transducer. This was taped at 20 min./depth for the entire water column. Both the video tape and the FAS DAT player were started and stopped at the same times for each depth. Depths for this experiment were every 6.1 m.

Video data were also collected with the ROV. At approximately 3 m intervals the ROV would be stopped, panned in & out of the rig and then up & down the leg. This procedure was continued down to the bottom. On retrieval, the ROV was sometimes navigated across a crossbeam to the next main leg. This was repeated on as many legs as possible until the allotted time was exhausted or problems arose. ROV flight time varied depending upon bottom depth, currents at depth, turbidity and complexity of the rig.

A SEABIRD CTD was used to collect associated environmental data. This included salinity, temperature, depth, dissolved oxygen, light transmissivity and speed of sound. LSU also utilized a CTD to collect environmental data for their use and ours.

The boat avoidance experiment was conducted on the south side of the GI-94-B platform. LSU collected data via a transducer suspended from the platform 10 m away from the waterline. The CARETTA conducted transects back and forth, starting one boat length before and ending a boat length past the rig at the waterline. Speed of the vessel and distance from the rig replicated mobile FAS work.

The area of influence experiment was conducted on the east side of GI-94-B. Transects were approximately 744 m(2480 ft) in length. Transects started 360 m from the northeast corner of the rig at the waterline and ended the same distance from the southeast corner. The CARETTA would run from the north end to the south end of the transect with the v-fin collecting data at speeds and distances similar to mobile FAS work. The v-fin would then be pulled from the water so the transit from the south end to the north end could be run as fast as possible.

RESULTS

The GI-93-C platform was worked on 9/12/95 while LSU CFI personnel finished collecting the base data on GI-94-B. This was done to both check out the equipment and to collect additional data for the survey design analysis. Twenty mobile FAS transects were conducted around the rig first. When that exercise was completed the CARETTA tied-up stern-to on the west side of the platform. A CTD profile was conducted while the stationary FAS transducer was being positioned for the dual FAS/Video experiment. The transducer was positioned on the starboard side of the CARETTA near the bow, about 13.7 m away from the rig. The transducer was suspended about 2 m below the surface of the water. The transducer collected ten minutes of data prior to inserting the pan & tilt camera system.

The P&T system collected twenty minutes of video footage from the following depths 6.1, 12.2, 18.3, 24.4, 30.5, 36.6, 42.7 meters while the FAS collected the acoustical data. At the 30.5 m depth the CARETTA had to be moved about ten feet away from the rig to allow the P&T cage to clear one of the pyramiding rig legs. The P&T system did not go any deeper due to a break in the video cable that could not be repaired. Once the P&T system was back on board the FAS collected 20 min. of data. The ROV was then deployed and collected mobile video data along the west side of the rig under the boat landing. At about 50.3 m the currents pushed the ROV into the rig and ROV work had to be aborted. The ROV cable was hung up in the rig legs very badly, but eventually everything was brought back aboard.

The next day mobile FAS work was conducted around GI-94-B with 30 transects completed for comparison with LSU CFI stationary FAS. Rain fell for about 23 min. during the 8.5 hour experiment. While the CARETTA was conducting the mobile FAS, LSU personnel conducted 3 CTD profiles from the rig. One at the beginning, middle and end of the experiment. After the v-fin was retrieved the CARETTA tied-up stern-to on the west side of the platform. The ROV was deployed and run down one leg to the bottom. Upon reaching the bottom the ROV cable began to flood, damage from the previous day. So the ROV was retrieved and all underwater video capability for the cruise was lost.

The boat avoidance and area of influence experiments were conducted on 9/14/95 around the GI-94-B platform. Three CTD profiles were conducted during the course of the day from the CARETTA. One before the boat avoidance experiment, one between the two and one at the end of the area of influence experiment. Boat avoidance transects were approximately 39.6 m long. Thirty transects were completed with LSU collecting 55 seconds(+/-5 sec) of FAS data per transect. Thirty transects were also completed for the area of influence experiment. Transect time average ten minutes.

One Scamp grouper *Mycteroperca phenax* was caught while recreational fishing during the cruise and was sampled. The grouper was caught at GI-93-C and weighed 2.4 Kg. Lengths were as follows: total 573 mm, fork 544 mm and standard 452 mm. Sex and condition of the grouper was determined to be a male resting. Otoliths were removed for aging. No other commercially important fish were caught.

CRUISE PARTICIPANTS:

Leg 1: (9/10/95 - 9/15/95): 6 sea-days

Kevin Rademacher	Field Party Chief	NMFS, Pascagoula, MS
Cliff Harper	Electronics Tech.	NMFS, Stennis SC, MS
Joe Nunn	Graduate Student	LSU, Baton Rouge, LA

SUBMITTED BY:

Kevin Rademacher

Kevin R. Rademacher
Field Party Chief

DATE: 10/12/95

Table 1: Position of Platforms worked on R/V Caretta cruise 95-03. Number of rig (1&2) coincides with number on Figure 1.

PLATFORM #	LATITUDE	LONGITUDE	DEPTH
1) GI-93-C	28°32.93′ N	90°04.16′ W	67.7 m
2) GI-94-B	28°31.56′ N	90°05.85′ W	64.3 m

Table 2: Data collected on R/V CARETTA cruise 95-03.

	RIG NUMBER	
DATA TYPE	GI-93-C	GI-94-B
# CTD casts	1	6
Dual Video/FAS	140 min. VID 170 min. FAS	- -
ROV Work	30 min.	12 min.
Mobile FAS # transects	20	120
Boat avoidance # transects	-	30
Area of influence # transects	-	30

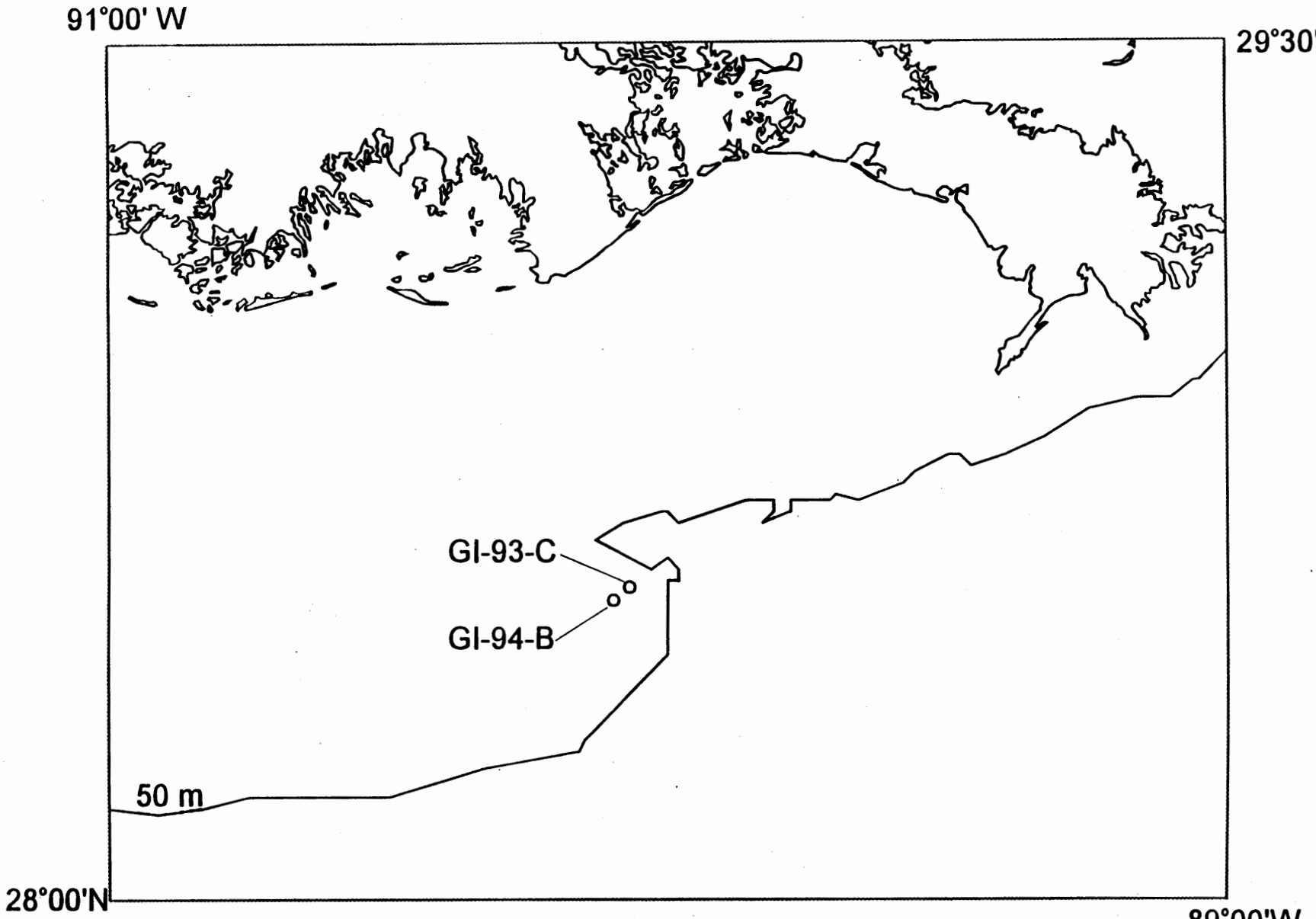


Figure 1: Platforms worked during R/V CARETTA cruise 95-03.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Fisheries Science Center
Mississippi Laboratories
Pascagoula Facility
P O Drawer 1207
Pascagoula, MS 39568-1207

October 2, 1995 F/SEC5:KR/vh

MEMORANDUM FOR: Scott Nichols

FROM: Kevin Rademacher

SUBJECT: R/V CARETTA Cruise 95-02

The attached cruise report has been reviewed by Terry Henwood. I am submitting it for your information.

Attachment: as

cc: Dr. Terry Henwood
Dr. Warren Stuntz
Dr. Chris Gledhill
Karen Mitchell
Drew Hopper
David Callaway
Joe Nunn

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
Mississippi Laboratories
Pascagoula Facility
P.O. Drawer 1207
Pascagoula, MS 39568-1207
United States of America

First Preliminary Reef Fish Platform Cruise
R/V CARETTA Cruise 95-02
8/07/95 - 8/20/95

INTRODUCTION

On 7 August 1995 the R/V Caretta (17.7 m shrimp boat) departed Pascagoula, MS. The purpose of the cruise was to establish a quantitative methodology for assessment of reef fish populations associated with oil and gas structures in the Gulf of Mexico. Artificial structures in the Gulf of Mexico such as oil and gas platforms add a third dimension in trying to develop a survey design. The vertical aspect of platforms offers both useful habitat for many commercially important fish and a challenge to determine the population of fish on that platform at any given time. For this first survey, platforms east of the Mississippi River were selected for work (Fig.1). Size of platform and surrounding depth were factors considered in selecting a platform to work. The cruise was conducted in two legs (8/7 - 8/10 & 8/14 - 8/20) with a total of 11 sea days.

OBJECTIVES

1. Determine optimal acoustic survey design by comparing results from mobile versus. stationary deployments of a fishery acoustic system (FAS).

2. Determine optimal visual survey design by comparing video results obtained from a remotely operated vehicle (ROV) and a pan & tilt camera system (P&T).

3. Compare catch data and effort from hook-&-line and bandit reel sampling for collection of length frequency and life history data.

METHODS

The following methods will describe the gear and how the experiments were run from 14-20 August. Data were collected from the entire cruise period.

The FAS consisted of a BIOSONICS dual beam 120 kHz (7°/16°) transducer, echosounder, echo integrator, and dualbeam processor and a DAT tape recorder to archive data for postprocessing. Settings for the system were: transmitted source level of -6 db; received echo sounder level of -12 db; transmit interval of 5 pulses/sec.; pulse width of 0.4 millisecond and a band width of 5 kHz. These settings were used so that a target with a target strength of -50 db resulted in a signal strength of 100 millivolts.

For mobile FAS the transducer was attached to a v-fin which was towed from the CARETTA's starboard outrigger. Transects were run on each side of a platform at a speed between 2.0 and 3.5 knots. Transect length varied with the waterline dimensions of the platform. All started between 1 & 2 boat lengths before the structure at the waterline and ended 1-2 boat lengths past. The v-fin was towed parallel and as close to the platform as possible avoiding acoustical interference from the legs which pyramid out below the waterline. This distance varied from rig to rig, based on the type of platform and the depth of water. One side was selected to start and then a cloverleaf-like pattern was conducted around the rig to circumnavigate the structure. This was repeated until 4 to 6 transects were completed per side.

The stationary FAS experiments were conducted while the CARETTA was tied to the rig, usually on the down current side. The transducer was suspended from the vessel on a gimbal. The boat or the transducer was moved, as necessary, to get a good reading of the water column (ie. no rig legs, good bottom return, no pipelines, etc). During the dual FAS/video experiments the transducer collected data for either 20 or 40 minutes per depth simultaneously with the video data.

Video systems used included an ROV and a pan and tilt system (P&T). The ROV used was a Deep Ocean Engineering Phantom with a 10 lux color camera (56° viewing angle), a 5 x 10^{-4} lux black and white SIT camera and external lighting. The P&T system utilized a 0.3 lux SON black and white camera, external light and a motorized pan and tilt mechanism. The P&T system was mounted inside a 4' x 4' cage and was suspended from a swinging davit mounted on the vessels port quarter.

The P&T video system was used to collect video data in two different ways. The CARETTA would tie-off, stern-to on the down current side of the structure. The P&T cage was then suspended about 6.1 m (20 ft.) below the surface. All experiments done with the P&T system were conducted on only one side of the platform. The first type of video data collected was quadrant at depth. The cage's four sides were labeled A-D. The camera was positioned in the A quadrant and moved throughout that quadrant while taping for 2.5 min. The camera was next moved to the B quadrant which was taped for 2.5 min., and so on. Each depth had 10 min of video.

The cage was lowered to the next depth (usually every 6.1 m) and repeated until the water column was covered or the visibility was reduced to levels deemed unsatisfactory to collection of useful data. The second type of video data was collected in conjunction with some of the fixed FAS data. After the FAS was in the water and the P&T cage was deployed to the starting depth, the camera was positioned to view in the general direction of the transducer. This was taped first at 40 min./depth and later shortened to 20 min./depth for the entire water column or reduced visibility. Both the video tape and the FAS DAT player were started and stopped at the same times for each depth. Depths for this experiment were also every 6.1 m.

Video data were also collected with the ROV. At approximately 3 m intervals the ROV would be stopped, panned in & out of the rig and then up & down the leg. This procedure was continued to the bottom. On retrieval, the ROV was sometimes navigated across a crossbeam to the next main leg. This was repeated on as many legs as possible until allotted time was exhausted or problems arose. ROV operations varied (27-43 min.) from rig to rig depending upon bottom depth, currents at depth, turbidity and complexity of the rig.

A SEABIRD CTD was used to collect associated environmental data. This included salinity, temperature, depth, light transmissivity and speed of sound (used in acoustical processing). The oxygen sensor was broken and unavailable for the cruise.

Comparison fishing was done using one manual bandit reel with nine hooks of three sizes and personal rod and reels with one hook per rod. All comparison fishing was done on bottom with fresh cut bait and for one to two and a half hours. Red snapper and other selected fishes from each fishing time were measured, weighed, sexed and otoliths removed for life history studies.

RESULTS

Data were collected from nine different platforms located at three different bottom depths (Figure 1 & Table 1). At two platforms (MP-133-P & CA-37-A) only a CTD profile was taken. At the first (MP-133-P), the currents were strong causing the vessel to swing around on the mooring line. So the CARETTA moved to another platform. At the other platform, transmissivity was below 60% for the lower half of the water column, indicating the presence of a nephloid layer. Since visibility was poor, the vessel moved to another platform. Of the seven remaining rigs, (Table 2) two were in the 50 - 55 meter range(MP-132-C & MP-202-A), three in the 35 - 40 m range (CA-38-A, VK-203-A & VK-203-B) and the last two in 22 m (MP-108-2) and 28 m (MP-111 well 1). The letters identifying each platform refer to the Minerals Management Service lease area where they are located: MP = Main Pass, CA = Chandeleur Area & VK =

Viosca Knoll. Only VK-203-A was a manned platform.

The amounts and type of data collected at each of the seven platforms sampled are listed in Table 2. After the first platform was sampled it was decided to modify the stationary FAS by adding the P&T video system to identify the fish in the FAS beam. The number of experiments conducted at MP-111-w1 is lower than the rest due to the strong currents pushing the vessel into the platform. The reason for the odd number of mobile transects on VK-203-A was because two supply boats tied up to the south side of the rig precluded sampling that side.

Sample depths for the static video at MP-132-C were 9.1, 15.2 & 24.4 m (30, 50 & 80 ft). Depths for the static video experiment on platform MP-108-2 were every 3 m (10 ft.) down to 21.3 m (70 ft.). Video data for the dual experiment at that rig were collected at 4.5, 9.1, 13.7 & 18.3 m (15, 30, 45 & 60 ft.). Depths for video data collection at MP-111-w1 during both static and dual experiments were 6.1, 12.2, 18.3 & 24.4 m (20, 40, 60 & 80 ft.). Platforms MP-202-A, VK-203-A & VK-203-B had sample depths for both experiments every 6.1 m down to 30.5 m (100 ft.). At platform CA-38-A when the static experiment reached the 24.4 m (80 ft) depth the visibility was reduced in a nephloid layer to the point that the video would be of no use during the dual experiment. The P&T cage was brought up to 21.3 m (70 ft) which was out of the nephloid layer and this depth was taped for both experiments. Sample depths on this rig were for the static test 6.1, 12.2, 18.3, 21.3 & 24.4 m and for the dual test 21.3, 15.2, 9.1 & 3 m (70, 50, 30 & 10 ft).

Fishing (Bandit reel & Hook&Line) was conducted five times at four platforms. A total of 9 species were caught. The catch was dominated by Red snapper (*Lutjanus campechanus*)(Tables 3 & 4). Size of hook used to catch fish was not annotated.

CRUISE PARTICIPANTS:

Leg 1: (8/07/95 - 8/10/95): 4 sea-days

Jeff Render	Field Party Chief	NMFS, Pascagoula, MS
Cliff Harper	Electronics Tech.	NMFS, Stennis SC, MS
Joe Nunn	Graduate Student	LSU, Baton Rouge, LA

Leg 2: (8/14/95 - 8/20/95): 7 sea-days

Kevin Rademacher	Field Party Chief	NMFS, Pascagoula, MS
Cliff Harper	Electronic Tech.	NMFS, Stennis SC, MS
Joe Nunn	Graduate Student	LSU, Baton Rouge, LA

SUBMITTED BY:

Kevin Rademacher

Kevin R. Rademacher
Field Party Chief

DATE: 2 October 1995

Table 1: Position of Platforms worked on R/V Caretta cruise 95-02. The number of rig (1-9) coincides with numbers on Figure 1.

PLATFORM #	LATITUDE	LONGITUDE	DEPTH
1) MP-133-P	29°23.921'N	88°37.647'W	52.4 m
2) MP-132-C	29°23.497'N	88°38.748'W	52.4 m
3) MP-108-2	29°32.709'N	88°39.100'W	21.6 m
4) MP-111-well-1	29°30.953'N	88°39.192'W	28.0 m
5) MP-202-A	29°29.937'N	88°27.047'W	52.4 m
6) CA-38-A	29°44.068'N	88°28.895'W	35.7 m
7) CA-37-A	29°44.330'N	88°45.620'W	30.0 m
8) VK-203-B	29°47.230'N	88°20.940'W	36.9 m
9) VK-203-A	29°46.890'N	88°20.010'W	37.8 m

Table 2: Types of data collected on R/V CARETTA cruise 95-02.

DATA TYPE	RIG NUMBER						
	MP-132-C	MP-108-2	MP-111-w1	MP-202-A	CA-38-A	VK-203-B	VK-203-A
# CTD casts	2	1	1	1	1	2	1
Static/quad. video (P&T)	3 depths 193 min.	4 depths 20 min.	4 depths 40 min.	5 depths 50 min.	5 depths 50 min.	5 depths 50 min.	5 depths 50 min.
Dual Video/FAS	- -	4 depths 160 min.	4 depths 160 min.	5 depths 200 min.	4 depths 80 min.	5 depths 100 min.	5 depths 100 min.
ROV Work	30 min.	35 min.	-	40 min.	43 min.	33 min.	27 min.
Stationary FAS	2 hrs.	-	-	-	-	-	-
Mobile FAS # transects	24	16	-	16	20	20	15
Comparison fishing in man hours	6.25	12.5	-	4.5	-	4.5	-

Table 3: Results of fishing effort during R/V CARETTA cruise 95-02.
BR = Bandit reel, H&L = Hook & Line.

PLATFORM	DATE	GEAR	MAN HOURS FISHED	SPECIES	TOTAL# CAUGHT	TOTAL# SAMPLED
MP-132-C	8/08/95	BR	1	*Lutjanus campechanus*	4	3
		BR	1	*Centropristis philadelphica*	1	0
		H&L	2.5	*Lutjanus campechanus*	4	4
		H&L	2.5	*Rhomboplities aurorubens*	7	0
		H&L	2.5	*Mycteroperca microlepis*	1	0
		H&L	2.5	*Balisties capriscus*	4	0
		H&L	2.5	*Lagodon rhomboides*	2	0
MP-108-2	8/09/95	H&L	8	*Lutjanus campechanus*	10	4
		H&L	8	*Lutjanus synagris*	1	0
		H&L	8	*Lutjanus griseus*	1	0
		H&L	8	*Carcharhinus* spp.	2	0
MP-108-2	8/15/95	BR	1	*Lutjanus campechanus*	4	4
		H&L	3.5	*Lutjanus campechanus*	7	7
		H&L	3.5	*Lutjanus synagris*	1	1
MP-202-A	8/16/95	BR	1	*Lutjanus campechanus*	5	5
		BR	1	*Opsanus beta*	1	0
		BR	1	*Ophichthus rex*	1	0
		H&L	3.5	*Lutjanus campechanus*	7	7
		H&L	3.5	*Lutjanus synagris*	2	2
		H&L	3.5	*Pagrus pagrus*	1	1
		H&L	3.5	*Equetus umbrosus*	1	1
		H&L	3.5	*Sphyraena guachancho*	1	0
		H&L	3.5	*Ophichthus rex*	1	0
VK-203-B	8/18/95	BR	1	*Lutjanus campechanus*	5	5
		H&L	3.5	*Lutjanus campechanus*	15	15

Table 4: Meristic data and samples collected from fish caught during R/V CARETTA cruise 95-02. GEAR: BR=bandit reel & H&L=Hook&Line. SEX COND.:letter denotes gender & # is condition of gonads: 1-undetermined, 2-resting, 3-developing, 4-running ripe & 5-spent.

PLATFORM	DATE	GEAR	GENUS & SPECIES	TL	FL	SL	KG	SEX COND.	COMMENTS
MP-132-C	8/08/95	BR	*Lutjanus campechanus*	315	295	250	0.51	F1	Otoliths taken.
"	"	"	"	335	305	260	0.62	F1	"
"	"	"	"	342	314	272	0.62	F1	"
MP-132-C	8/08/95	H&L	*Lutjanus campechanus*	290	273	225	0.45	U1	"
"	"	"	"	305	281	240	0.51	U1	"
"	"	"	"	535	500	435	2.32	M1	"
"	"	"	"	275	255	225	0.40	F1	"
MP-132-C	8/08/95	H&L	*Rhomboplities aurorubens*	380	340	300	0.79	M1	No samples.
"	"	"	"	342	302	265	0.45	M1	"
"	"	"	"	325	288	249	0.51	M1	"
"	"	"	"	340	300	270	0.51	M1	"
"	"	"	"	396	345	305	0.68	M1	"
"	"	"	"	334	295	254	0.57	M1	"
"	"	"	"	380	345	300	0.79	F3	"
MP-132-C	8/08/95	H&L	*Mycteroperca microlepis*	465	465	393	1.42	U1	"
MP-108-2	8/09/95	BR	*Lutjanus campechanus*	310	285	243	0.51	U1	Otoliths taken.
"	"	"	"	810	759	664	8.16	F3	"
"	"	"	"	365	335	282	0.85	U1	"
"	"	"	"	338	315	265	0.60	U1	"

Table 4(cont.): Meristic data and samples collected from fish caught during R/V CARETTA cruise 95-02.

PLATFORM	DATE	GEAR	GENUS & SPECIES	TL	FL	SL	KG	SEX COND.	COMMENTS
MP-108-2	8/15/95	BR	*Lutjanus campechanus*	405	377	312	1.00	F1	Otoliths taken.
"	"	"	"	297	278	230	0.35	M2	"
"	"	"	"	323	302	243	0.50	M3	"
"	"	"	"	393	364	301	0.85	M3	"
MP-108-2	8/15/95	H&L	*Lutjanus campechanus*	342	320	262	0.55	M3	"
"	"	"	"	361	338	273	0.60	M3	"
"	"	"	"	330	307	251	0.50	M3	"
"	"	"	"	299	273	222	0.30	M3	"
"	"	"	"	275	258	211	0.30	M2	"
"	"	"	"	256	240	194	0.25	M2	"
"	"	"	"	763	713	576	6.60	M3	"
MP-108-2	8/15/95	H&L	*Lutjanus synagris*	365	337	283	0.65	M3	"
MP-202-A	8/16/95	BR	*Lutjanus campechanus*	320	298	240	0.45	M2	Otoliths taken.
"	"	"	"	337	311	260	0.50	M3	"
"	"	"	"	315	293	240	0.45	M3	"
"	"	"	"	314	293	238	0.40	M2	"
"	"	"	"	313	294	240	0.40	M2	"
MP-202-A	8/16/95	H&L	*Lutjanus campechanus*	317	289	237	0.40	M2	"
"	"	"	"	350	322	266	0.60	F3	"
"	"	"	"	292	272	224	0.40	M2	"
"	"	"	"	285	263	217	0.35	F2	"
"	"	"	"	298	275	227	0.40	M3	"
"	"	"	"	320	-	-	-	-	Released alive.
"	"	"	"	280	-	-	-	-	Released alive.
MP-202-A	8/16/95	H&L	*Lutjanus synagris*	346	320	269	0.55	M3	Otoliths taken.
"	"	"	"	375	351	294	0.65	M3	"
"	"	"	*Pagrus pagrus*	297	252	222	0.40	F3	"
"	"	"	*Equetus umbrosus*	257	-	207	0.20	U1	No samples.

Table 4(cont.): Meristic data and samples collected from fish caught during R/V CARETTA cruise 95-02.

PLATFORM	DATE	GEAR	GENUS & SPECIES	TL	FL	SL	KG	SEX COND.	COMMENTS
VK-203-B	8/18/95	BR	*Lutjanus campechanus*	337	305	257	-	-	Released alive.
"	"	"	"	361	332	273	-	-	"
"	"	"	"	436	408	336	1.20	F3	Otoliths taken.
"	"	"	"	366	340	277	0.70	M3	"
"	"	"	"	374	350	285	0.70	F3	"
VK-203-B	8/18/95	H&L	*Lutjanus campechanus*	345	320	295	-	-	Released alive.
"	"	"	"	355	324	265	-	-	"
"	"	"	"	292	279	228	-	-	"
"	"	"	"	300	277	230	-	-	"
"	"	"	"	368	343	300	-	-	"
"	"	"	"	315	295	249	-	-	"
"	"	"	"	275	253	205	-	-	"
"	"	"	"	315	295	245	-	-	"
"	"	"	"	537	498	417	2.35	F3	Otoliths taken.
"	"	"	"	391	362	302	0.80	U1	"
"	"	"	"	378	348	289	0.75	M3	"
"	"	"	"	357	330	271	0.70	M3	"
"	"	"	"	360	333	273	0.60	F3	"
"	"	"	"	318	295	242	0.45	M3	No samples.
"	"	"	"	310	289	236	0.45	M2	"

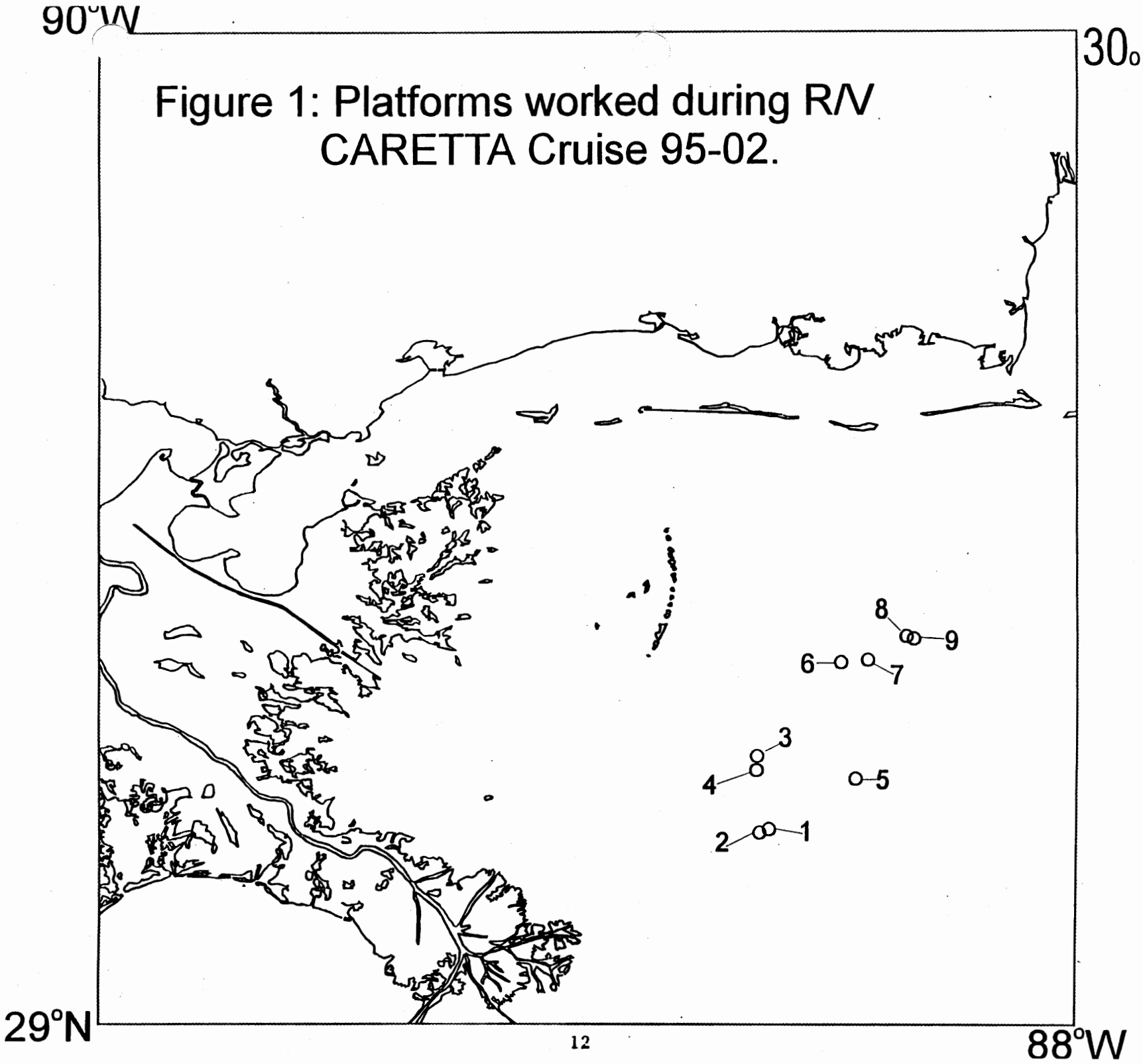


Figure 1: Platforms worked during R/V CARETTA Cruise 95-02.

NMFS SOUTHEAST NONCOMPETITIVE REPORTING REQUIREMENTS [FY 1996 AND BEYOND]

ATTACHMENT VI

NEW REQUIREMENTS: One performance report will be required for most recipients. It will be due in the NMFS Southeast Program Office 90 days before the end of the current budget period. In addition, a final (completion) report will be required 90 days after the end of the single or multiple budget period project.

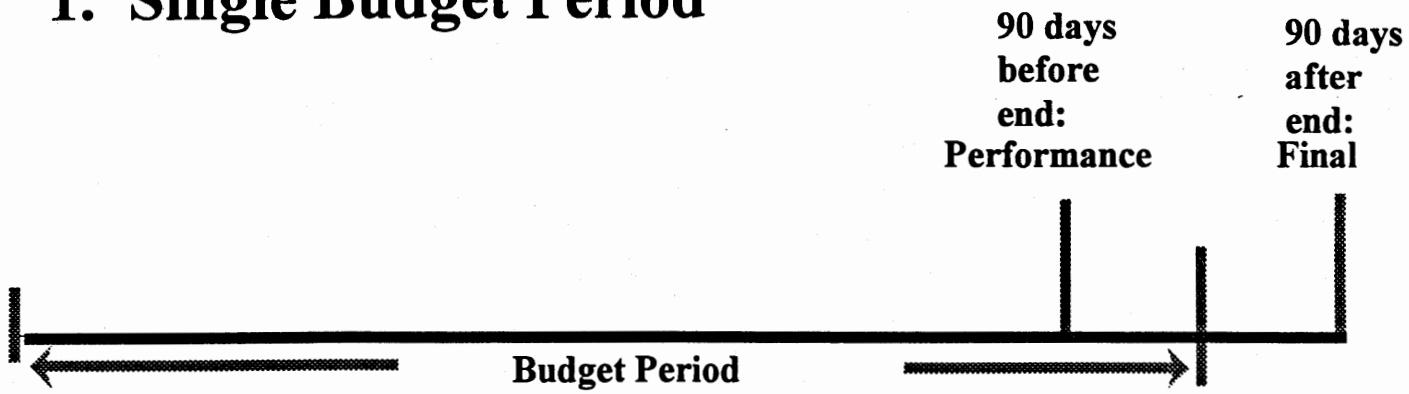
ELIGIBLE PROGRAMS: AFC, SEAMAP, STATISTICS, IJ, UNALLIED, ES, ACFCMA

EXECPTIONS:

* **Need for Two Reports/Budget Period**
* **Performance or Reporting Problems**

NEW REPORTING REQUIREMENTS

1. Single Budget Period



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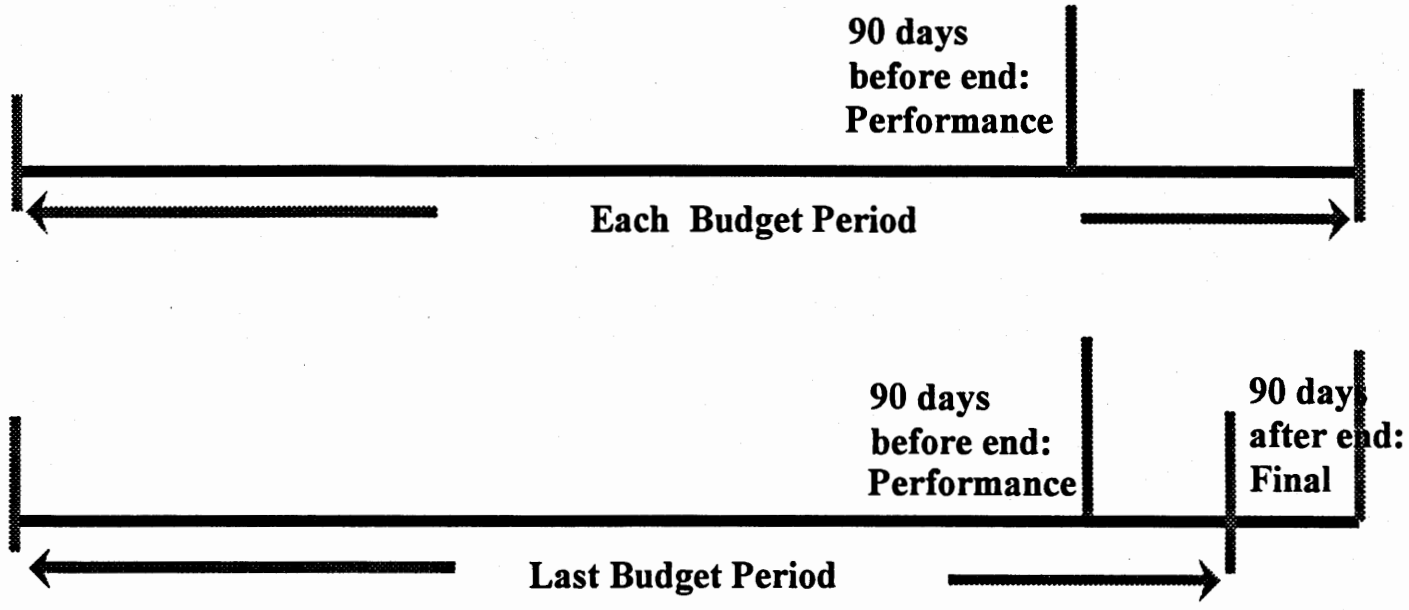
2. Multiple Budget Periods



NMFS SOUTHEAST
Performance Report Outline

1. Summary of Planned Activities
2. Description and Explanation of Deviations from Planned Activities
3. Summary of Planned Expenditures
4. Description and Explanation of Deviations from Planned Expenditures
5. Actions Taken (or Recommended) to Resolve any Deviations in Planned Activities and Expenditures
6. Approval of the Report by Authorized Recipient Official

APPROVED BY:

COMMITTEE CHAIRMAN

SEAMAP SUBCOMMITTEE
MINUTES
Mobile, Alabama
October 23, 1995

Chairman Walter Tatum called the meeting to order at 1:20 p.m. The following members and others were present.

Members:

Walter Tatum, ADCNR, Gulf Shores, AL
Mark Leiby, FDEP, St. Petersburg, FL
Jim Hanifen, LDWF, Baton Rouge, LA
Terry Cody, TPWD, Rockport, TX
Richard Waller, GCRL, Ocean Springs, MS
Joanne Shultz, NMFS, Pascagoula, MS

Others:

Buck Sutter, NMFS, St. Petersburg, FL
Ken Savastano, NMFS, SSC, MS
Perry Thompson, NMFS, Pascagoula, MS
Angelá Ruple, NMFS, Pascagoula, MS
Kevin Rademacher, NMFS, Pascagoula, MS
Stevens Heath, ADCNR, Dauphin Island, AL

Staff:

Larry Simpson, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Hanifen will also give a report under the Environmental Work Group Report and B. Sutter will give an update on NMFS reporting requirements under Other Business. With these changes, the agenda was adopted.

Approval of Minutes

* T. Cody asked to change Texas' input under the 5 year plan on page 3 to read "important recreational and commercial species." J. Hanifen moved to accept the minutes as amended. J. Shultz seconded and it passed unanimously.

Administrative Report

D. Donaldson reported the Reef Fish Survey is continuing to date. They have collected approximately 160 samples to date and everything is going well.

The Fall Plankton Survey was conducted from September 6 to September 29, 1995. The Survey covers Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi, Louisiana and

NMFS participated. The purpose of the survey is to assess abundance and distribution of king mackerel and red drum eggs and larvae. A total of 200 stations were sampled.

The Fall Shrimp/Groundfish Survey started in October and will continue through December 1995. The purpose of the survey is to determine abundance and distribution of demersal organisms in the Gulf of Mexico. Vessels from NMFS, Louisiana, Mississippi, Alabama, and Texas participates in this survey.

All presentations have been received from the Reef Fish Work Shop and the Proceedings has been sent out for review. The Proceedings should be published and distributed later this year.

The FY95 TCC Report has been completed and distributed at this meeting. The report outlines the activities of the SEAMAP.

Work is continuing on the 1993 Atlas. Due to the conversion from A-10 to IT-95, processing has been delayed. Funds will be obligated and it will be published later this year or early next year.

D. Donaldson said he is waiting on comments from the South Atlantic and Caribbean Components for inclusion in the Joint Annual Report. It should be published later this year.

D. Donaldson reminded the Subcommittee that SEAMAP is sponsoring a general session at this GSMFC meeting scheduled for Tuesday, October 24, 1995 from 1:00 p.m. to 5:00 p.m. He said that all of the speakers are still able to attend even though the meeting week changed.

D. Donaldson informed the Subcommittee that the GSMFC is in the process of getting a home page on the Internet for access to copies of documents, minutes, meeting information, etc. and asked if the Subcommittee would be interested in sending information to each other via E-mail and once everyone has access, via internet. After discussion, it was agreed by everyone that this is a good idea and D. Donaldson should proceed. In the mean time, hard copies will still be used but eventually electronic communications will be the method of choice because it will save money and time.

Update of the Development of the SEAMAP 5-year Plan

* Each Subcommittee member gave their changes/comments on the 5-year plan. D. Donaldson will incorporate the changes and mail to R. Peuser. He stated that if anyone has any other comments or changes, the deadline for inclusion will be November 17. J. Hanifen moved to request the TCC approve this document. R. Waller seconded and it passed unanimously.

Presentation of NMFS Reef Fish Sampling Activities

Kevin Rademacher gave a slide presentation on the NMFS/SEAMAP Reef Fish survey. He discussed the equipment they are using and said they are having some problems but they are optimistic in solving them by using multiple camera gear, lasers and an alternative counting method.

Status of FY1996 Funds

D. Donaldson said the house mark for SEAMAP was $700,000 but the Senate restored funding to $1.34 million. He said it will now go through committee but at this time it is still unknown if full funding, $1.34 million, will be restored. L. Simpson said that Congress is going with a continuing resolution which means programs will continue at the same rate as last year. He said the final decision should be made by November 13. L. Simpson also stated that with the exception of SEAMAP, fisheries fared extremely well. W. Tatum stated that all project documents should be submitted before November 1 at a 15% reduction in funding. If full funding is restored, applicants can amend their contracts to reflect the increased funds.

Work Group Reports

Adult Finfish

P. Thompson gave a presentation on the 1995 Gulf and Atlantic Bottom Longline Shark Assessment Survey (Attachment I). They surveyed the Gulf and South Atlantic up to North Carolina. They sampled coastal sharks out to 40 fathoms using longlines. He stated they proved they can do a successful longline shark survey fairly inexpensively. All of the gear has been purchased so the main costs for future surveys will be manpower and vessel time. He said that NMFS has 48 days planned in next year's budget for a shark survey.

Data Coordinating

Ken Savastano distributed an updated SEAMAP Data Management Report (Attachment II) and discussed it with the Subcommittee. W. Tatum suggested that the updated Attachment 12 of the report be incorporated into the 5-year plan. The SEAMAP on-line data base now contains 301 cruises with a total of 2,054,520 records (approximately 80 megabytes of data).

Environmental Data

P. Thompson reported that the last work group meeting was held on March 7, 1995. He said that he and K. Savastano will be meeting soon to discuss modifications to the environmental data sheet. He said that NMFS would like to start using a data temperature recorder on the CTDs as a calibrator. They are also going to put a recorder on their bongo nets to record temperature and depths as the nets goes down and comes back up. These units cost about $750 and after they use them for about six months they would like to send them to SEAMAP participants to use also.

At the March meeting the work group recommended and the Subcommittee agreed that NMFS could discontinue the extraction procedure for chlorophyll *a* sampling at each SEAMAP station and instead use a CTD fluorometer to obtain chlorophyll *a* data. For calibration purposes, it was agreed that NMFS will continue with the extraction technique once a day at noon over the range of the expected concentrations. The SEAMAP participants that don't have CTD flourometers will continue with the extraction technique. He said that Louisiana did an analysis on the two techniques and that NMFS was also going to do an analysis, but couldn't because they lost most of their samples because the freezer was unplugged.

J. Hanifen distributed a memo (Attachment III) that discussed analysis of samples collected during their summer and fall cruises on the laboratory fluorometric and spectrophotometric determinations of chlorophyll *a*. According to the results of the study, Louisiana feels that the use of fluorometry would not be acceptable in Louisiana waters, at least in the summer and fall, due to the underestimation of chlorophyll *a*. After discussion, it was decided that comparative studies continue before any decision is made.

P. Thompson said they are low on personnel and that is why they wanted to use the CTD fluorometer instead of the extraction method, and they didn't think there was much variability but, according to Louisiana's analysis there seems to be a problem. P. Thompson suggested that J. Hanifen and his staff, and other SEAMAP participants meet with NMFS personnel to discuss both methods and the techniques used to analyze the data to make sure everyone is collecting and analyzing the information in the same way. W. Tatum agreed they should meet to resolve this issue and asked that they inform the Subcommittee after the meeting. J. Hanifen said that he and P. Thompson will discuss the possibility of using Louisiana's laboratory and personnel to help NMFS with the back log of samples.

Plankton

J. Shultz reported there was no work group meeting since the last report. She said the fall plankton survey was very successful and they sampled more stations than ever before.

Red Drum

D. Donaldson said Mike Murphy was not able to come to the meeting because he is out to sea. He stated that in the handouts is the 1995 Gulf of Mexico Red Drum Aerial Survey that NMFS will be conducting through November (Attachment IV). The work group has not met since the last work group report. W. Tatum asked L. Simpson about the status of funding for the mark and recapture survey over the next two years. L. Simpson said that at this point he expects NMFS to get the funding it requested for the survey.

Reef Fish

R. Waller told the Subcommittee that the Proceedings for the Reef Fish Workshop has been mailed out for review and the final copy will be distributed before the end of the year. He reiterated what a success the work shop was. D. Donaldson said that in the handouts is a letter (Attachment V) from Brad Brown to W. Tatum in response to the recommendations from the Subcommittee that resulted from the Workshop. K. Rademacher showed slides and a video on work being done since the Workshop on the development of a methodology for sampling the oil and gas platforms.

Shrimp/Groundfish

S. Heath said the summer shrimp/groundfish cruises were successful. The objectives are to monitor the size distributions of penaeid shrimp during or prior to the migration of brown shrimp from bays to the open gulf, evaluate the Texas Closure, and to provide information on shrimp and groundfish stocks across the northern gulf from inshore waters to 50 fm. They sampled the eastern gulf to the Texas/Mexican border. A total of 323 trawl samples were taken out to 50 fm from Mobile Bay, AL to Brownsville, TX and all vessels recorded environmental data including temperatures, salinity, dissolved oxygen and chlorophyll at each station. The fall survey is scheduled to begin in October or November.

Election of Officers

* J. Shultz said that R. Waller was nominated Vice Chairman and W. Tatum Chairman. J. Hanifen moved election by acclamation. T. Cody seconded and it passed unanimously.

Other Business

B. Sutter gave a presentation on new NMFS Southeast Noncompetitive Reporting Requirements (Attachment VI). He stated that a fax was sent to everyone on October 11 explaining the changes. He said that basically, NMFS is now requiring one performance report each fiscal year due 90 days before the end of the current budget period and a final (completion) report will be required 90 days after the end of the single or multiple budget period project.

There being no further business, the meeting adjourned at 4:55 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

TCC DATA MANAGEMENT SUBCOMMITTEE
MINUTES
Monday, October 23 and Tuesday, October 24,1995
Mobile, Alabama

Vice Chairman Joseph O'Hop, Jr. called the meeting to order at 1:20 pm. The following members and others were present:

Members

Joseph O'Hop, FDEP/FMRI, St. Petersburg, Florida
Page Campbell, TPWD, Rockport, Texas
Tom Van Devender, MDMR, Biloxi, Mississippi
Joseph Shepard, LDWF, Baton Rouge, Louisiana

Staff

Dave Donaldson, SEAMAP Coordinator
Rick Leard, IJF Coordinator
Ron Lukens, Assistant Director
Larry B. Simpson, Director
Madeleine Travis, Staff Assistant

Others

William Hogarth, NMFS, Silver Spring, Maryland
Buck Sutter, NMFS, St. Petersburg, Florida
Commissioner Walter Penry, Daphne, Alabama

Adoption of Agenda

The agenda was modified by changing order of items 5 and 6. Item 8 - Electronics Communications Workshop - is to be presented by S. Lazauski at the Spring Meeting. The amended agenda was approved.

Approval of Minutes

The minutes of the meeting held on March 15, 1995 in Orlando, Florida were adopted with a minor typographical change.

Stock Assessment Team

Joe Shepard led a discussion of the Stock Assessment Team meeting held September 6 - 7 in which Behzad Mahmoudi presented the mullet stock assessment. The assessment is finalized, and it is hoped to get approval at TCC meeting to have mullet assessment printed and distributed.

Bob Muller will compile spotted seatrout stock assessments from each state. Florida has completed their assessment, while Louisiana's is in draft form and will be finalized soon. Texas is getting funding to complete work on their stock assessment, which will be completed by the end of the year. The Mississippi assessment is being conducted by Tut Warren at the Gulf Coast Research Laboratory, and Skip Lazauski is conducting the stock assessment for Alabama. It is hoped that spotted seatrout assessment will be compiled by October 1996.

Each state was asked to prioritize a list of species for assessment. Three top choices were flounder, sheepshead, and Atlantic croaker. State Directors will choose species for assessment at their meeting on Thursday.

State Reports

Texas - Page Campbell reported that the Texas State Legislature passed legislation in June 1995, to be enacted beginning September 1, for limited entry for inshore shrimping. There will be an appeals board established, and no new licenses will be issued. Sand pumps are now considered a legal gear. Red snapper limits have been changed to be compatible with federal regulations. A new saltwater hatchery, "Sea Center" Phase I, will open in November 1995, located in Freeport, TX. Admission will be free to the public. There has been a 5% cut in the Texas Parks and Wildlife Department (TPWD) budget and possibly another 5% cut in the future. TPWD has moved away from using general funds to trying to pay for everything out of licensing fees. A few employees have been cut and possibly a few more will be in the future. The red drum trophy tag program is a success with 4,380 tags returned to Austin since September 1995. A large fish kill occurred in August 1995 near Matagora Bay. It was estimated that 50,000,000 fish died as a result of low dissolved oxygen. Fish which died were mostly menhaden from 7" to 8" long. The value of the dead fish was estimated at $600,000. The brown tide in Laguna Madre has diminished, but is not completely gone. Hatchery problems associated with brown tide have been somewhat alleviated. Fishing has increased in the area. There is a feeling that the flounder catches have been declining and changes in regulations are being considered, including size limits for all fisherman, bag limits for recreational fishermen, and establishing a bag limit for commercial fishermen. The size limit is now 12" for both commercial and recreational fishermen and will probably be increased to 14". There was a discussion on a fish kill of hardhead catfish in Texas, Louisiana and Mississippi involving hemmoraghing. So far no pathogens or other causative factors have been detected.

Mississippi - Tom VanDevender reported that gill nets are still an important issue in Mississippi. There are groups that are not happy that the issue was defeated in legislature and it will be brought up again in January. The National Park Service has excluded commercial trawling within a mile of the barrier islands. The Mississippi Commission on Marine Resources has also closed recreational trawling. It is expected that within the year the bays should be reopened to recreational shrimping on a limited basis. This summer's shrimp harvest was better than expected and should be in the 8,000,000 pound range. The delivery of the electronic measuring board still being held up. Mississippi is in it's eighth year of a creel survey project and will try to incorporate their program with the RecFIN. The Tidelands Fund is now at $3,000,000 per year to the Mississippi Department of Marine Resources. About 80% of the money has been earmarked by the legislature for access projects such as piers, ramps, marinas, etc. for the three coastal counties and various cities. The original intent was for the money to be spent on conservation, education, law enforcement and marine management. It appears that the money that would have gone for research and purchase of wetlands is being spent on access projects. Some legislators are also interested in building hatcheries for flounder, spotted seatrout, and mullet. In late August, Mississippi experienced an extensive algal bloom which lasted for about two weeks. There were no fish kills associated with the bloom. Oyster season opened October 1, and a record harvest is expected. New FDA regulations concerning temperature and time regarding transport of oysters have caused some concerns. The Mississippi Legislature passed a law that any regulation passed by a state agency that has an effect of more than $100,000 on a constituency, must be accompanied by an economic impact statement. This has caused problems since there is no economist on staff.

Louisiana - Joe Shepard reported that the pictorial guide for marine and estuarine fish is being printed at the end of the year and should be available at next meeting. The Louisiana Legislature passed a bill changing gill netting requirements. The term gill net is no longer being used and has been replaced by "strike net." A mullet strike net and a pompano strike net are the only approved gear for Louisiana waters. A mullet strike net (3 1/2"stretch mesh) is the only gear that can be used commercially during mullet strike net season. A mullet strike net can also be used during spotted seatrout season. After the 1997 season, only rod and reel gear can be used to catch spotted seatrout commercially. A pompano strike net (5" stretch mesh) can be used with a permit to catch black drum, flounder, and sheepshead during spotted seatrout season. After spotted seatrout season is closed, pompano strike nets can no longer be used. Fishing commercially on weekends or nights for mullet is prohibited. The new laws are expected to be challenged. Louisiana

not implementing its trip ticket program due to lack of funds. Funding of the program has been postponed until 1998. It is expected to cost approximately $500,000 in the first year.

Florida - Joe O'Hop reported there has been an interest in king mackerel landings, and there is a possibility that they are not being coded properly on trip tickets. The NMFS is checking on it. Approximately 21 months ago, Florida was about two years behind on processing commercial trip ticket data, but they are now caught up. New staff has been hired, and the backlog has been eliminated. Data are now processed within three to four weeks of receipt. The Net Ban Amendment has required that the trip ticket data be up to date. In July 1995, the FDNR entered into a Memorandum of Understanding with the Florida Department of Labor to exchange confidential trip ticket data to determine who is eligible for program, and also for unemployment compensation purposes. Used internally by the Department of Labor, confidentiality of data is protected. It will expire in June of 1996. Approximately 2,000 claims have been submitted, with about 2/3 of those qualifying for some type of compensation. About 1,200 people have applied for the net buy-back program. In July, the Florida Marine Research Institute's (FMRI) fisheries program was examined by an external review panel. The preliminary report was favorable. Improvements have been made on commercial trip ticket program. Corrections to the master files can be made and individual fishermen's histories can be provided. A pilot recreational fishing survey was started in Tampa Bay in April. Florida hopes to get involved in recreational surveys for the entire state. Four methods have been incorporated to sample fishing: aerial survey counts of boats engaged in fishing; a roving boat survey; a shore-based roving creel at beaches, piers, and bridges; and a boat launch and access site survey.

GIS Symposium Proceedings

Joe O'Hop reported that Peter Rubec is editing the proceedings of the symposium on Geographic Information Systems and expects to be finished by Thanksgiving. He has gotten permission from the publishers of two of the three articles that were previously published to reprint them and is waiting for the third. He would like to include 8 to 12 color plates, some of which have been selected. He would like to publish the proceedings in a new series from FMRI, Technical Reports. It will indicate that the symposium was sponsored by the GSMFC, but was published under FMRI. It should be in print after the first quarter of 1996.

RecFIN/ComFIN Discussion

FIN MOU Signatures - Lukens indicated to the Subcommittee that the Memorandum of Understanding (MOU) for the Fisheries Information Network (FIN) needs to be adopted by the Subcommittee and sent up through the process for adoption by the full Commission. He reminded the Subcommittee that the MOU will serve to establish both the Recreational and Commercial Fisheries Information Networks (RecFIN and ComFIN), and has already been approved by the RecFIN and ComFIN Committees.

*J. Shepard made a motion to approve the FIN MOU, and to recommend that it be adopted by the full Commission. The motion was seconded and passed without objection.

T. Van Devender suggested that, since the MOU is a policy document and not a technical document, the recommendation for adoption should be forwarded to the State-Federal Fisheries Management Committee (SFFMC) for their consideration. It was decided that, as per protocol, the Subcommittee action should be reported to the Technical Coordinating Committee (TCC), and then the TCC would consider whether to defer the issue to the SFFMC.

RecFIN Planning - Lukens indicated that the document in the folder is the final draft of the plan, developed by Saul and Associates, to conduct the NMFS Marine Recreational Fishery Statistics Survey (MRFSS) in the Gulf of Mexico through the GSMFC. He indicated that there are two primary tasks for the Subcommittee to undertake, ie. edit and discuss the content of the proposal and discuss the funding issues. Lukens indicated that the funding levels per state should only address requirements needed to conduct the MRFSS in the Gulf region. Funding levels should not consider additional work that an individual state may want to conduct in excess of minimum MRFSS activities. Lukens indicated that it is the intention of the GSMFC to begin the work at the base level for the MRFSS in January 1997, with the intention of enhancing the survey after an appropriate period of adjustment and training. Lukens pointed out that the

strategy is to approve the proposal at the Subcommittee level and send it through the process to get approval from the full Commission. Following approval from the full Commission, the proposal would then be sent to the NMFS for their consideration. He added that the funding issues created by the appropriations bill language make the timing very good for moving ahead very quickly. He reiterated that the language provides $2.9 million to implement RecFIN, and is to be split in three equal parts for the Pacific, Atlantic, and Gulf regions. The $2.9 million is a line item in the NMFS budget for recreational fish harvest monitoring, and is used to fund the MRFSS. It is imperative that the proposal assure the NMFS that the continuity of the MRFSS will be preserved, and that the transition between conducting the survey through the contractor and conducting the survey through the GSMFC must be smooth. It was asked if Lukens intended to conduct a page-by-page review and edit of the proposal. Lukens indicated that was his intention. J. Shepard asked if the review and edit could be done on the following day during the second half of the schedule. The Subcommittee agreed that that would be a good approach, since it would give the members time to scan the document again. P. Campbell asked what will happen once the proposal is submitted to the NMFS. Lukens indicated that he does not expect the NMFS to be able to commit to the proposed work, since it is scheduled to begin in 1997; however, the transmittal letter to the NMFS will clearly request that they begin work with the GSMFC and states in January 1996 to work towards implementation in 1997. He stated that the GSMFC will then expect a response from the NMFS regarding that plan.

It was suggested that the Subcommittee recommend the establishment of a Transition Team on behalf of the GSMFC and states that would have the responsibility of providing guidance over the 1996 transition activities that need to be completed in order to conduct the survey in 1997. The Subcommittee agreed, without objection, to recommend a Transition Team, and further agreed that the state representatives on the TCC Data Management Subcommittee should constitute the Transition Team. At that point, the Subcommittee agreed to postpone further action on the proposal until the second half of the meeting schedule on Tuesday morning.

Interjurisdictional Planning

Dr. Rick Leard, GSMFC Interjurisdictional Fisheries Management Program, requested that the Subcommittee consider discussing and recommending one or several species for consideration for the development of an interstate fishery management plan (FMP) for the upcoming fiscal year. Currently, the GSMFC is finalizing an interstate FMP for striped mullet and has begun development of a plan for spotted seatrout. Leard indicated that the Stock Assessment Team had already recommended flounder, sheepshead, and Atlantic croaker, in that order of priority. He added that the recommendations will be given to the State-Federal Fisheries Management Committee, whose responsibility it is to name the species that will be the focus of interstate planning. The Subcommittee agreed to take up Leard's request under Other Business.

Electronic Communications Workshop

Lukens indicated that the Subcommittee had asked John Poffenberger, NMFS, to begin work on a workshop to address the various aspects of electronic communications. He indicated that he and D. Donaldson had been discussing this issue and agreed that a workshop is probably not warranted. He pointed out that most agencies are beginning to use the Internet, and much of the Internet is accessible through software programs that negate the need for much education. One of the main needs is to know the hardware and software capabilities that each agency has, and whether or not they have Internet access. Once it is known that all the agencies are compatible for using e-mail and for transferring files, the only thing left is to set up a process for routine electronic communication. Lukens then advised the Subcommittee that, rather that hold a workshop, the group should hold an extended session during the next regular meeting devoted to discussing the various aspects of the Internet, e-mail, and file transfers that will affect the gamut of electronic communications capabilities that the Subcommittee expects to have. The Subcommittee agreed with the approach. Lukens indicated that he and Donaldson will develop an outline and categories of information needs for the next meeting for a dedicated session on electronic communications.

Lukens reminded the Subcommittee that the Fisheries Information Network recommended at the last meeting, held in Miami in September 1995, that the GSMFC develop a home page to facilitate electronic communications. He

indicated that it is the intent of the GSMFC to follow that recommendation. This will allow the DMS/RecFIN/ComFIN members to download minutes of meetings, meeting schedules, and other program documents from the home page and reduce mailing time and costs. Documents that have been reviewed and edited can be sent back to the GSMFC through the File Transfer Protocol. This method of communication will make the entire process more efficient and productive. O'Hop indicated that there may be an individual at his office that could help the GSMFC set up the home page.

Stock Assessment Workshop

Lukens informed the Subcommittee that the GSMFC office is in the process of transferring oversight of the stock assessment training workshops to the Interjurisdictional Fisheries Management Program, primarily because stock assessments are a function of the interstate planning activities conducted under that program. He also reminded the Subcommittee that the last workshop was funded by the Gulf of Mexico Program of the Environmental Protection Agency through a grant to the NMFS Southeast Fisheries Science Center. That program focused on the use of spawning potential ratios (SPR) as a stock assessment technique. He suggested that it is a good time to be thinking about what the next workshop topic should be.

At the last Stock Assessment Team (SAT) meeting, the SAT discussed what should be done next, and R. Leard provided a summary of the SAT's conclusions. He indicated that the workshop would be in two parts, the first consisting of a session with individuals who are expert in aging fish through otolith analysis to develop guidelines on all aspects of aging fish using otoliths, on a species-by-species basis, and the second consisting of actual aging of fish through removing, preparing, and analyzing otoliths as a training exercise. The ultimate goal of the two part workshop is to provide guidance so that all scientists in the Gulf region are aging fish the same way. This is very important for interjurisdictional species for which a number of people are conducting aging studies.

J. Shepard, Chairman of the SAT, indicated that he had not thought of the exercise as the next stock assessment training workshop. The genesis of the discussion at the SAT meeting was that there needs to be a document that provides standardized procedures for aging fish using otoliths. He suggested that the second half of the proposed activity would be what he thought of as the training workshop. His suggestion was to hold the workshop to develop the standardized procedures and protocols as a separate activity from the training workshop, then use the document produced to guide the training activities. Shepard added that there was a discussion at the last stock assessment training workshop about what the next step should be. The participants indicated that the process should continue on with refining aspects of using SPR, such how to develop selectivities, etc. Leard indicated that there would be a good possibility of doing both activities. After some additional discussion, it was decided that the otolith activities should be planned and implemented separate from the stock assessment training workshop, which should build on the previous workshops. In that regard, the next stock assessment training workshop should follow-up on SPR. J. Shepard agreed to take the lead in determining the specific subject matter and who will provide instruction for the stock assessment workshop.

RecFIN Planning

During the Subcommittee session on Tuesday morning, the Subcommittee discussed and edited a proposal for submission to the NMFS regarding conducting the MRFSS through the GSMFC in the Gulf of Mexico region. The final proposal will serve as the administrative record of this part of the meeting.

Election of Officers

Skip Lazauski was elected Chairman, and Joe O'Hop was elected Vice-Chairman for the 1996 fiscal year.

Other Business

Following up on the discussion regarding recommendations for the next species for which to develop an interstate FMP, the Subcommittee unanimously agreed to recommend the same list as provided by the SAT, including flounder, sheepshead, and Atlantic croaker, in that order of priority.

There being no further business, the meeting was adjourned at 11:40 am.

APPROVED BY:
COMMITTEE CHAIRMAN
3/18/96

TCC ANADROMOUS FISH SUBCOMMITTEE
MINUTES
Monday, October 23, 1995
Mobile, Alabama

Chairman Doug Frugé called the meeting to order at 9:10 a.m. The following were in attendance:

Members

Norman Boyd, TPWD, Rockport, TX
Doug Frugé, FWS, Ocean Springs, MS
Charles Mesing, FGFFC, Midway, FL
Larry Nicholson, GCRL, Ocean Springs, MS
Tom Serota, FWS, Corpus Christi, TX
Gary Tilyou, LDWF, Baton Rouge, LA

Staff

Ronald R. Lukens, Assistant Director
Nancy K. Marcellus, Administrative Assistant

Others

Frederick "Buck" Sutter, NMFS, St. Petersburg, FL
William Hogarth, NMFS, Silver Spring, MD
Walter Penry, Commissioner, Daphne, Alabama
Jerry Mambretti, TPWD, Port Arthur, TX
Ed Joyce, Tallahasse, FL

Adoption of Agenda

R. Lukens added two items to be discussed under Other Business which included work on the Mississippi River and alternate subcommittee meeting locations. The agenda was adopted with those additions.

Approval of Minutes

The minutes from the March 14, 1995 meeting held in Orlando, Florida were adopted as presented.

State/Federal Reports

Louisiana - G. Tilyou reported that harvest of Gulf race striped bass stocked over the past three years in Indian Creek Reservoir to establish a broodstock source is relatively low. There is little directed effort by fishermen to catch striped bass in the lake. The state plans to begin gill netting this fall to evaluate survival and growth of striped bass stocked so far. Tilyou also mentioned that the Louisiana Department of Wildlife and Fisheries received the letter from the Commission urging that Louisiana protect the Indian Creek striped bass through the implementation of the 18-inch minimum size. The Department acknowledged the Commission's letter and concern, but noted that they believe the Indian Creek Reservoir striped bass are currently being adequately protected through existing regulations.

26,000 Phase I fingerlings were stocked in Twin Buttes Lake and 58,000 stocked in Lake Waco. Equal numbers of Atlantic race fish were also stocked in the lakes to test relative growth and survival.

Mississippi - L. Nicholson reported that the Gulf Coast Research Laboratory stocked about 37,000 Phase I Gulf and Atlantic race fingerlings in the Pascagoula River and 35,000 in the Pearl River. They will soon be tagging and stocking about 20,000 Phase II fingerlings in the two rivers. Nicholson also noted that tag returns were down this year again for the second year.

Florida - C. Mesing reported that the Florida Game and Freshwater Fish Commission has a new fisheries director, Dr. Jerry Shireman, and as a result may be changing programmatic direction. The Florida Game and Freshwater Fish Commission is in the process of reassessing its priorities based on available funding, and may have to significantly reduce the amount of effort currently being expended on Gulf striped bass restoration. The role of Florida in broodstock collection and in other efforts to restore striped bass in the Apalachicola, Yellow, and Black rivers has been critical in maintaining Gulf race striped bass in the Apalachicola-Chattahoochee-Flint (ACF) system, as well as efforts to expand distribution of Gulf race fingerlings to other Gulf streams. Florida may have to curtail most of this work unless additional funding is obtained. If this work is curtailed there could be serious consequences, not only for the Gulf-wide restoration effort, but also for the future maintenance of Gulf race fish in the ACF system. The Subcommittee agreed to bring this issue to the Technical Coordinating Committee to recommend that the GSMFC send a letter to the U.S. Fish and Wildlife Service alerting them to this situation, and encouraging them to do everything possible, including financial assistance, to assure that the critical work Florida has been doing in this regard is continued. Individual states with vested interests were also urged to send their own letters of support.

U.S. Fish and Wildlife Service - Frugé reported that state and federal hatcheries stocked about 1.8 million Phase I Gulf race striped bass fingerlings in rivers and reservoirs in Florida, Georgia, Alabama, Mississippi, Louisiana, and Texas this past spring and summer. Frugé also mentioned that the draft final report on the Sabine River Radio Telemetry Project will be distributed at the end of 1995.

1996 GSMFC Sport Fish Restoration Administrative Program

R. Lukens advised the Subcommittee that there were still plenty of striped bass caps available for the states. C. Mesing requested three more boxes for Florida and L. Nicholson requested two more boxes for Mississippi.

Lukens reported that 1996 Sport Fish Restoration proposal has been submitted and approved with two specific activities identified.

a. Pascagoula River Contaminants Survey - Lukens distributed a draft proposal to conduct the contaminants survey. The survey will simply locate areas along the Pascagoula River where contaminants enter the system. Ramifications from the study have not been considered at this time. This will provide data regarding habitat criteria for striped bass in the Pascagoula River. Lukens asked that the Subcommittee review the proposal and provide the input back to him. The proposal will have to go out on bid.

b. Striped Bass Nuclear DNA Project - Lukens distributed a proposal from Ike Wirgin of New York University Medical Center entitled "Development and Use of Striped Bass Microsatellite Nuclear DNA Sequences to Evaluate Introgression in the A-C-F System." This is the next and hopefully the last step in the Subcommittee's DNA work. Objectives of the proposal are to isolate microsatellite nDNA sequences from a striped bass genomic DNA library; evaluate levels of genetic variation (heterozygosity) at 10-15 individual microsatellite sequences in 10 striped bass each from the ACF and systems along the southeast Atlantic coast including Georgia (Ogeechee River), South Carolina (Santee-Cooper system), and North Carolina (Roanoke River); to use informative microsatellite sequences to quantify the extent of nDNA differentiation between striped bass collected from the ACF system and a large number of fish from Atlantic coast rivers; and, to use informative microsatellite sequences to estimate the extent of nDNA relatedness between extant striped bass in the ACF and archived "pure" ACF fish collected prior to the introduction of Atlantic fish into the system.

Update on Striped Bass DNA Survey

A copy of the final report from the project "A Comparison of Mitochondrial DNA Genotypes in Extant and Archived Striped Bass from the Apalachicola-Chattahoochee-Flint River System" submitted by Ike Wirgin, was distributed to the Subcommittee. Major points of the report are the results demonstrate the presence of fish with the XbaI-1 genotype in the A-C-F system prior to the introductions starting in the mid-1970s of fish of Atlantic ancestry; results also suggest that the extent of introgression of Atlantic mitochondrial genomes in the extant ACF population has not been significant; results indicate that the extant ACF population is genetically very similar to the historical "pure" population and that it is the only extant population along the Gulf which exhibits the diagnostic Gulf genotype. In additional studies, they have characterized mtDNA genotypes in striped bass from several sites in Texas and Louisiana and none of the fish exhibited the XbaI-2 genotype; results strongly suggest that extant striped bass populations in these other Gulf rivers result directly from the introduction of hatchery-produced Atlantic fish or are their immediate descendants; and finally, if an objective of the coastwide striped bass management plan is the restoration of endemic Gulf coast populations, the report suggests that only the ACF fish or their descendants should be used to reestablish these populations.

Lukens polled the Subcommittee on the number of striped bass samples each state has sent to Ike Wirgin at the New York University Medical Center for analysis in 1995. C. Mesing reported that Florida has sent 65 samples and can send more if needed; G. Tilyou reported that Louisiana has not sent any and does not anticipate sending any; N. Boyd said Texas has sent 70 samples; and L. Nicholson reported that no samples from Mississippi were sent. Lukens advised that December 31 is the end of this subcontract and samples should be submitted before then.

Pearl River Canal Issues

During the break, Frugé tried to contact the Vicksburg Corps of Engineers office regarding this issue but was unable to obtain any new information. Frugé advised that he would try to get an update and send it out to the Subcommittee.

Status of Gulf Sturgeon Recovery Plan

Lukens reported on information regarding Gulf sturgeon in the Pearl River which was noted in the Mississippi Sea Grant Advisory Services newsletter. The newsletter stated that the Waterways Experiment Station, in cooperation with the Mississippi Department of Wildlife, Fisheries, and Parks and the Louisiana Department of Fish and Wildlife, is monitoring Gulf sturgeon populations in the Pearl River. The objectives are to determine population age and growth, monitor movements, evaluate habitat preferences, and identify spawning and nursery sites. Preliminary data indicate that sturgeon migrate into the river system in late spring, occupy deep holes in summer with limited movement, and then migrate out of the system in fall. No spawning or nursery sites have been identified to date; however, juveniles were frequently caught at the freshwater/saltwater interface as previously reported in sturgeon literature.

Lukens advised that the Gulf Sturgeon Recovery Plan was submitted and approved by the Gulf States Marine Fisheries Commission Technical Coordinating Committee at the Spring Meeting held in Orlando, Florida in March 1995. It was subsequently submitted and approved by the State-Federal Fisheries Management Committee and the full Commission at the Washington, DC meeting in April 1995. The Fish and Wildlife Service is in the process of obtaining signatures for the title page of the Plan.

The Subcommittee discussed the possibility of maintaining the Gulf Sturgeon Recovery Team to serve as a focal point for the Gulf Sturgeon Recovery Plan. The Subcommittee agreed that this would be a good idea and Lukens advised that he would look into it.

Lake Talquin Update

Mesing reported that the Florida Game and Freshwater Fish Commission will be extending their Lake Talquin study on Gulf versus Atlantic race growth and survival one more year. Fall sampling for that study will be conducted soon and may provide some conclusive results.

Striped Bass Production and Allocation - State and Federal

1995 Distribution of Fry - D. Frugé distributed a summary of 1995 Gulf of Mexico striped bass stocking. Included in the summary were stocking location, planned stocking/fry requests, actual stocking, genetics information, date stocked, and the hatchery which produced the fry.

1996 Requests - Frugé mentioned that the eleven federal hatcheries which were proposed to be closed were given a year's extension for the new fiscal year. The states still have the option to take over management of a hatchery proposed for closure if they so desire.

L. Nicholson's 1996 request for Mississippi consisted of 250,000 Atlantic fry and 250,000 Gulf fry between 24-48 hours old. Gary Tilyou requested 32,000 Phase I fingerlings for Louisiana stocking and Norman Boyd requested 400,000 fry for Texas.

Pascagoula River Cooperative Striped Bass Project

D. Frugé distributed a copy of the proposal, "Assessment of population and habitat and development of a restoration plan for anadromous striped bass in the Pascagoula River, Mississippi", submitted by the Gulf States Marine Fisheries Commission for use of Federal Aid Administrative Funds. The project would result in a multi-state cooperative effort to restore a self-sustaining population of anadromous striped bass in the Pascagoula River, Mississippi. Efforts would focus on: evaluation/restoration of habitat; assessment of striped bass population characteristics; evaluation/continuation of restoration stocking; and evaluation and potential modification of harvest regulations. Due to the hatchery proposals and the small amount of money available for projects this year, the proposal was not funded. The Subcommittee agreed to keep resubmitting the proposal and to expand the scope of the proposal to include other anadromous species rather than just striped bass.

Genetics Comparison Study

L. Nicholson at the Gulf Coast Research Laboratory received $20,000 to conduct a genetics comparison study. The project will focus on comparison of Gulf and Atlantic race striped bass life cycles in Mississippi river systems. The project was submitted by D. Frugé to the U.S. Fish and Wildlife Service for year end funding. Funding is for one year.

Update on Sonic/Radio Tag Development

Frugé reported that the radio/sonic tag is in the final stages of development. The radio prototype is complete and will be constructed into the miniature tag design. The sonic (transducer) tag is complete. An internal antenna is also being tested. The tag will last 5-10 years and should have a range of 1-5 miles depending on current conditions. The receiver, which will eliminate external noise, is in the final stages of development. Sonar buoys are complete and capable of sending signals to an office computer when programmed to do so. It is hoped to have the final product by February 1996 when netting on the Choctawhatchee River resumes.

Gulf Sturgeon DNA Survey Update

Frugé reported that Ike Wirgin from New York University Medical Center is nearing completion on the Gulf Sturgeon DNA Survey Update. Thirteen samples from the Escambia River and ten samples from the Pascagoula River are still left to analyze. Basically there are three different groups of Gulf sturgeon: the eastern, central, and western. Sturgeon from the Yellow and Choctawhatchee Rivers are also genetically distinct. A final report, which will be a draft for a publication, will be available soon.

Election of Officers

Doug Frugé was elected to serve as Chairman for the second year. Charles Mesing will serve as Vice-chairman.

Other Business

Lukens indicated that he had spoken with Sidney Montgomery, who works at the Tara Wildlife Management Area, regarding the possibility of holding a Subcommittee meeting there. Tara is located just outside Vicksburg, Mississippi, along the Mississippi River. He indicated that a river tour could be arranged so the Subcommittee could view striped bass habitat and possibly conduct some sampling. A series of finger dikes along both banks of the river provide good striped bass habitat. He also indicated that the meeting would take the place of a regularly scheduled meeting in conjunction with the full Commission, probably in September or October 1996. The Subcommittee agreed to the suggestion and authorized Lukens to look into the arrangements.

There being no further business, the meeting adjourned at 3:15 p.m.

APPROVED BY:
Vincent Guillory
COMMITTEE CHAIRMAN

TCC CRAB SUBCOMMITTEE
MINUTES
October 23, 1995
Mobile, AL

Tom Wagner, Chairman, called the meeting to order at 8:20 a.m. The following were in attendance:

Members
Vince Guillory, LDWF, Bourg, LA
Steve Heath, ADCNR/MRD, Dauphin Island, AL
Harriet Perry, GCRL, Ocean Springs, MS
Phil Steele, FDEP, St. Petersburg, FL
Tom Wagner, TPWD, Fulton, TX

Others
Ed Joyce, Retired, Tallahassee, FL
Charles Moss, Marine Advisory Service, Lake Jackson, TX
Walter Penry, AL House of Representatives, Daphne, AL

Staff
Larry B. Simpson, Executive Director, Ocean Springs, MS
Richard L. Leard, Program Coordinator, Ocean Springs, MS
Cynthia B. Yocom, Staff Assistant, Ocean Springs, MS

Adoption of Agenda

Items #5 Discussion of Fishery-Independent Data and #7 Discussion of Juvenile Sampling Data will be discussed as one agenda item. The agenda was then adopted with this change.

Adoption of Minutes

The minutes of the meeting held March 14, 1995, in Lake Buena Vista, Florida, were adopted with a minor editorial change by Tom Wagner.

State Reports

Florida - Phil Steele reported Florida's 1995 blue crab landings at 4,650,178 pounds representing 21,532 trips. The Florida Marine Fisheries Commission will take action this year to scale back traps. Genetic studies on blue crab continue, but Steele noted that stone crab studies can no longer be performed using P.L. 99-659 funds. Steele distributed "Indices of Relative Abundance for *C. sapidus* Fixed Stations: Tampa Bay & Charlotte Harbor" and "Commercial Blue Crab Landings by Coast and Month"; Steele asked Commission staff to copy and distribute the FDEP Catch Rate Summaries for 1985-1994 and The Assessment of Chesapeake Bay Blue Crab Stock to the entire subcommittee.

Alabama - Steve Heath reported 1994 blue crab landings at 2.7 million pounds which represents a 7% increase in landings. Value for 1994 totalled $1.5 million which represents a 30% increase in total value. Alabama experienced an 18% reduction in the number of licenses sold, but fishermen experienced a 60% increase in average income. The sociological/political conflicts are still a major problem in the fishery. Heath reported that the Alabama Seafood Association which was formed to help with the gill net issue has chosen a crab committee which will address classic conflict issues. A recent example, the delta closures occurred after the Corps of Engineers received numerous complaints from property owners and recreational boaters concerning the

number and placement of blue crab traps. Crab fishermen actually suggested the delta closure to show a spirit of cooperation and because crab size in this area was small.

Mississippi - Harriet Perry noted that landings in Mississippi continue to be unreported. "mom and pop" operations continue where crab products are distributed directly to restaurants. Perry stated that the fishery is overregulated, and in Mississippi, all crab harvesting activity has been banned north of the CSX railroad bridge. Perry questions the biological or sociological validity for recent regulations. Perry reported that the low-calcium experiment was suspended due to a lack of peelers. Studies on megalopal settlement and different filters continue, and Perry distributed a paper recently published by the American Fisheries Society on recently *Menippe adina* work. In the megalopal settlement study, three different stations will be sampled in the coming year, and sampling will begin earlier in the year (April).

Louisiana - Vince Guillory reported that 11-12 bills affecting blue crab were introduced to the Louisiana legislature this year. The Crab Task Force sponsored bills requiring a shedder's license ($100.00) and a crab trap gear license moratorium. In 1989, the crab trap gear licensed peaked at 3,000; this license now fluctuates in numbers between 2,500 and 2,800. A work box definition passed the legislature, and the work box is now excluded from the mandatory undersize crab law. Legislation was introduced for 2% bycatch of berried crabs, and berried crabs at the work box cannot be ticketed. The Crab Task Force was asked for their input regarding problems with ghost traps. The WLFC promulgated a regulation to remove traps from Sabine Lake for the first two weeks of the August shrimp season. Legislation introduced but not passed included a bill sponsored by dealers on escape rings, a bill sponsored by the Crab Task Force on dual liability, a bill sponsored by LDWF enforcement on recreational bag limits, and a bill sponsored by dealers on minimum size of 3 1/2" on peeler crabs which was intended to exclude white-line crabs. Guillory reported January-August 1995 landings in Louisiana at 20,874,000 pounds. Guillory noted that the species profile may be printed in November or December and the management profile is under review. Ongoing studies include blue crab trap selectivity (mesh size), effects of trap mesh size and type on peeler crab catches, a lateral spine variability and weight size and carapace width-size regressions in blue crab, review and evaluation of escape vents in blue crab traps, investigation of catch rates of traps with different funnel types, and red drum food habits.

Texas - Tom Wagner reported landings for 1994 in Texas at 5.1 million pounds which was down from 8 million pounds in 1993. Value for 1994 is $3 million. Value is up 23% - product sold at 59¢ per pound in 1995 compared to 48¢ per pound in 1994. Wagner reported no new regulations had gone into effect this year. Texas has two ongoing studies. High salinity tolerance trials were conducted on five recreationally or commercially important marine species to estimate an exposure time that would result in death of 50% of the exposed organisms. Blue crabs were one of the species and reached mortality levels at 67 minutes. This study was sponsored by MARFIN. Degradable panel materials are being studied coastwide, and the study will be completed next summer. Wagner noted the bay and bait shrimp fishery limited entry plan and noted that crab fishery may be the next fishery to be impacted by limited entry in Texas.

Discussion of Texas Juvenile Sampling and Fishery-Independent Data

Tom Wagner presented slides of Texas juvenile sampling data. He reported that Texas uses bag-seine data as the best indicator for juvenile abundance, and Texas has been collecting this data since 1978. Texas also uses bay trawl catch data. Data was reported in total numbers and not by size. Wagner noted that for the most part, juveniles are caught prior to August. Texas data in 1995 show a decrease in juvenile abundance, and mean size seems to be decreasing. Gulf trawls are sampled out to 10 miles. Fishery-independent data is summarized by month, and hydrological data is collected including salinity, temperature, and dissolved oxygen from each of the bag seine and bay trawl samples.

Blue Crab Symposium

A symposium on the blue crab fisheries of North America addressing research, conservation, and management will be held April 18-19, 1996, in association with the 88th Annual Meeting of the National Shellfisheries Association in Baltimore, Maryland. Larry B. Simpson informed the subcommittee that the GSMFC will defray the cost for one member of the Crab Subcommittee (selected by the subcommittee) to attend. By consensus, the committee chose Vince Guillory to represent the Gulf component. Each subcommittee member will provide Vince with input to a regional perspective of the blue crab fishery in the Gulf of Mexico including application of a stock assessment for the gulf (Phil Steele), megalopal studies (Harriet Perry), the processing sector (Steve Heath), and regulations (Vince Guillory). The subcommittee asked GSMFC staff to send each member a copy of the IJF implementation matrix on crab so they may review and make necessary updates.

Change in Texas Representative

Texas recently updated its representation on GSMFC subcommittees and technical task forces. Paul Hammerschmidt was designated to replace Tom Wagner as Texas' representative on the Blue Crab Subcommittee. Harriet Perry made a motion that Tom Wagner be designated proxy for Texas' representative. Vince Guillory seconded the motion which passed unanimously.

Election of Chairman

The Crab Subcommittee presented the outgoing chairman a memento of their appreciation for his devotion and work during his term as chairman and a representative of the subcommittee. Wagner thanked the subcommittee and opened the floor for chairman nominations. Harriet Perry nominated Vince Guillory as chairman of the TCC Crab Subcommittee. Phil Steele seconded the motion, and Vince Guillory was elected chairman by unanimous acclamation.

Other Business

By unanimous accord, the Crab Subcommittee requests that the TCC recommend to the S-FFMC that the Blue Crab FMP be revised. Concerns over CPUE, overfishing, and questions regarding year-class fishery were all discussed by the subcommittee. The time for revision is enhanced by new stock assessment tools, new biological and sociological data, new fishery-independent data, new regulations, and effort shifting.

There being no further business, the meeting adjourned at 12:22 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

S-FFMC MENHADEN ADVISORY COMMITTEE
MINUTES
October 24, 1995
Mobile, AL

Joe Smith, proxy for chairman John Merriner, called the meeting to order at 8:20 a.m. The following were in attendance.

Members

Joseph Smith, NMFS, Beaufort, NC (*proxy for John Merriner*)
Vince Guillory, LDWF, Bourg, LA
Glade Woods, MDMR, Biloxi, MS
Jerry Mambretti, TPWD, Port Arthur, TX
Prior Bailey, Zapata Protein (USA), Inc., Moss Point, MS
W. Borden Wallace, Daybrook Fisheries, Inc., Empire, LA
Behzad Mahmoudi, FDEP, St. Petersburg, FL

Staff

Larry Simpson, GSMFC, Ocean Springs, MS
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Others

Richard Condrey, CFI, LSU, Baton Rouge, LA
Corky Perret, LDWF, Baton Rouge, LA
Ed Joyce, retired from FDEP, Tallahassee, FL
Jim Hanifen, LDWF, Baton Rouge, LA
Walter Penry, GSMFC, Daphne, AL
Buck Sutter, NMFS, St. Petersburg, FL
Tom Van Devender, MDMR, Biloxi, MS
Ed Conklin, FDEP, Tallahassee, FL
Joe Herring, LDWF, Baton Rouge, LA
Bill Hogarth, NMFS, Silver Springs, MD
Norman Boyd, TPWD, Port O'Connor, TX

Adoption of Agenda

B. Wallace moved and V. Guillory seconded that the agenda be adopted as presented. The motion carried unanimously.

Approval of Minutes

V. Guillory moved and J. Mambretti seconded that the minutes be approved as written. The motion carried unanimously.

Review of 1995 Fishing Season

J. Smith reported that through September 430,100 mt of Gulf menhaden had been landed by the reduction fishery, down 39% from 1994 and 16% below the previous 5-year average. He projected that landings through October (the end of the season) would be about 460,000 mt, 300,000 mt below 1994, representing a record decline in landings from on season to the next. Landings were also 30% below the projection and 12% below the lower confidence limit of the projection. The catch was composed of 56% age-2 fish and 41% age-1. He also reported that 6 reduction plants and 52 vessels participated in the fishery.

J. Smith noted that a combination of factors were responsible for the large reduction in catch. Windy and cool weather curtailed fishing in April and May off Mississippi and western Louisiana, and several weeks of fishing were lost in August because of Hurricane Erin and in October because of Hurricane Opal. He also noted that 2-3 days of fishing were lost around the July 4th holiday. J. Smith also reported that the hypoxic zone off Louisiana was the largest ever mapped and that fishing effort in the area had declined about 57%, while catch had declined about 68%.

J. Smith reported that due to personnel cuts, the port sampling program in 1995 was conducted under a contract with the GSMFC. He described how the program worked and noted that the new contract arrangement was very successful. J. Smith also stated that the CDFRs for 1994 had been key-entered and that reports for 1995 were being entered as received.

Status of Bycatch Study

R. Condrey reviewed the status of the third year of study and future research plans. He described the continuing problem with overestimating the magnitude and underestimating the variance of bycatch because of the lack of statistical abilities to fit data to appropriate analyses. He stated that he would continue to work on this problem. R. Condrey also reported that he and other researchers are working with the industry to develop ways to reduce bycatch particularly by new designs of large fish deflectors and the hose cage. They were also looking at ways to release occasional dolphins without having to release the entire catch in a set. He noted that a future research effort would look at the behavior and energetics of birds (primarily pelicans and gulls) associated with menhaden fishing.

Review of Net Legislation/Regulations

The committee reviewed the recently completed "A Summary of Marine Fishing Laws and Regulations for the Gulf States" and noted numerous changes from the previous year. They will continue to monitor their effects on the industry.

Discussion of LIDAR Demonstration Project

B. Mahmoudi discussed the history of Florida's involvement with LIDAR, and its desire to conduct a demonstration project on small coastal pelagic resources off Florida. He noted that scheduling problems had precluded the project to date; however, they would probably have a report for the Spring 1996 meeting.

Frank Cianciotto, Kamen Aerospace Corporation, described their efforts to take technology from the Persian Gulf War and apply it to fisheries. He stated that they have worked on the West Coast of the United States, the Gulf of Mexico, and recently in waters off Chili. He discussed the LIDAR system and how it is used to detect surface and subsurface objects noting that it is similar to radar in that light (laser) is bounced off objects and the back-scattering is translated into an image. He also showed a film of Kamen's work off Chili.

Industry Reclassification under Marine Mammal Protection Act

J. Smith noted that the Atlantic menhaden fishery north of Virginia had been reclassified from Category III to II (less than 1% to 1%-50% of the Potential Biological Removal [PBR]). The committee also questioned the criteria used to establish the PBR and the seemingly broad difference between categories. By consensus, the committee agreed to write the NMFS and request an explanation of the PBR and the rationale for the categories.

Discussion of Efforts in Texas to Reduce Bycatch

J. Mambretti reported that actions taken by the industry at the beginning of the year were very successful in preventing bycatch problems that occurred in 1994. He also stated that the industry had helped in efforts to identify a dinoflagellate bloom that occurred during the season.

Ulcerative Mycosis

J. Smith reported on outbreaks of the dinoflagellate, *Pfiesteria piscicida*, in Atlantic menhaden. He noted that the organism not only kills fish, but its toxins may also be a hazard to humans. It was noted that blooms usually occur in waters with low salinity and high nutrient content, but it had not been observed in the Gulf.

Election of Chairman

V. Guillory nominated J. Mambretti as chairman, and B. Wallace seconded. J. Mambretti was elected without opposition.

There being no further business, the meeting was adjourned at 11:50 a.m.

APPROVED BY:
JKW
COMMITTEE CHAIRMAN

LAW ENFORCEMENT COMMITTEE (LEC)
MINUTES
October 25, 1995
Mobile, AL

Jerry Waller, Chairman, called the meeting to order at 8:20 a.m. The following were in attendance:

Members

Terry Bakker, MDWFP, Biloxi, MS
Suzanne Horn, NMFS, St. Petersburg, FL
Mark Johnson, USCG, New Orleans, LA
Perry Joyner, FMP, Tallahassee, FL
Larry Matherne, LDWF, Baton Rouge, LA (*proxy for Tommy Candies*)
Bill Robinson, TPWD, Austin, TX
Jerry Waller, ADCNR/MRD, Dauphin Island, AL

Others

Pryor Bailey, Zapata, Moss Point, MS
Bill Hogarth, NMFS, Washington, DC
Dan Hughes, ADCNR, Gulf Shores, AL
Ed Joyce (retired),Tallahassee, FL
Richard Livingston, NMFS, St. Petersburg, FL
Karen Raine, NOAA General Counsel, St. Petersburg, FL
Tom Shuler, NMFS, Carriere, MS

Staff

Larry B. Simpson, Executive Director, Ocean Springs, MS
Richard Leard, Program Coordinator, Ocean Springs
Cynthia Yocom, Staff Assistant, Ocean Springs, MS

Adoption of Agenda

The discussion on net ban laws was dropped from the agenda. The remaining items of the agenda were adopted as presented; it was noted, however, that items may not be addressed in the order on the agenda.

Adoption of Minutes

The minutes of the meeting held March 16, 1995, in Lake Buena Vista, Florida, were adopted as presented.

ISSC Activity

At the Orlando meeting, the ISSC approved a time/temperature matrix for the oyster fishery. During specific times of the year (especially the warmer, summer months), oysters must be refrigerated within a certain time period. All states are enforcing the matrix. Texas utilizes a tagging system; all oysters to be sold on the half shell must be refrigerated within six hours and are tagged as such. Oysters sold in Texas for other culinary uses are tagged differently.

Consistency of Regulations

*The LEC remains concerned about the inconsistency of regulations among the Gulf States and continues to work toward achieving consistent regulations. Mark Johnson made a motion that the LEC request that the Commissioners support adoption of federal regulations on bag and size limits by all Gulf States in the commercial and recreational red snapper fishery. The motion was seconded by Bill Robinson and passed unanimously.

Vessel Documentation

Mark Johnson, USCG, continues efforts to answer questions to concerns raised by the change in the USCG's vessel documentation form and had received answers to the following questions:

- Question - Why does the USCG documentation show a post office box for the address of an individual rather than the residence address as prescribed by the documentation rules part 67.113(d)(1) and (2)?
  Answer - It is the agency's policy to have the physical address as well as the post office box.

- Question - By what means can a state check for current documentation on a vessel in the shortest amount of time?

  Answer - via the National Vessel Documentation Center
  2039 Stonewall Jackson Drive
  Falling Waters, WV 25419-9503
  Phone: 1-800-799-8362 or (304) 271-2400
  Fax: (304) 271-2405

Some questions remain unanswered, and the committee agreed to invite the program manager from the National Vessel Documentation Center to the spring meeting to answer questions and review vessel documentation procedures.

The Lacey Act

Karen Raine, NOAA General Counsel, provided input regarding states' authority involving Lacey Act cases. She outlined criteria for prosecution including the requirement that a state attorney must document violation of state law before a federal case can be pursued. She cautioned that the Lacey Act should be used for substantial cases.

State Reports

Jerry Waller opened the floor to general discussion on state activities. Terry Bakker noted that Mississippi had recently banned commercial activity north of the CSX railroad bridge. Further, Mississippi has banned recreational crab fishing north of the CSX railroad bridge. Bill Robinson provided a report of Texas activities to each committee member.

NMFS Report

Suzanne Horn reported that the headquarter's office may soon fill the office director's vacancy. A vacancy announcement has been released and interviews are underway. Due to downsizing, the NOAA General Counsel office may experience cuts. She expressed her concern and feels NOAA General Counsel doesn't have

enough lawyers as it stands now. As agreed at their state/federal meeting, another meeting will be held during the spring.

USCG Report

Mark Johnson reported that the Commandant's streamlining has been approved by the President and Congress. Through this effort, the USCG 8th District and St. Louis District will merge to the New Orleans' office. This change will go into effect between now and October 1996.

1995 Law Summary

After extensive changes, the 1995 Law Summary is being printed and distributed to the states, the NMFS, the USCG, NOAA General Counsel, and others.

Interactive Risk Communication Workshop

Jerry Waller and Bill Robinson attended this workshop which advised participants including those from the FDA, the NMFS, and health departments how to interact with the press and public in a proactive manner in regard to shellfish health risks. The LEC agreed a similar workshop would be a good general session topic for the GSMFC.

Proceedings of Data Confidentiality Workshop

Ron Lukens provided background information and a review of discussion from the workshop. This workshop focused on the legal aspects of data confidentiality. The committee noted the need for a similar workshop focusing on the enforcement aspects of confidential data. Lukens noted that it was generally agreed by participants at the workshop that law enforcement agents can and should use data, including those that are confidential, to develop a case.

Other Business

Jerry Waller noted the similarities of issues being worked on by the ASMFC's Law Enforcement Committee. The LEC agreed to request a joint GSMFC/ASMFC Law Enforcement Committees' meeting.

The LEC agreed to request a letter of appreciation be sent to Carl Covert of TPWD, who recently retired and had worked extensively over the years with the LEC and Commission on enforcement issues. Bill Robinson agreed to provide the GSMFC staff with a personal address.

Larry Matherne reported that Tommy Candies, Louisiana's representative on the Law Enforcement Committee, will retire on December 29, 1995. The LEC agreed to request a letter of appreciation be sent at that time.

Election of Chairman

Terry Bakker nominated Jerry Waller as chairman, and Suzanne Horn seconded the motion. Jerry Waller was elected chairman by unanimous acclamation.

There being no further business, the meeting adjourned at 11:55 am.

APPROVED BY:

TECHNICAL COORDINATING COMMITTEE
MINUTES
Wednesday, October 25, 1995
Mobile, Alabama

Chairman Corky Perret called the meeting to order at 9:05 a.m. The following members and others were present:

Members

Terry Cody (proxy for H. Osburn), TPWD, Rockport, TX
Ed Conklin (proxy for A. Huff), FDEP, Tallahassee, FL
Doug Frugé (proxy for N. Clough), USFWS, Ocean Springs, MS
Paul Hammerschmidt (proxy for G. McCarty), TPWD, Austin, TX
Scott Nichols (proxy for B. Brown), NMFS, Pascagoula, MS
Corky Perret, LDWF, Baton Rouge, LA
John Roussel, LDWF, Baton Rouge, LA
Walter Tatum, ADCNR, Gulf Shores, AL
Tom Van Devender, MDMR, Biloxi, MS
Richard Waller, GCRL, Ocean Springs, MS

Staff

Larry Simpson, Executive Director
Ron Lukens, Assistant Director
David Donaldson, SEAMAP Coordinator
Rick Leard, IJF Coordinator

Others

Frank Cianciotto, Kaman, Tucson, AZ
Jim Hanifen, LDWF, Baton Rouge, LA
Bill Hogarth, NMFS, Sliver Spring, MD
Bezhad Mahmoudi, FDEP, St. Petersburg, FL
Joe O'Hop, FDEP, St. Petersburg, FL
Tom Serota, FWS, Corpus Christi, TX
Joe Smith, NMFS, Beaufort, NC
Glade Wood, MDMR, Biloxi, MS

Adoption of Agenda

The agenda was modified with the movement of Consideration for Use of Bioremediation for Cleaning Up Oil Spills and Data Management Subcommittee Report after the State/Federal Reports. The amended agenda was approved.

Approval of Minutes

The minutes for the meeting held on March 16, 1995 in Orlanda, Florida were approved as written.

State/Federal Reports

Alabama

W. Tatum stated that in response to the net ban in Florida, Alabama passed a gill net limited entry program. To qualify for a netting license, it requires that a fisherman have a licensing history for two years during the period of January 1, 1989 to December 31, 1993 and during those two years, at least 50% of his/her income came from commercial fishing. Due to these requirement, the number of netters will be reduced from 638 to approximately 200 fishermen. An executive order has also been enacted which establishes a panel to review hardship cases. The crab industry has established panel to develop recommendations to help ease some of the use conflicts. The preliminary recommendations suggest that some type of limited entry program be used to help alleviate problems. The Alabama Marine Resources Division (MRD) in conjunction with Auburn University is studying different methods for growing shrimp and finfish in ponds for increased productivity. The MRD has finished their hook and release mortality study and the results should be published within the next several months. The damage from the hurricanes was very minimal. The only reported problem was that some of the smaller objects in the general permit area moved slightly. The project of mapping of oyster reefs has been published and Alabama has gained approximately 1,000 acres of public oyster bottom since 1968.

Mississippi

T. Van Devender stated that the Mississippi Department of Marine Resources (DMR) has been existence for just over a year. The issue of gill nets was addressed by the Mississippi Department of Marine Resources Commission (DMRC) and the DMRC did not ban gill nets but did pass more stringent regulations concerning their use. However, some people were not pleased with this action and this issue will probably be address by the legislature in January 1996. The National Park Service (NPS) has enacted a regulation that bans all commercial trawling in the Gulf National Seashore. In addition, the DMRC passed a regulation that banned recreational trawling this area as well. As a result, the DMR in conjunction with the GCRL, are studying the effects of trawling on sea grass beds. The DMRC has banned all commercial activity in bays north of the railroad. The summer brown shrimp landings are about average and the oyster season opened October 1 and expected a good year. The commercial red drum season opened October 1 and the quota of 35,000 pounds has been reached early and early each subsequent year. The presence of red tide was found in Mississippi waters from mid- August to early September. Approximately 2/3 of Mississippi Sound was affected but there was no associated fish kills or low oxygen areas. At GCRL, work is continuing on cobia tagging and red drum larval back calculation studies. The DMRC is in the process of delimiting and describing skimmer trawls and determining what sizes will be allowed in Mississippi waters. Work on replenishment of low profile fishing reefs has been completed. DMR in conjunction with LDWF and the Corps of Engineers is still examining the Bonne Carré project.

Louisiana

J. Roussel stated that there was a special three-day white shrimp season in Calciseau Lake in early spring to harvest large overwintering shrimp. The inshore season was opened be zones this year and overall production was above average but it varied among area. The fall inshore season opened in late August and production has been higher than in recent years. The Louisiana Department of Wildlife and Fisheries (LDWF) completed the last shell plant on the Sister Lake oyster seed reservation project. The LDWF has conducted a series of meeting with oyster lease holders to discuss conflicts between lease holders and coastal restoration project personnel. The oyster season opened in September and production is well above average. LDWF has added four new oil and gas structure to their artificial reef program as well as approximately forty military vehicles. The LDWF finalized plans to convert the sulfur rigs into a large artificial reef. Instead of blowing up the rig, the rig will be cut and placed on the bottom. The Louisiana legislature passed approximately 20 laws that affected the marine area. The major law passed regulated that gill net activities in Louisiana. It was a very complex bill and there were a variety of issued addressed.

Florida

E. Conklin stated that Florida is still in the process of implementing the net ban which to effect in July 1995. Due to the language in the amendment, some of the inshore fishermen were able to construct nets larger than were allowed before the amendment was passed. Also, there are some exemption for governmental and scientific purposes. However, the industry has interpreted this language to mean that a governmental unit could undertake a commercial activity where the unit hired commercial fishermen to work for them. This issue is being addressed in the court system. There was a net buy out system established to purchase gear from fishermen displaced by the ban. The buy out has been completed. The amount of money received by a fisherman was based on the type and size of the net. Therefore, many fishermen modified their nets which enable them to receive a larger amount of money. There is an increase in the amount of innovative gears in Florida which will allow them to continue to fish for mullet under the amendment. Another result of the ban is that there is an increase in the amount of aquaculture activity in Florida. The hurricanes which hit Florida caused a lot of damage, mainly to the beach dune system and private property, however, there was no apparent damage to the fisheries resources. Because of the changes in fishing due to the net ban, the Florida Marine Fisheries Commission asked the American Fisheries Society to conduct a review of the research and management activities of the FDEP. The initial report has been completed and available.

Texas

P. Hammerschimdt updated the TCC concerning the status of the shrimp virus in south Texas. In May 1995, there was an outbreak of this virus which caused greater than 90% mortality in several mariculture facilities in south Texas. It was not known how the virus got into the area since all larvae which entered Texas had be classified as disease free. There is some speculation that the virus was airborne and this is how it entered the facilities. The virus caused high mortality on pond-reared shrimp, however, the TPWD was concerned about the effects on native species of the region. Bioassays were run on such species as grass shrimp, blue crab, red drum, spotted sea trout, and brown and pink shrimp. The results showed there was no impact on non-penaeus species of shrimp and finfish, however, there was a 50% mortality on PL 10 white shrimp. Due of the potential damage that could be caused by the virus, the mariculture companies were asked to voluntarily quarantine their facilities. The companies agreed not to discharge water from any of their facilities until September 1, 1995. By this date, most of the shrimp would be past the PL 10 stage. Several studies have been and are currently being conducted to examine if there was any residual contamination in the ponds. Initial results have found there that has been no signs of the virus. Last year, the state implemented a limited entry program for the bay shrimping. The TPWD is currently involved in the review and appeals process concerning this program. Phase one of the coastal hatchery has been completed. Phase two has gone out for bids and the center should be fully operational by the summer 1996.

National Marine Fisheries Service

S. Nichols stated that NMFS is under a continuing resolution which has restricted travel by NMFS employees as well as other areas affecting the budget. The NMFS budget is still be addressed by Congress and the initial results appear favorable for the agency. Organizationally, the status of NMFS is still undetermined. Due to this reorganization, it is possible the research vessels will be discontinued and NMFS would have to charter vessels to conduct the surveys. Unfortunately, in the Southeast Region, there are not adequate vessels for charter to conduct the necessary work. This has serious implications for programs like SEAMAP and other NMFS surveys. Work is continuing on the development of bycatch reduction devices.

Fish & Wildlife Service

D. Frugé stated that Columbus Brown entered on duty in early June as the new Assistant Director for Fisheries in the Southeast Region. C. Brown was formerly Assistant Director for Federal Aid in FWS Washington, D.C. office. Interior Department appropriations for next fiscal year include a moratorium on any hatchery closures by the Fish and Wildlife Service for one year. However, if a state wishes to take over management of a hatchery proposed for closure, that can proceed. The Fisheries budget is about the same as last year. As part of the Fish and Wildlife Service's ecosystem approach to trust resource management, regions are re-aligning the responsibilities of assistant regional

directors on a geographic (or ecosystem) basis as opposed to the present program basis. Region 2 (Southwest) has already officially made the change. Conrad Fjetland is now the assistant regional director for Texas, and will be responsible for all field stations in the state, irrespective of program affiliation. Region 4 (Southeast) will move into this new arrangement more gradually over the next year, with full implementation expected in fall 1996. Many questions remain concerning the details of this major organizational change. On August 23 the Fish and Wildlife Service and National Marine Fisheries Service jointly issued a decision that it was "not prudent" to designate critical habitat for the Gulf sturgeon at this time. The decision was prompted by a lawsuit filed against the Fish and Wildlife Service for not designating critical habitat at the time the species was listed as threatened in 1991.

T. Serota presented information concerning the presence of brown mussels in Texas. Various invasions followed by colonization of marine habitats by nonindigenous aquatic Mollusc species has been well documented. There are currently at least 55 introduced species of mollusks in North America. Included are examples of exotic bivalves having destructive ecological impacts such as the European zebra mussel and Asiatic clams. The invasive edible brown mussel *Perna perna* was first detected in Texas waters on the jetties at Port Aransas in February 1990. Within four years the brown mussel has spread from Matagorda Peninsula, Texas to Playa Escondida, southern Veracruz, Mexico. The edible brown mussel is found in the Red Sea, off Madagascar, the east and west coasts of Africa, the Mediterranean Sea, off Brazil, Uruguay Venezuela, West Indies, and Straits of Magellan. *Perna perna* can attain lengths up to 170 mm long (90 mm average), with generally smooth exterior, purple nacreous interior, dark brown periostracum, and a straight ventral margin anchored with one or two teeth. *Perna perna* is a filter feeder that occupies the littoral and sublittoral zones. It attaches by means of byssal threads to a variety of substrates including rock concrete, steel, wood, shell, rope, and even compact mud and sand. *Perna perna* tolerates fairly large fluctuations in salinity, adapting well in ranges of 19-44 ppt. It also appears to be tolerant of lower temperatures. Predators of the brown mussel in Texas include the oyster drill, stone crab, and sheepshead. Potential predators could include the american oyster catcher, octopus, and various fishes such as black drum, cow-nose ray, pinfishes, and others. Because of limited predators and competitors for space, intraspecific competition is likely the primary population controlling factor. The brown mussel is similar in morphology and ecology to the zebra mussel and shares many characteristics with the zebra mussel that make it such a major macrofouling species. The objectives of the FWS activities include monitoring range expansion of brown mussel in Texas waters; determining impacts of brown mussel in Texas waters; evaluating potential impacts on FWS lands in the Gulf of Mexico; communicating with other agencies, universities, general public, etc. on status of brown mussel; coordinating with other agencies on work being conducted by Corpus Christi field office to avoid overlap and redundancy; and attempting to determine limiting factors of brown mussel. The brown mussel poses several threats such as replacing indigenous mollusks; fouling of coastal water intakes, control structures, etc, introducing potential disease, and ecosystem unbalance. To begin addresses some of the impacts, FWS will be studying the brown mussel. Artificial substrates will be placed in major Gulf of Mexico passes including; Santiago Pass, Port Mansfield cut, Land Cut, Aransas Pass, Cedar Bayou, Matagorda Bay, West Bay, and Galveston Bay. Specific sampling sites and frequency of artificial substrates implanted will be determined based on methodologies utilized in previous studies. Artificial substrates will consist of a stainless steel or fiberglass post with fiberglass or plexiglass disks attached along its length. The structure will be designed to remain upright in water column at all tidal stages yet be visible to boaters to prevent collisions. The posts will be anchored or driven into bottom substrate and have sufficient floatation attached to suspend structure. Substrate surfaces will be checked monthly with all attached mussels and other settling organisms being collected, preserved, identified, counted, and measured. An annual report of findings will be produced. Petroleum and natural gas production platforms and rigs in the near-shore Gulf of Mexico will be monitored for occurrence of brown mussels and any incidence will be mapped to determine range expansion. Access to rigs will be gained either by Service boat or helicopter. All rigs are already located on GIS maps and *Perna perna* expansion to these rigs could be accurately mapped and tracked. This monitoring project is envisioned as a three year study with on-going activity and funding considerations on an annual basis.

Status of Freshwater Introduction Projects

C. Perret stated that the Governors of Louisiana and Mississippi are supportive of the Bonne Carré project. In Louisiana, there are some legal questions and concerns regarding the project. The problem is that when an agency signs a document to receive federal funds, those funds are subject to their availability. The lawyers in Louisiana want that to

be contingent upon the availability of state funds as well. In addition, since the LDWF is the responsible agency, if the Louisiana legislature does not appropriate matching funds for the project, the Department does not have enough money to provide the matching funds.

Consideration for Use of Bioremediation for Cleaning Up Oil Spills

J. Hanifen stated that bioremediation is a counter measure for marine. It is simply man taking action to speed up a natural process and sometimes, taking action reduces the natural rate. Biodegradation is the natural process whereby bacteria or other microorganisms alter and break down organic molecules into other substances, such as fatty acids and carbon dioxide and bioremediation is the act of adding fertilizers or other materials to contaminated environments, such as oil spill sites, to accelerate the natural biodegradation process. There are several types of bioremediation actions for treating spilled oil in the natural environment such as addition of nutrients, addition of microbes, and addition of "other products" which enhance oil degradation. Bioremediation is classified by location or where the treatment is applied. It can be either in-vitro (completely controlled environment), ex-situ (excavated soil treated on-site) or in-situ which is on-site and in natural conditions. In-vitro bioremediation allows for almost complete environmental control while ex-situ allows for only limited environmental control. Bioremediation is useful with open water slicks, at sensitive locations where access is limited and mechanical clean up could cause more damage than the oil, and as a final or polishing treatment. Open water bioremediation was tested during the Mega Borg spill in Galveston. The product was applied to the oil slick and within 24 hours, the slick was gone, however, the disappearance of the oil slick is not a measure of efficacy. A key element to the marine and coastal environment is a community of microbial organisms that recycle waste. Oil is often viewed by this group as simply another source of food. The primary process of bioremediation is microbial respiration. In much the same way we digest food, bacteria degrade oil. Oil provides a source of nutrition to the bacteria. The metabolic products are energy, biochemicals needed for cell growth and maintenance, and carbon dioxide. The secondary process is anaerobic fermentation. The limiting factors to biodegradation are presence of oil degrading bacteria, oxygen, nutrients, temperature, initial oil toxicity, and oil concentration (threshold level). The oil itself can act as a limiting factor. In addition, the type of oil can be a limiting factor. Not all oils degrade at the same rate and high concentrations of oil can be toxic to microorganisms. Methods of bioremediation include nutrient addition such as nitrogen and phosphorus; nutrient formulations such as soluble inorganic nutrients although frequent reapplication is required for these compounds and slow release formulations however, these may be washed away by tides and storms; and oleophilic fertilizers. To measure the efficacy of these methods, it is necessary to use a monitoring program, and proper analytical methods, and results must show evidence of selective microbial degradation. In general, bacteria can degrade straightchain hydrocarbons, more easily than branched hydrocarbons. Evaporative weathering refers to lower molecular weight compounds evaporate leaving behind a more viscous oil. Biological degradation refers to selective compositional changes in alkane profile. The hopane series is highly resistive to microbial degradation and these compounds have been used as internal standards to prove efficacy of bioremediation. Analysis of a sample collected in a marsh 5 years after the Exxon Valdez spill suggests a highly degraded oil caused by selective biodegradation, but there is very little change in the aromatic hydrocarbons which are the toxic compounds of oil. Efficacy must show proof of aromatic hydrocarbon degradation. The proof of degrading the non-toxic portions of the oil is not proof of action. The efficacy of bioremediation has been tested in a variety of natural sites. At the Exxon Valdez spill site, bioremediation was examined. The treatment area were highly complex boulder/cobble beaches. Analytical results exhibited very high variance, but when the data was normalized, it appeared that the degradation rates were higher at the treated beaches. Another method of bioremediation is microbial addition. The aim is to enhance biodegradation by adding selected bacteria strains which are known to degrade oil. However, the added bacteria are often out-competed by the native bacteria, and most areas are not lacking native oil degrading bacteria. The method was tested during the Apex Barge spill in Galveston however, the results of the test were inconclusive. Currently, there are several research projects being conduct to investigate the potential of bioremediation as a clean-up tool. In addition, the EPA conducted a study using bioremediation on beaches. Chemistry results suggest that all treatments lost oil at the same rate. Oil loss is primarily due to physical oil transport, not bioremediation. Beaches may not are not good candidates for bioremediation. The conclusion is that bioremediation is promising but is not yet an off the shelf technique that can be applied to oiled shorelines with the expectation of success in every case.

Data Management Subcommittee Report

J. O'Hop reported that the Subcommittee met early this week and discussed various issues. Each state presented activities related to data management to the group. The status of the GIS Symposium was reviewed. The document should be printed and available by the middle of next year. The recommendations from the stock assessment team regarding the development of FMPs for several species were discussed. The Subcommittee agreed with the recommendations of summer flounder, sheepshead and croaker. The group decided that a workshop regarding electronic communications was not necessary at this time but rather to discuss the hardware and software needs among the agencies. The Subcommittee discussed the establishment of the Fisheries Information Network (FIN) via a memorandum of understanding (MOU) and recommends the development of this program. The FIN MOU incorporates the Recreational Fisheries Information Network (RecFIN) and the Commercial Fisheries Information Network (ComFIN) into one program although they are still distinctive programs. By combining the programs, it cuts down on the paperwork and allows for the signature of only one MOU. In addition, the Subcommittee has developed a strategy that would allow for the states in the Gulf of Mexico (except Texas) to actively conduct the Marine Recreational Fisheries Statistics Survey (MRFSS). The strategy would enter into cooperative agreements with NMFS which would allow the states to hire personnel and conduct the field intercept portion of the MRFSS. T. Van Devender stated that since these items concern more management than technical, it would be appropriate to defer action on these items and let the State/Federal Committee address them. Thus, **T. Van Devender moved that the TCC to defer action on the FIN MOU and proposed strategy for implementation of RecFIN in the Gulf of Mexico to the State/Federal Fisheries Management Committee. The motion was seconded and passed unanimously.** Skip Lazauski was reelected Chairman and Joe Shepard was reelected Vice Chairman.

Use of LIDAR for Assessment of Fisheries Resources

F. Cianciotto stated that LIDAR is very similar to sonar and radar in that they all send out a signal and they pick up return signal which give you an indication of what is out there. The principle is the same for LIDAR except that it uses light waves. These systems have been used to look at objects at the surface, subsurface and bottom of a water body. The LIDAR system has three major components: a laser, camera, and a range gating mechanism. Range gating allows the user to reduce the "snow" or interference from the environment. The laser is usually a blue or green light laser. Blue light laser is used primarily in deep ocean systems while the green light laser is used for shallower applications. The laser puts out a train of light waves which passed through a beam expander that increases the coverage of the signal to about 150 feet by 100 feet. The light beam passes through the water and reflects off objects in the water which are then recorded by the camera. The whole operation is timed so a user can control the depth and time frame to be examined. Several tests have been conducted using this technology such as the menhaden industry in Gulf of Mexico, with NOAA in southern California looking at tunas, and the sardines and mackerel industry in Chile. Currently, it is not possible to identify the species of fish from the return signal, however, work is being conducted which will hopefully allow for species identification.

Implications of Metric Conversion by the State of Alabama

L. Simpson stated that information concerning this topic has been distributed to the Committee. The state highway transportation departments are under a federally-mandated order to convert to the metric system. The State of Alabama decided that all state agencies will convert to the metric system. Therefore, the method of collecting and recording data could be affected and L. Simpson believed this might be of interest to the Committee. W. Tatum stated that this could have a great impact on the rules and regulations regarding the management of the marine resources.

Subcommittee Reports

Anadromous Fish

D. Frugé reported that GSMFC approved the joint Gulf Sturgeon recovery plan/FMP earlier this year. The FWS sent the completed plan to GSMFC for signature in September. The Plan was signed by the chairman and returned to the FWS. The Plan is now being printed for final distribution. The Louisiana representative indicated that harvest of Gulf race striped bass stocked over the past three years in Indian Creek Reservoir to establish a brood stock source is

relatively low. There is little directed effort by fishermen to catch striped bass in the lake. The state plans to begin gill netting this fall to evaluate survival and growth of striped bass stocked so far. Two lakes in Texas were stocked with Gulf race striped bass fingerlings this summer to establish alternative brood stock sources. This was the first time Texas received Gulf race fish. About 26,000 Phase I fingerlings were stocked in Twin Buttes Lake and 58,000 in Lake Waco. Equal numbers of Atlantic race fish were also stocked in the lakes to test relative growth and survival. The Gulf Coast Research Laboratory stocked about 37,000 Phase I Gulf and Atlantic race fingerlings in the Pascagoula and 35,000 in the Pearl rivers. They will soon be tagging and stocking about 20,000 Phase II finqerlinqs in the two rivers. The Florida Game and Freshwater Fish Commission reported they will be extending their Lake Talquin study on Gulf versus Atlantic race growth and survival one more year. They will soon be doing their fall sampling for that study, which may provide some conclusive results. Electrofishing sampling indicates very good Phase I stocking survival in Lake Seminole and the upper Apalachicola River. They attribute this to diminished hydrilla in the lake over the last year. They hope to stock about 50,000 Phase II Gulf race fingerlings in the lower Apalachicola River this winter. State and federal hatcheries stocked about 1.8 million Phase I Gulf race striped bass fingerlings in rivers and reservoirs in Florida, Georgia, Alabama, Mississippi, Louisiana and Texas this spring and early summer. The Commission has approval from the Fish and Wildlife Service to fund two projects under the Sport Fish Restoration Administrative Grants program. These will be a compilation of existing information on contaminants in the Pascagoula river and a nuclear DNA analysis of historical changes in genetic composition of the striped bass population in the Apalachicola-Chattahoochee-Flint (ACF) river system. The latter project will be a follow-up to a similar analysis using mitochondrial DNA that was recently completed. That study found no significant change in genotype frequencies following introduction of Atlantic race fish into the system during 1966-76. The Florida Game and Freshwater Fish Commission is in the process of reassessing its priorities versus available funding, and may have to significantly reduce the amount of effort currently being expended on Gulf striped bass restoration. The role of Florida in broodstock collection and in other efforts to restore striped bass in the Apalachicola, Yellow and Black rivers has been critical in maintaining the Gulf race of striped bass in the ACF system, as well as efforts to expand distribution of Gulf race fingerlings to other Gulf streams. Florida may have to curtail most of this work unless additional funding is obtained. If this work is curtailed there would be serious consequences, not only for the Commission's Gulf-wide restoration effort, but also for the future maintenance of the Gulf race in the ACF system. **D. Frugé moved on behalf of the Anadromous Fish Subcommittee have the Commission send a letter to the Fish and Wildlife Service alerting them to this situation, and encouraging them to do everything possible to assure that the critical work Florida has been doing in this regard is continued. After some discussion, the motion passed unanimously**. D. Frugé was re-elected Chairman and Charlie Mesing was re-elected Vice-Chairman.

Artificial Reef

W. Tatum reported that Subcommittee met twice since the last TCC meeting. The Subcommittee decided to cooperative with the ASMFC Artificial Reef Committee to conduct a review and revision of the National Artificial Reef Plan. A subgroup of these committees will devise a strategy for conducting a workshop to review and revise the plan. From the workshop, the group will develop recommendation concerning the revision of the plan and submit them to the NMFS. Prior to the Subcommittee meeting, members attended a symposium regarding the issues of attraction versus reduction of artificial reefs. The Subcommittee discussed the symposium at length. The group also discussed concerns over requirements for inspection of scrap vessels prior to sinking for artificial reefs and concluded that the ultimate responsibility and liability for the vessel lies with the permit holder. The issue raised by Bon Secour Seafood was discussed. John Ray Nelson contact the Alabama Marine Resources Division (MRD) as well as the Department of Conservation and Natural Resources expressing concern over his vessels picking up artificial reef materials outside of the general permit area. The problem was that a shrimping vessel picked up a skiff that had be permitted as an artificial reef. However, as the skiff was being deployed, it tipped and lost the stabilizing material that is required by the MRD. Therefore, the skiff drifted out the permit area. Since all reef materials are required to have identification of ownership, the owner of the skiff was contacted and moved the material back to the appropriate area and made restitution to the shrimper. In addition, it is now required that poured concrete be used for all skiffs or small boats as stabilizing material. As a result, the outcome of this event turned out to be very positive. The Subcommittee is working on a document that will provide guidance to state programs and other interested parties regarding the use of materials of opportunity. The document should be completed by the end of this year or early next year. The group decided to rework the Gulf artificial

reef data base which as originally housed at the Sport Fishing Institute Artificial Reef Development Center. The Subcommittee has been reviewing the data elements of the data base and work will continue through next year. The Minerals Management Service (MMS) informed the Subcommittee that they may be able to conduct and artificial reef economic impact study. **W. Tatum moved on behalf of the Subcommittee that the GSMFC draft a letter to the MMS that endorses conducting an economic impact study on fishing around artificial reefs in the Gulf of Mexico. The motion passed unanimously.** J. Roussel stated that due to the Shell Oil Company's attempt to dispose of the Brent Spar, an oil storage facility in 6,000 feet of water in the North Sea, there has been a public outcry to place a moratorium or total ban on offshore disposal of all oil and gas platforms. The International Maritime Organization has scheduled a convention in London during December 1995 and the issue of a moratorium or worldwide ban on the disposal of all oil and gas facilities in offshore waters will be discussed. The GSMFC has developed a resolution that requests that the U.S. State Department representative to the convention acknowledge that oil and gas platforms can serve a useful purpose in providing valuable fishery habitat as artificial reefs and seek an exemption for the use of oil and gas platforms as artificial reefs through formally established artificial reef programs. The Committee discussed the resolution and made some changes. **J. Roussel moved that the GSMFC to approve the revised artificial reef resolution and forward it to the appropriate personnel. The motion was seconded and passed unanimously.**

Crab

R. Leard reported for chairman Tom Wagner that each state presented activities related to crab resources in their area. It was noted that landings of blue crab appear to be down throughout the Gulf of Mexico. The Subcommittee also examined the data collection programs which occur in the Gulf. During these discussion, the group began reviewing the Blue Crab Fishery Management Plan and noted several deficiencies within the FMP. Therefore, the Subcommittee decided that group should initiate a revision of the Blue Crab FMP to reflect some of the changes that have occurred since its publication. **R. Leard moved on behalf of the Subcommittee that the TCC endorse the recommendation that the Crab Subcommittee moves forward with the revision of the Blue Crab FMP. The motion passed unanimously**. Lastly, Vince Guillory was elected Chairman.

Habitat

D. Ruple reported that Subcommittee has be inactive for several years and met for the first time in September 1995. The Subcommittee is attempting to establish the goals and objectives of the group. The Subcommittee has identified three types of activities the group would like to pursue. The first activity is educational which would relate habitat degradation to the productive and quality of fisheries resources. The Subcommittee is currently seeking funding for this task and plan to develop posters, brochures, etc. related to habitat issues. Also, a workshop is being planned to address habitat issues by examining various wetlands regulatory processes. The next is funding for habitat activities. The Subcommittee is seeking alternative funds and private and corporate support for these tasks. The last task involves developing a Gulf States Habitat Protection and Enhancement Plan. The Subcommittee will met later this year and discuss various issues.

SEAMAP

W. Tatum reported that the Subcommittee has produced the SEAMAP Annual Report to the TCC and copies have been furnished to each member. The report outlines the activities of the past fiscal year and proposed activities for the upcoming year. The Subcommittee, in conjunction with the SEAMAP-South Atlantic and Caribbean have developed a new five-year Management Plan for the SEAMAP. The plan has been distributed to each member for their review. During the last SEAMAP meeting, the Subcommittee has made some editorial changes but nothing that changed the intent of the document. **W. Tatum moved on behalf of the Subcommittee that the TCC to accept the SEAMAP five-yr Management Plan and forward it to the GSMFC. The motion passed unanimously**. The SEAMAP Subcommittee sponsored a workshop concerning the variety of uses of fishery-independent data for management of fisheries resources. The proceedings from the workshop will be available early next year. W. Tatum was reelected Chairman and Richard Waller was reelected Vice Chairman.

Election of Officers

Corky Perret was reelected Chairman and Tom Van Devender was reappointed Vice Chairman.

There being no further business, the meeting was adjourned at 4:00 p.m.

Commercial Fisheries Advisory Committee
Meeting Summary
October 26, 1995

Moderator Chris Nelson called the meeting to order at 8:45 a.m. The following members and others were present:

Chris Nelson, Bon Secour, AL
George Sekul, Biloxi, MS
Jan Harper, Lake Jackson, TX
John McFadyen, Corps of Engineers, Mobile, AL
Buck Sutter, NMFS, St. Petersburg, FL
Dan Furlong, NMFS, St. Petersburg, FL
LCDR Mark Johnson, U.S. Coast Guard, New Orleans, LA
Ed Joyce, Tallahassee, FL
Frank Cianciotto, Kamen Aerospace Corporation
Jerry Waller, ADCNR, Dauphin Island, AL
Dave Donaldson, GSMFC, Ocean Springs, MS
John Roussel, LDWF, Baton Rouge, LA
Corky Perret, LDWF, Baton Rouge, LA
Paul Hammerschmidt, TPWD, Austin, TX

Only three members were present and it was decided not to follow the agenda exactly, due to the fact some speakers were not present.

Buck Sutter reported that $15 million had been made available for disaster assistance in the Gulf of Mexico under provisions of Section 308(d) of the Interjurisdictional Fisheries Act. He stated that the disaster declaration covered the period from August 1992 to present. He noted that under the current legislation compensation was only available to commercial fishermen and corporations at 75% of their uninsured losses not to exceed $100,000. He described various aspects of the program and noted that NMFS was currently working to develop a public notice addressing the gear compensation component. Other components will be addressed later and there is no time constraint on spending the funds.

Discussion of Artificial Reefs - Impacts to Shrimping

W. Tatum gave a presentation on Alabama's Artificial Reef Program. He showed the group a map of the general artificial reef permit areas. He said that they choose these particular areas because they were not of great importance to shrimpers. It is illegal for anyone to transport artificial reef materials on a vessel without a permit. With a few exceptions, the program is working well. He said that they are learning that some materials approved earlier in the program are not stable and have been removed from protocol. The GSMFC TCC Artificial Reef

Subcommittee will be publishing an "Evaluation of Artificial Reefs and Materials" in the next few months.

Chris Nelson thanked W. Tatum for the broad overview of the successful program. He said that it is important for industry and recreational people to establish dialogue with the enforcement agencies. If anyone suspects illegal dumping, they should report it to the Coast Guard or ADCNR. W. Tatum said that he can provide a listing of the people responsible for enforcement of artificial reef materials coast wide within the state of Alabama.

C. Nelson said that various fishing groups should be contacted with a resolution or letter to let the fishing community know to contact the proper enforcement agency if they suspect any illegal dumping. Illegal dumping can be very costly to shrimpers so they should work with enforcement agencies if they notice any illegal activities.

Review of "Net Ban" Legislation/Regulations in the Gulf States

C. Nelson said that there was nobody here to discuss this officially but basically, the Gulf Islands National Seashore has banned all commercial fishing around barrier islands. He said that this has been a long standing policy, but until recently it hasn't been enforced.

Discussion of LIDAR System

Frank Cianciotto, Kamen Aerospace Corporation, described their efforts to take technology from the Persian Gulf War and apply it to fisheries. He stated that they have worked on the West Coast of the United States, the Gulf of Mexico, and recently in waters off Chili. He discussed the LIDAR system and how it is used to detect surface and subsurface objects noting that it is similar to radar in that light (laser) is bounced off objects and the backscattering is translated into an image. He also showed a film of Kamen's work off Chili.

Discussion of TED Regulation Changes and Proposed Changes

Dan Furlong distributed a Federal Register notice (Attachment I) of proposed rulemaking and requests for comments that would identify special sea turtle management areas in the southeastern Atlantic and Gulf of Mexico and impose additional conservation measures to protect sea turtles in these areas. After discussion, D. Furlong said that compliance with TED regulations was good this past year and data indicated that sea turtle mortality was down.

C. Nelson asked D. Furlong if NMFS has a position on the turtle safe proposal that the environmental community is trying to pass. D. Furlong said the agency is neutral. C. Nelson said that in his opinion the environmental community, in pushing this turtle safe project, is saying they don't trust NMFS or the Coast Guard to enforce

TEDs. He said that the shrimp industry is trying to comply with the rules set forth by these agencies, and they shouldn't have to have their nets inspected by the environmental community to be able to put a "Turtle Safe" label on their products.

G. Sekul stated that many commercial fishermen resent the fact that skimmers, live bait boats, and chop sticks don't have to use TEDS. Skimmers are getting bigger, and they are used in both shallow and deep water. He also stated that the industry should push NMFS for an official position to the Turtle Safe proposal.

GPS VERSUS LORAN

C. Nelson said there was nobody here to discuss this issue officially but there is some information in the handouts. M. Johnson from the Coast Guard stated that the "1994 Federal Radionavigation Plan" can be downloaded and the number is (703) 313-5910 or the internet address is www.nabcen.uscg.mil. This is the latest official position of the coast guard on GPS .

There being no further business, the meeting adjourned at 11:10 a.m.

GSMFC ROUTING
C&P; CFAC, W. Swingle, AKemmerer; D. Fruge'

Comparing GPS with loran C

Neither system is without flaws, so having both on board makes a lot of sense.

By Capt. Bill Brogdon

The Global Positioning System (GPS) gives high-accuracy fixes worldwide, which is a big advantage if you fish in areas outside loran C coverage. Today GPS is available for fixes nearly all day, and the situation is getting better with every satellite launch. Clearly, as GPS approaches certification as an operational system in 1993, and as the price of receivers comes down, they will become even more common in the wheelhouse.

Loran C, by the way, should be around a long time. It has proven to be reliable, accurate and inexpensive. The 1990 Federal Radionavigation Plan states that it will be operated "into the next century," and it has a requirement of 10 to 15 years overlap before phasing out any navigation system. The Coast Guard has upgraded many of the transmitters and has installed new equipment allowing remote operation, which cuts operating costs. They have just installed two new chains to provide coverage for the central United States, primarily for aircraft use.

(The one exception to this is Hawaii. According to Capt. John Wiseman, chief of the Coast Guard's Radionavigation Division, the Coast Guard has announced that ...entral Pacific loran C chain will be ...own by Dec. 31, 1992. The Depart... ...t of Defense's need for the chain will end by then, and there was little public objection to the closure plans. According to one report, the chain could be closed as early as mid-summer.)

As you know from experience, loran C has occasional problems: interference from electrical or electronic equipment or from nature, receiver failures to lock on to the correct cycle, a transmitter malfunction or a timing error announced by "blink." Navigators know that a low signal to noise ratio (SNR) indicates strong interference or a weak signal.

For that matter, no system is immune to problems, and GPS has some, too. Now, with 16 satellites operating, you can get two-dimensional fixes for about 22 hours a day. More importantly, its worldwide coverage includes many areas outside of loran C coverage. When the full 21 satellite "constellation" is operational, the time gaps will cease and accuracy will improve. But even then, satellites will occasionally become unusable, and magnetic storms from sunspots affect reception.

GPS accuracy varies with time, and GPS receivers also fail. Furthermore, a satellite can be erroneous for 1/4 to 1-1/2 hours before being corrected; if you're using it for fixes, they'll be inaccurate. Fortunately, the things that affect one system seldom affect the other one at the same time (other than power problems aboard the boat).

GPS Accuracy

Both systems give high accuracy, and it is described in several ways. One is predictable accuracy: the ability to find a posi... ...n in reference to the latitude and ...tude of the boat's actual position, as ...n on a chart. Next is repeatable accuracy, or the ability to return to a spot that has been measured by the receiver.

Repeatable accuracy is the most accurate way to use a system, and is the basis of the waypoint system of loran C. When you return to a spot where the time delay (TD) numbers are the same as they were when you saved the waypoint, you are using the repeatable accuracy of the system.

GPS accuracy is excellent, but its description can be somewhat confusing. The Department of Defense (DOD) states that GPS can give repeatable accuracy as good as 18 meters (20 yards) worldwide but is concerned that this is "too good" for possible enemy use. Thus the department has degraded the accuracy to give fixes within 100 meters (110 yards) 95% of the time and within 300 meters 99% of the time.

This less accurate mode of operation has three names: "C/A code," "SPS," and "Selective Availability" (S/A). It is the accuracy that will be available to most users. The higher accuracy is designed for DOD and for other qualified users authorized to have cryptographic equipment. It is called "P-code" or "PPS."

This high accuracy was available during GPS testing and evaluation, but Selective Availability was turned on as operational satellites were launched. S/A was turned off during Desert Storm because the military was using many civilian-model GPS receivers. Since the first of July, it has been on and off periodically.

GPS doesn't show time delay readings; it shows latitude and longitude. Since the positions are found from a constantly moving group of satellites, there are no repeatable time readings. Its accuracy also varies with time even though you stay in one location. You may get a highly accurate fix in the morning at your pier and a less accurate one in the afternoon. This is due to changing satellite positions.

Now it is even more noticeable due to S/A being turned on and off. The receiver displays an accuracy indication number called PDOP or HDOP, which depends on the bearing and angle above the horizon of the satellites in view. The lower the number, the better — like golf. Measuring waypoints is best at low numbers: PDOP less than six or HDOP less than five. As more satellites come into service, users will find that PDOP and HDOP numbers around two or three become commonplace.

GPS also can determine altitude, but this is not particularly enlightening aboard a boat. You will get more accurate fixes, for more of the time, if you operate a GPS receiver in two-dimensional and enter the height of the antenna above the water as the altitude. Be careful, the receiver might expect meters rather than feet.

Loran C Accuracy

For loran C, your position within the coverage area affects the accuracy. In some places, the TD lines are close together and cross at nearly right angles. Accuracy is then high. When the lines of position cross at shallow angles, or are widely spread, or both, as in the Florida Keys, accuracy suffers.

The Coast Guard's long-term monitoring Signal Stability Study revealed that repeatable accuracy is better than 80 meters (88 yards.), 95% of the time, in 91% of the East and Gulf coastal areas. Repeatable accuracy

is better than 40 meters (44 yards), 95% of the time, over 48% of the same area, and in some places it is better than 20 meters (22 yards). On the West Coast, it's not as good, due to the convex coastline, but is better than 100 meters (110 yards) in much of the [illegible]al zone.

[illegible]any location, the TD readings repre[illegible]lines of position that stay very close to the same place. A 43 line in eastern Long Island Sound, for example, runs very nearly east and west, magnetic. A 14 line runs nearly north and south, and a 26 line runs 025/205 magnetic. This is always true in this area, as is the distance you must travel at 90° to a line to change the reading by 1 microsecond. This gives a "grid" as well as TD readings that remain very nearly the same at each waypoint.

Predictable Accuracy

Predictable accuracy is always less than repeatable accuracy, for any system. It comes into use when you must measure a position from a chart or plot your position on a chart. In loran C, correction factors for slight variations in the speed of signals through the atmosphere are inexact, and manufacturers apply "ASF" corrections to the calculated latitude and longitude to make them agree with charted values.

But because the corrections vary over the coverage area, it hasn't been practical to apply exact corrections at every point. Today, predictable accuracy has improved, due to efforts of the Coast Guard, National Ocean Survey and receiver manufacturers to measure and correct these errors. Even so, the latitude and longitude shown by a receiver can vary from that of an accurate position on the chart by several hundred yards.

In my experience along the East Coast, GPS predictable accuracy is better than loran C's. The latitude and longitude that it determines agrees much more closely with charted positions. But in Alaska, Hawaii, and many other areas of the world, it doesn't agree as well with the charts.

Chart Coordinates

The latitude and longitude grid on a chart is called its coordinate system. GPS and loran C both use the "WGS-84" coordinate system. This agrees very well with the latest Coast and Geodetic Survey and Canadian Hydrographic Service charts using the "NAD-83" coordinate system.

However, most of our charts were drawn using an older coordinate system, "NAD-27," which differs significantly from the new systems in southwestern Alaska and Hawaii. Be careful — sometimes a harbor chart is in one system and the coastal chart is in the other. The latitude and longitude of objects on the chart is different in the different systems.

In other parts of the world, the local coordinate systems often disagree with the WGS-84 by hundreds of yards. Although GPS receivers can convert from one system to another, errors persist. The important point is this: GPS is quite accurate, but there are errors in surveying and in coordinate systems that may be as much as 0.25 miles.

The best news is that GPS waypoints in any one coordinate system, such as the factory setting, WGS-84 agree beautifully with each other. If you measure a waypoint using GPS, and the PDOP or HDOP is low, you can return to it with high accuracy. It's the same method we've used with loran C for years: Save a measured waypoint and then return to it. If you or someone else measures latitude and longitude of an offshore wreck or a hang using GPS, the position is valid for any other GPS receiver using the same coordinate system. It's just as useful as loran C TD readings.

However, you have to go to each familiar waypoint, using loran C, and save a GPS waypoint while you're there. Be sure that the loran C is locked on to the correct signals, which have a high SNR, by checking the "Status" or alarm indicators. Also check that the GPS indications of accuracy — PDOP or HDOP — are low. GPS indicates latitude and longitude to 0.01° or 0.001° (0.01° of latitude is about 20 yards). Many GPS receivers (and a few loran C receivers) can measure an average position, if you remain exactly in the same spot for several minutes. The average is more accurate than a single measurement.

Using Both Together

If you use both systems, you can check one against the other. I doubt if anyone is going to throw away a perfectly good loran C receiver just because he gets GPS; he will

Converting waypoints from loran C to GPS

Both GPS and loran C give continuous information, store waypoints, provide course and speed information, and more. Although neither loran C nor GPS is perfect, using both systems together is better than either one alone. As we install GPS receivers, we will have to measure those carefully hoarded loran C waypoints with GPS to preserve their accuracy in the new system.

Here is a new way of converting loran C waypoints to GPS that has shown good accuracy in our tests. GPS waypoints are in latitude and longitude. Loran C waypoints are TDs readings; their calculated latitude and longitude differs from the correct values by up to a few hundred yards.

Suppose you have good, measured loran C waypoints and want to enter them in a GPS receiver. Going to each loran C waypoint and storing the measured position using the GPS receiver is excellent, but time-consuming.

Try this: At a convenient position, clear of obstructions and preferably with the boat stopped, be sure that the numbers aren't "jumping around." Check that the loran C is locked on the usual TDs, that the "SNR" is high, and that the GPS has low "PDOP" and high signal strength. Save both a loran C and a GPS waypoint. Shift the loran C receiver to indicate latitude and longitude, and compare them with the GPS position at the "common waypoint."

This is sample data at the end of our pier:

GPS	N 34-42.040	W 76-59.172
Loran C	N 34-41.97	W 76-59.13
difference	.07	.042

With these two receivers, in this area, adding these differences to loran C waypoints gives the latitude and longitude to be entered into the GPS receiver. It has shown high accuracy.

There are some cautions. First, use your own receivers, or the same brand and model. Two other receivers at the same spot gave corrections of +0.23 minutes of latitude and +0.16 of longitude. Second, the corrections are valid over relatively short distances, say within 50 miles. Due to the way that most loran C receivers apply "ASF" corrections, they will be most accurate within the 1° square containing the common waypoint. Third, when you do go to each waypoint, save it in the GPS receiver. That is the most accurate GPS data.

Some GPS receivers allow you to enter a waypoint as a range and bearing from a known position. You could use the loran C receiver to find range and bearing from the common waypoint to other waypoints, for entry as GPS waypoints. This isn't such a good idea; the bearings are only accurate to 1°. At 10 miles, there will be an error of about 350 yards. It's more accurate to use corrections to loran C latitude and longitude to establish GPS waypoints.

Some GPS receivers can calculate loran C TD numbers from the GPS latitude and longitude. You can also enter a waypoint in loran C TDs. I'm now testing a unit with this feature, which is being added to many new receivers. However, it has the same minor inaccuracies that cause the latitude and longitude calculated by a loran C receiver to differ from the charted values. For finding an entrance buoy in clear weather, it should be fine, but for finding an underwater reef, use the latitude and longitude correction method.

Don't confuse these GPS receivers with those that *measure* loran C TDs with an internal loran receiver. Some companies offer units that have, or can add, both loran and GPS receivers. They give TDs as accurate as any stand-alone loran C receiver.

— B.B.

use them both. I would save identical waypoints with both systems. If both show nearly the same distance and bearing to a waypoint marking a string of pots, you can be sure that the information is correct.

Another advantage occurs at those times either loran C or GPS is unusable. ..her system is not affected and contin- ..o give good information. If you're hunting for an offshore waypoint or one in fog, that could save hours of waiting for one system to get better.

I believe that many improvements will be made to both systems. Each one has improved constantly, and there's no reason to believe that progress will stop. Some of the biggest improvements lie in the way receivers work, their costs, and how easy it is to use them. Most GPS and some loran C receivers now allow you to name waypoints, which can be less confusing than the traditional waypoint numbers.

Some manufacturers have advanced and relatively inexpensive GPS receiver modules that other electronics companies can use as the "guts" of GPS receivers. And, the Coast Guard has tested a "real-time differential" GPS system that broadcasts corrections to a boat's receiver, giving greatly increased accuracy. This gives accuracy within about +/-10 meters, but the system is more complex.

Best of all, the systems complement one another. Loran C will be around for a long time and GPS far into the future. □

Bill Brogdan is a retired Coast Guard captain living in North Carolina. Ed.

GPS points to new era in enforcement

Not many fishermen are doing it yet, but Robert Britto II recently used his GPS navigational equipment to beat the rap when the U.S. Coast Guard mistakenly charged him with fishing in illegal waters.

Britto's success in the case illustrates how this space-age navigation gear is bringing new standards of precision to fisheries management and enforcement — and points toward a future in which authorities probably will employ GPS technology for remote surveillance of entire fishing fleets.

Britto, a New Bedford, Mass.-based scalloper, proved his innocence by citing information stored in his GPS. He was able to show that he was fishing 0.64 miles west of the Canadian boundary on Georges Bank when he was apprehended by the Coast Guard just before this past Christmas. A Coast Guard officer relying on far less precise loran C readings had spotted Britto's vessel and accused him of working 1.5 miles across the line.

As a precaution against such charges, Britto had punched in his position on the GPS when he overheard radio talk among nearby fishermen who saw the Coast Guard boat approaching. "I knew there was not a chance that I was over the line," Britto says. "They were off by more than 2 miles."

Britto says he was uneasy going up against a spit-and-polish Coast Guard officer, but he wasn't willing to take steep fines he didn't deserve. He hired a lawyer and got the manufacturer of his GPS, the Denmark-based Shipmate company, to provide evidence that he could not have tampered with the data recording his position. It was an open-and-shut case. "They dropped it rather quickly," Britto recalls. "We never went to court."

Still, Britto no longer drags anywhere near the boundary. "I don't need the aggravation," he says. "As precise as you are, you always have somebody who thinks you're closer than you should be."

The prospect of using GPS to establish whether fishermen are within legal waters sounds like a technological boon to many fisheries managers, especially for remote and vast regions such as the North Pacific high seas. That's where the international agreements regulating Asia's high-seas squid driftnet fleets already require those vessels to carry GPS equipment. Authorities can monitor the vessels' position relative to fishing boundaries that would otherwise be all but impossible to enforce.

Management authorities throughout the Western and South Pacific are eagerly contemplating the possibilities for similar surveillance in other fisheries. The Hawaii-based Western Pacific Fisheries Management Council has been exploring the technical options.

One obstacle that must be overcome is data security. Who is to keep the guy at the central monitoring screen from selling the information he gleans about exactly where the highliners are fishing? Bob Harmon, a staffer at the Western Pacific council, says one possibility is to set up the surveillance system so that boats only appear on the central screen when they cross over into illegal waters. Those fishing legally would retain their anonymity.

"The industry is skeptical about it, but most of the ones that have thought about it carefully [want to] see that it's something they get and the bad guys don't," Harmon said.

— **Brad Warren**

APPROVED BY:

COMMITTEE CHAIRMAN

STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE
MINUTES
October 26, 1995
Mobile, AL

Chairman Larry Simpson called the meeting to order at 9:10 a.m. and reviewed the membership. A quorum was noted, and the following persons were in attendance.

Members

Vernon Minton, ADCNR, MRD, Gulf Shores, AL
Gene McCarty, TPWD, Austin, TX
Glade Woods, MDMR, Biloxi, MS
Corky Perret, LDWF, Baton Rouge, LA
Ed Conklin, FDEP, Tallahassee, FL
Columbus Brown, USFWS, Atlanta, GA
Larry Simpson, GSMFC, Ocean Springs, MS (nonvoting)

Staff

Ron Lukens, GSMFC, Ocean Springs, MS
Rick Leard, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Others

Buck Sutter, NMFS, St. Petersburg, FL
Bill Hogarth, NMFS, Silver Springs, MD
Tom Van Devender, MDMR, Biloxi, MS
James Warren, GCRL, Ocean Springs, MS
John Roussel, LDWF, Baton Rouge, LA
Doug Frugé, USFWS, Ocean Springs, MS

Adoption of Agenda

The agenda was approved without objection after adding reports on the status of disaster funding and plans for a state directors' retreat in Corpus Christi, Texas.

Approval of Minutes

C. Perret moved and E. Conklin seconded that the minutes be approved as written. The motion carried unanimously.

Menhaden Advisory Committee Report

R. Leard reported that reduction fishery landings through September were 430,100 mt with a projection of 460,000 mt by the end of the season. He noted that this catch would be 39% below 1994 and 16% below the previous 5-year average. The reduction in catch was primarily attributed to poor weather that precluded fishing and possible hypoxic conditions off Louisiana. Six factories and 52 vessels participated in the 1995 season.

R. Leard noted that R. Condrey's bycatch data continued to overestimate the magnitude and underestimate the variance in bycatch because of a lack of statistical capabilities to fit data and analyses. He also stated that analyses are continuing and that researchers were working with industry on ways to reduce bycatch through modifications of large fish deflectors, hose cages, and other techniques.

R. Leard stated that the LIDAR demonstration project by Kamen Aerospace Corporation and FDEP had not been initiated, but the effort was planned and a report should be available in the Spring 1996. Mr. Frank Cianciotto from Kamen discussed his company's involvement with LIDAR technology.

The committee also discussed the Potential Biological Removal characterizations under the Marine Mammal Protection Act. They agreed to ask the NMFS to explain the criteria used and reasons for recent category changes for the industry on the Atlantic Coast. R. Leard also reported that J. Mambretti was elected chairman.

Status of IJF FMPs

R. Leard reported that the Striped Mullet FMP was nearing completion and that a final draft would be sent to the TCC immediately following final approval by the TTF which was expected at their November 3, 1995 meeting in Mobile, Alabama. Review by the S-FFMC would follow immediately, and the plan was expected to be published by the end of the year.

R. Leard stated that less effort had been expended on the Spotted Seatrout FMP because of the need to finish mullet; however, a partial draft of the biology, laws and regulations, and fishery description sections had been completed. He also noted that stock assessments for populations in each state were under way and should be completed by the end of the year. It was noted that because of personnel constraints, Texas was unable to perform their assessment and a $15,000 contract was awarded for the task. The committee requested that any future contracts for FMP work be approved by the S-FFMC prior to awards.

Determination of Next Species/Fishery for FMP Development/Revision

R. Leard reported that he had solicited input for the next FMP from the Stock Assessment Team (SAT), Data Management Subcommittee (DMS), and the Technical Coordinating Committee (TCC) as well as the individual states. He noted that the SAT and DMS had agreed that flounder should be the next species for IJF FMP development. He also stated that the Crab Subcommittee had requested that an update of the Blue Crab FMP be initiated, and the TCC concurred. Following discussion, C. Perret moved and V. Minton seconded that a revision of the Blue Crab FMP be initiated. The motion carried unanimously.

The committee discussed flounder, sheepshead, croaker, sand seatrout, and small coastal pelagics as candidates for the next new FMP. V. Minton moved and C. Perret seconded that an IJF FMP for flounder be initiated. The motion carried unanimously.

Status of Implementation of IJF FMPs

L. Simpson reviewed the status of implementation of recommendations by state and by individual IJF FMP. Various changes were noted as a result of recent changes to legislation and regulations and are incorporated in Attachment 1.

Update of State Regulations Matrix

In addressing consistency of regulations among states, the committee reviewed the regulations matrix by state and species. It was noted that various changes had occurred since the previous draft as a result of legislation and regulations. The committee agreed to send changes to staff for incorporation into the matrix.

Discussion of Recreational Fisheries Advisory Committee

R. Lukens reported that the major problem with getting participation from the recreational advisory committee was funding to attend meetings. He noted that staff had reviewed alternatives to get recreational input required by the commission's compact. He noted that the PSMFC has advisory panels in each state and staff members annually travel to each state to gain input to various issues. The ASMFC has species-specific advisory boards made up of commercial and recreational members of varying numbers depending on the species undergoing interstate planning, and they meet as needed. The ASMFC also pays travel for advisory board meetings. The chairmen of these advisory boards make up the ASMFC Advisory Committee, but it is relatively inactive.

Report on RecFIN and ComFIN

R. Lukens reported that the Memorandum of Understanding (MOU) for RecFIN had been combined into a joint RecFIN and ComFIN MOU. He presented it for approval and signature by the states once it is approved by the GSMFC. C. Perret moved and E. Conklin seconded that the revised MOU be approved, and the motion carried unanimously.

R. Lukens also presented a proposal to administer the intercept portion of the MRFSS program through the GSMFC and the individual states under the RecFIN program. He noted that this strategy would eliminate the private contractor currently being used and would likely improve the data with available funds. He outlined the management structure for the program and noted that the current strategy was to send a proposal to NMFS as soon as possible. If approved, 1996 would be a transition year wherein data, training, software, operations plans, etc. would be developed. The MRFSS program would be fully implemented under RecFIN in 1997. C. Perret moved and G. Woods seconded that the strategy be supported and a proposal sent to NMFS. In discussion, the committee expressed concern that future funding and personnel may not be available to adequately conduct the program and to improve the data that has been criticized in the past. Following discussion, the motion carried unanimously.

Status of Disaster Funds

B. Sutter reported that $15 million had been made available for disaster assistance in the Gulf of Mexico under provisions of Section 308(d) of the Interjurisdictional Fisheries Act. He stated that the disaster declaration covered the period from August 1992 to present. He noted that under the current legislation compensation was only available to commercial fishermen and corporations at 75% of their uninsured losses not to exceed $100,000. He described various aspects of the program and noted that NMFS was currently working to develop a public notice addressing the gear compensation component. Other components will be addressed later, and there is no time constraint on spending the funds.

State Directors' Meeting

L. Simpson stated that the next meeting was scheduled for December 5-6, 1995, in Corpus Christi, Texas. Meeting information and agendas will be sent in the near future.

Election of Chairman

V. Minton moved and C. Perret seconded that L. Simpson be elected as chairman. The motion carried unanimously.

There being no further business, the meeting was adjourned at 12:01 p.m.

GULF STATES MARINE FISHERIES COMMISSION
Interjurisdictional Fisheries Management Program

Implementation of IJF Fishery Management Plan
Recommendations by State

October 1995

Menhaden

Recommendations	FL	AL	MS	LA	TX
Establish uniform seasons (third Monday in April through November 1)	NI[1]	I	I	I	I
Industry provide data on fleet composition & Captain's Daily Fishing Reports	I	I	I	I	I

[1]bait fishery only, seasons not determined necessary

Key:

I = implemented
NI = not implemented
PA = partially implemented
PR = proposed

Spanish Mackerel

Recommendations	FL	AL	MS	LA	TX
Establish fishing year of April 1 - March 31	I	I	NI	I	NA[1]
Establish annual TAC consistent with annual stock assessments conducted by NMFS	I	I	NI	I	NA[1]
Prohibit use of purse seines	I	I	PA	I	I
Gill & trammel nets - mesh size of 3½" stretch or larger & maximum length of 1,800'	NA	PA	PA	I	NA
Achieve 50/50 balance of allocation between commercial and recreational fisheries	NA	NA	NA	NA	NA
Establish minimum size limit (recreational) of 12" fork length (14" total length)	I	NI	I[2]	I	I
Establish bag limits (recreational)	I	I	PR	I	I

[1]no commercial fishery
[2]14" fork length

Key:

I = implemented
NI = not implemented
PA = partially implemented
PR = proposed
NA = not applicable

Blue Crab

Recommendations	FL	AL	MS	LA	TX
Establish fees and permits to identify commercial and/or recreational effort	I	I	I	I	I
Establish minimum carapace width of 5" for hard blue crabs	I	I	I	I	I
Establish a trap identification system	I	PR	I	I	I
Mandate biodegradable escape panels	I	NI	NI	NI	NI

Key:

I = implemented
NI = not implemented
PA = partially implemented
PR = proposed

Oyster

Recommendations	FL	AL	MS	LA	TX
Increase cultch planting	PR	PA	PR	PR	PR
Develop uniform size limits on reefs that are continuous with two state's boundaries	I	I	I	I	I
Establish uniform criteria for opening and closing reefs in close proximity to state boundaries	NI	NI	PR	PR	NA[1]
Increase penalties for harvesting and possessing oysters from restricted or prohibited areas		I	I	I	I
Establish uniform gear on reefs that are harvestable by fishermen from two or more states	I w/AL	I w/FL I w/MS	I w/AL I w/LA	I w/MS NA[1] w/TX	NA w/LA

[1]such oyster reefs are permanently closed

Key:

I = implemented
NI = not implemented
PA = partially implemented
PR = proposed
NA = not applicable

Black Drum

Recommendations	FL	AL	MS	LA	TX
Consider minimum size restrictions	I	I	I	I	I
Consider bag/possession limits	I	I	I	I	I
Allow sale only by licensed commercial fishermen, dealers, & processors	I	I	I	I	I
Landing with heads, tails, & flesh naturally attached	I	NI	PA	I	I
Maintain equivalent of 20% SSB/R ratio	I	I	I	I	I

Key:

I = implemented
NI = not implemented
PA = partially implemented
PR = proposed
NA = not applicable

MINIMUM/MAXIMUM SIZE LIMITS, BAG/POSSESSION LIMITS AND QUOTAS
FOR SELECTED SPECIES BY STATE

*TAC = total annual catch
**FL = fork length, all others are total length (TL)
***Three if charter boat excluding captain and crew
****Primarily red, black, gag, yellowfin and nassau (+ yellowmouth and scamp in Florida)
⌂ = No maximum or minimum size limit in effect

		FL	AL	MS	LA	TX
Black Drum	Rec.	14"-24"+1, 5-5	None	None	16"-27"(+1) 5-5	14"-30", 5-10
	Comm.	14"-24" 500 lbs/day	None	None	16"-27" (+ permit)	14"-30"
Flounder	Rec.	11"-⌂	None	None	None	12"-⌂, 20-40
	Comm.	11"-⌂	None	None	None	12"-⌂
Mullet	Rec.	None, 50-50	None	None	No size limit 100 lb/vessel/day (3rd Mon in Oct-3rd Mon in Jan)	⌂-12" (Oct-Jan)
	Comm.	11"-⌂**	None	10"-⌂		⌂-12" (Oct-Jan)
Red Drum	Rec.	18"-27", 1-1	16"(+1)-26" (+2 & tags), 3-3	18"-30"(+1), 3-3, 130,000 lb TAC*	16"-27"(+1), 5-5	20"-28", 3-6
	Comm.	No fishery	No fishery	18"-⌂, 35,000 lb TAC	No fishery	No fishery
Sheepshead	Rec.	None	None	None	None	12"-⌂, 5-10
	Comm.	None	None	None	10"-⌂	12"-⌂

		FL	AL	MS	LA	TX
Spotted Seatrout	Rec.	14"-24"(+1), 10-10	14"(+2)-⌂, 10-10	14"-⌂, 10-10	12"-⌂, 25-25	15"-⌂, 10-20
	Comm.	14"-24", 940,000 lb quota sub-divided	No fishery	14"-⌂ 40,000 lb TAC	14"-⌂, 1.25 million lb TAC	No fishery
Cobia	Rec.	33"-⌂, 2-2**	37"-⌂, 2-2	33"-⌂, 2-2**	37"-⌂, 2-2	37"-⌂, 2-2
	Comm.	33"-⌂, 2-2**	37"-⌂, 2-2	No fishery	37"-⌂, 2-2	No fishery
King Mackerel	Rec.	12"-⌂, 2-2**	2-2***	2-2***	14"-⌂, 2-2	14"-⌂
	Comm.	12"-⌂**	None	None	14"-⌂	No fishery
Spanish Mackerel	Rec.	12"-⌂, 5-5**	10-10	14"-⌂**	14"-⌂, 10-10	14"-⌂, 3-3
	Comm.	12"-⌂**	None	None	14"-⌂	No fishery
Amberjack	Rec.	28"-⌂, 3-3**	28"-⌂, 3-3	None	28"-⌂, 3-3**	32"-⌂, 3-3
	Comm.	36"-⌂**	28"-⌂	None	36"-⌂**	32"-⌂, 3-3
Groupers	Rec.	20"-⌂, 5-5****	20"-⌂, 5-5	None	20"-⌂, 5-5	None
	Comm.	20"-⌂	20"-⌂	None	20"-⌂	None
Black Seabass	Rec.	8"-⌂	None	None	8"-⌂	None
	Comm.	8"-⌂	None	None	8"-⌂	None
Jewfish	Rec.	No fishery	No fishery	None	No fishery	No fishery
	Comm.	No fishery	No fishery	None	No fishery	No fishery
Red Snapper	Rec.	13"-⌂, 2-2	15"-⌂, 5-5	13"-⌂, 7-7	15"-⌂, 5-5	13"-⌂, 7-7
	Comm.	13"-⌂	14"-⌂	13"-⌂	14"-⌂	13"-⌂, 7-7

		FL	AL	MS	LA	TX
Gray Snapper	Rec.	10"-⌂, 5-5	12"-⌂, 10-10	None	12"-⌂	None
	Comm.	12"-⌂	12"-⌂	None	12"-⌂	None
Lane and Vermilion Snappers	Rec.	8"-⌂	8"-⌂	None	8"-⌂	8"-⌂
	Comm.	8"-⌂	8"-⌂	None	8"-⌂	8"-⌂
Striped Bass	Rec.	15"-⌂, 6-6	16"-⌂, 6-6	15"-⌂, 3-3	⌂-30"(+2), 5-10	18"-⌂, 5-15
	Comm.	No fishery	16"	No fishery	No fishery	No fishery
Pompano	Rec.	10"-⌂	12"-⌂	None	None	9"-⌂
	Comm.	10"-⌂	12"-⌂	None	None	9"-⌂

Walter A. Penry
3/21/96

COMMISSION BUSINESS MEETING
MINUTES
October 25, 1995
Mobile, Alabama

Chairman Ed Conklin called the meeting to order at 1:06 p.m. L. Simpson noted that a quorum was present. He reviewed pertinent rules and regulations regarding the appropriate meeting procedures. Voting is by individual Commissioners. If there is a questions about the vote, each state delegation shall cast one vote. If three Commissioners are present, two out of three will carry the State vote. If only two Commissioners are present from a state, they must agree or their vote will offset each other. If only one Commissioner from a state is present his vote shall represent the state.

It was noted that Walter Penry was the new Legislative Commissioner from Alabama. Mr. Penry had attended several committee meetings earlier in the week but was not able to attend this afternoons session. He planned on being present for the morning meeting if the Commission was still in session. It was noted that several vacancies existed. In Florida the Governor has not yet appointed a private citizen member to replace Hans Tanzler, and the Louisiana Legislative Commissioner, Frank Patti is not running for re-election.

Chairman Conklin recognized Bill Hogarth, NMFS and Columbus Brown, USFWS and welcomed them to the 46th Annual meeting of the Commission.

The following Commissioners and/or proxies were present:

Commissioners

Ed Conklin, FDEP, Tallahassee, FL
Vernon Minton, ADCNR/MRD, Gulf Shores, AL (proxy for James Martin)
Gene McCarty, TPWD, Austin, TX (proxy for Andrew Sansom)
Jan Harper, Lake Jackson, TX
Corky Perret, LDWF, Baton Rouge, LA
George Sekul, Biloxi, MS
E. Glade Woods, MDMR, Biloxi, MS

Staff

Larry Simpson, GSMFC, Ocean Springs, MS
Ron Lukens, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS
Richard Leard, GSMFC, Ocean Springs, MS
Nancy Marcellus, GSMFC, Ocean Springs, MS
Ginny Herring, GSMFC, Ocean Springs, MS
Cynthia Yocom, GSMFC, Ocean Springs, MS

Others

Dan Furlong, NMFS, St. Petersburg, FL
Columbus, Brown, USFWS, Atlanta, GA
Buck Sutter, NMFS, St. Petersburg, FL
Doug Fruge, USFWS, Ocean Springs, MS
Bill Hogarth, NMFS, Silver Spring, MD

Adoption of Agenda

The agenda was adopted as presented.

Approval of Minutes

The minutes of the April 24-25, 1995 meeting were approved with some editorial corrections provided by Dan Furlong, NMFS prior to the meeting. The corrections clarified reports presented by the NMFS/SERO and did not involve any major changes.

NMFS/Southeast Regional Office (SERO) Report

D. Furlong reported on behalf of the NMFS/SERO. He updated the Commissioners on the positions of the various Congressional Committees involved in reviewing H. R. 1756, the "Department of Commerce Dismantling Act". The House Committee on Governmental Reform and Oversight has recommended a 25% cut in NOAA for FY96, with 4 to 6 NMFS laboratories recommended for closure. The House Science Committee would create a new department, the U. S. Science & Technical Administration that would include NOAA, the National Institute of Standards & Technology and the Office of Space Commerce. They would recommend that Seafood Inspection Program be transferred to the Department of Agriculture and that the Marine Sanctuary Program be transferred to the Department of Interior. He reported that the House Resources Committee would create a National Marine Resources Administration that would replace NOAA and the NOAA fleet; it would not recommend transfer of Seafood Inspection to Agriculture. The House Transportation Committee would transfer most of NOAA to the Department of Interior, terminate the NOAA fleet and transfer Seafood Inspection to the Department of Agriculture. The House Commerce Committee feels that NOAA should be transfered intact to the Department of Agriculture but would recommend a 25% cut. He explained that the Senate Committees were also reviewing and making recommendation on the Senate version of the "Dismantling Act". These committees also have recommended what they feel is appropriate. He stated the Secretary of Commerce continues to support the agency as necessary in both Houses and he feels that the Department of Commerce will survive, especially in light of the appropriation side of the budget process. Funds are being appropriated to support DOC activities so it is the general feeling that the agency will survive. He reported that the position of the NMFS and NOAA is that they hope and expect the Department to survive and that they remain an important constituent within the Department.

D. Furlong reported on the status of FY96 appropriations. In the House a request was made and approved at $257 million, approximately $15 million below FY95 funding. The Senate has recommended $288.6 million, approximately $16 million more than FY95. These recommendations will go to conference the first of November. He anticipates a compromise which would put funding the same as FY95 although the funding dollars will be distributed differently than FY95 due to Congressional request, etc. They are currently operating under a continuing resolution until November 13, at which time they hope to have a final solution to FY96 appropriations.

D. Furlong reported that NMFS reviewed and considered GSMFC's proposed amendments to Section 306 of the Magnuson Act as it does all citizens positions and that these considerations were factors in NMFS recommendations to reauthorize the Act. He reported that the reauthorization was passed in the House by a vote of 388 to 37. The Senate will vote on reauthorization next month. He stated that he has spoken to the Office of General Counsel in regards to how reauthorization will affect the issue of the use of State regulations to implement FMPs. In the case of the Gulf Council extending the State of Florida's spiny lobster and stone crab FMP to the EEZ in adjacent waters off of Florida there were no problems. It is in the absence of fishery management in the EEZ that creates the problem. In that regard the NMFS position is that the States can regulate its citizen in the EEZ so long as the regulations do not conflict with an existing Federal statute. This would mean that if a State in its operation of fishery management has rules for a particular fishery, for which

there are no rules in the Federal waters, than it is up to the State to decide whether or not its citizens have to abide by the landing laws.

D. Furlong reported on the status of red snapper ITQ. He stated that on Friday, October 13, all five Gulf States agreed to develop complementary regulations consistent with the Councils proposed red snapper ITQ system, so that NMFS is now in the process of implementing an ITQ system for people involved in the taking of red snapper. C. Perret stated that the State of Louisiana agreed to attempt to develop consistent regulations. He reported that it may take a constitutional amendment to do so. G. McCarty stated that they would submit consistent regulations to their Commission but cannot guarantee approval due to unfavorable public support. All State Directors voted to approve the amendment to the red snapper FMP but cannot promise results that they do not have control over. D. Furlong stated if Louisiana and Texas do not cooperate in this effort a loop hole will exist and it will unfortunately impact the ITQ system. At present the ITQ system is implemented to gear up April 1, 1996. V. Minton questioned D. Furlong in regards to enforcement. Since enforcement is a major part of the success of the ITQ system and Federal enforcement personnel are currently being reduced, how will this impact the success of the ITQ system. Dan said that originally they were to hire 10 addition enforcement personnel to implement the ITQ system but he has heard that this number may be reduced.

C. Perret asked about the status of the red snapper closure. D. Furlong reported that in the absence of a legal mechanism, the fishery would not be reopened. C. Perret asked if the king mackerel fishery would be reopened in the Western Gulf. D. Furlong stated that NMFS did not consider this an emergency situation and would not reopen the fishery.

D. Furlong also welcomed Bill Hogarth from the Office of Intergovernmental and Recreational Fisheries and encouraged the Commission to seek his assistance as needed.

USFWS Region 4 Office Report

C. Brown thanked the Commission for the invitation and opportunity to report on the activities of the USFWS Region 4 Office. E. Conklin congratulated him on his new position and stated that he looked forward to working with C. Brown.

C. Brown reported that appropriations for fisheries is consistent with FY95, although Region 4 has experienced some serious funding shortfalls. Although the Department of Interior has provided a delay in the closure of any hatcheries for one year it continue to look to States to transfer management of a number hatcheries in an effort to keep them open and to cut the Departments expenses. A report on the status of the hatcheries is due out March1, he anticipates transfers to the States to begin within the next six months.

He reported that USFWS's approach to trust resource management will result in regions re-aligning the responsibilities of the assistant regional directors on a geographic basis. This change will give the assistant regional directors supervision over all field stations in a geographic area, irrespective of program affiliation. Region 4 will move into this approach gradually over the next year. It is hoped that this approach will be more cost effective.

C. Brown updated the Commission on the joint decision of FWS and NMFS regarding Gulf Sturgeon critical habitat. The decision issued that it was not prudent to designate critical habitat for the Gulf sturgeon. This was a result of a lawsuit filed against the FWS for not designating critical habitat at the time the species was listed as threatened in 1991.

Although not directly relevant to the Gulf, C. Brown reported on sea turtle conservation activities on the Florida East Coast. In June two citizens filed suit against Volusia County for failure to protect sea turtles from impacts of beach driving and artificial lights. Beach driving from one hour before sundown to one hour after

sunrise is currently in effect until November 1. The county has submitted an incidental take permit to FWS that addresses beach driving and lighting problems in accordance with the Endangered Species Act. Other activities involved a $15,000 civil penalty against a condominium in Melbourne Beach, Florida for turtle disorientation caused by lighting. V. Minton asked if FWS had any written procedures regarding disorientation of turtles due to lighting. He would like to receive and administrative procedures regarding this problem to provide guidance for problems that may occur in the Gulf Shores, Al area. C. Perret also requested that C. Brown or D. Fruge provide his office with this information.

R. Lukens asked about the status of the Gulf Sturgeon Recovery Plan. It has been signed by the Commission's Chairman and is awaiting signatures from the appropriate FWS and NMFS official. C. Brown will find out the status and report back to the Commission.

Technical Coordinating Committee (TCC) Report

C. Perret reported that the TCC met on Wednesday, October 25. TCC Subcommittee provided reports of their activities. Reports were received from the following subcommittees: Anadromous Fish; Artificial Reef; Crab; Data Management; Habitat; and, SEAMAP. Some action was required by the TCC on various subcommittee issues.

The SEAMAP Subcommittee presented a Five Year Management Plan. The TCC approved the Plan and on behalf of the SEAMAP Subcommittee, C. Perret **moved to accept the SEAMAP Five Year Management Plan.** V. Minton seconded. **The motion was approved.**

The Anadromous Fish Subcommittee expressed concern regarding Gulf striped bass stocking. The Florida Freshwater Game and Fish Commission may have to reduce their efforts. These efforts have been critical to the restoration of Gulf striped bass. The TCC shared their concerns. On behalf of the Subcommittee and the TCC, **C. Perret made the motion to have the GSMFC staff draft a letter to the FWS alerting the agency of the Florida Freshwater Game and Fish Commission's situation and encourage the FWS to support these activities.** G. Sekul seconded. **The motion was approved.** C. Brown stated that in todays budget climate Federal funds may not be available. C. Perret reported that the States are also experiencing budget restraints but feel that the importance of this issue requires some kind of action.

The Artificial Reef Subcommittee requested TCC support in seeking an economic study on fishing around artificial reefs in the Gulf of Mexico. On behalf of the Subcommittee, the TCC Chairman, **C. Perret motioned to have the GSMFC staff draft a letter to the Mineral Management Service that endorses conducting an economic impact study on fishing around artificial reefs in the Gulf of Mexico.** G. Sekul seconded. **The motion was approved.** Other actions of the Artificial Reef Subcommittee included a resolution to make the U. S. representative to the London Convention, to be held December 1995, aware of the usefulness of oil and gas structures. On behalf of the Subcommittee, **C. Perret motioned to request the Commission to approve the resolution (Attachment A).** V. Minton seconded. **The resolution was approved.**

C. Perret reported that the TCC approved the Crab Subcommittees recommendation to revise the Crab FMP. This revision will be formally presented during the State-Federal Fisheries Management Committee report.

Other actions of the TCC included the re-election of C. Perret as Chairman for 1996. As per TCC procedure, Chairman Perret appointed T. Van Devender as Vice Chairman.

Law Enforcement Committee (LEC) Report

V. Minton reported that the LEC met on Wednesday, October 25. Topics discussed included ISSC issues regarding a time/temperature matrix for the oyster fishery, concerns regarding USCG's vessel

documentation forms; discussion of the Interactive Risk Communication Workshop; and, the 1995 Law Summary. Inconsistent regulations among the Gulf States continues to be a concern. The LEC recommends that the Commissioners support adoption of Federal regulations on bag and size limits by all five Gulf States in the commercial and recreational red snapper fishery. Karen Raines, NOAA General Counsel, presented information regarding states' authority involving the Lacey Act. R. Lukens reported on the Data Confidentiality Workshop. This workshop focused on the legal aspects of data confidentiality. He reported that it was the consensus of all present at the workshop that law enforcement agents can and should use data, including confidential data, in the process of an ongoing investigation. C. Perret disagreed with this point. R. Lukens stated that law enforcement agents could not search data looking for a violation, but that during the course of investigation the use of confidential data was appropriate. In Florida it would require a court order.

V. Minton reported that J. Waller, Chairman of the LEC recommended that the GSMFC Staff look into the possibilities of the committee meeting jointly with the Atlantic States Marine Fisheries Commission (ASMFC) LEC. Both committees deal with similar issues and a joint meeting would benefit both groups. Other business included a request that GSMFC Staff write a letter on behalf of the LEC to Carl Covert, Texas Parks and Wildlife Department, to express the committee's appreciation of his efforts in law enforcement. Carl has recently retired from TPWD. It was noted that Tommy Candies, Louisiana Department of Wildlife and Fisheries will be retiring in December 1995. The LEC would like a letter of appreciation to be sent to Tommy upon his retirement. Both Carl and Tommy have served on the LEC for many years and there presence will be missed.

V. Minton reported that Jerry Waller was unanimously re-elected Chairman of the LEC. **V. Minton motioned to accept the report and recommendations.** C. Perret seconded. **The motion was approved.**

State-Federal Fisheries Management Committee (S-FFMC) Report

L. Simpson reported that the S-FFMC met on Thursday, October 26. The committee received a report from the Menhaden Advisory Committee (MAC). They reported that landings are down about 30 percent due in part from weather. The Commission is working with the Beaufort Laboratory in an effort to maintain menhaden port samplers. This arrangement is working well and the Commission intends to continue its support. The menhaden industry is completing a three year study of bycatch. R. Condrey, LSU, Center for Wetland resources is looking at data through the 1994 season. Due to variances in bycatch estimates the statistical representation is has been difficult to examine. They are looking a various methods to finalize the study. Other topics of interest discussed by the MAC was the possible applications available to the industry with the use of LIDAR technology. Jerry Mambretti, TPWD was elected Chairman of the MAC for the upcoming year.

L. Simpson reported that input from the Recreational Fisheries Advisory Committee in dealing with FMPs has been difficult to secure. This committee is not active and representation on various FMP Task Force has been scarce. The Commission staff continues to seek input from existing members, old committee members and persons expressing interest in recreational fisheries in an effort to secure input from the recreational sector.

The S-FFMB submitted for Commission approval "A Proposed Strategy for Incorporating the Marine Recreational Fisheries Statistic Survey (MRFSS) in the Implementation of RecFIN in the Gulf of Mexico". A copy of this strategy was distributed to Commissioners. This proposal provides a basis for integrating the existing MRFSS in the Gulf of Mexico with existing State monitoring programs to provide critically needed fisheries data to both State and Federal agencies. **C. Perret motioned to approve the document.** G. Wood seconded. **The motion was approved.** D. Furlong stated that his office would begin researching mechanisms to handle this type agreement. He recommends the use of cooperative agreements. L. Simpson stated that congressional mandates exist that would make sole source cooperative agreements possible with the Commission. D. Furlong will look into methods used on the West Coast so that the SERO will be ready to go when funding is available.

R. Leard reported on the status of the Interjurisdicational Fisheries Management Program (IJFMP). He reported that the mullet FMP is nearly complete. The Task Force will meet again on November 3. The FMP will then be sent to the TCC for approval. He hopes to have the FMP out to the Commission by early December for their approval. R. Leard stated that upon completion of the mullet FMP he will again step up work on the spotted seatrout FMP. Texas is doing the stock assessment data for spotted seatrout and it should be complete in December. He anticipates a final FMP by October 1996. The S-FFMB reviewed recommendations from the Crab Subcommittee and approved a revision to the Crab FMP. In addition, the S-FFMB selected flounder to be the next species addressed by the IJFMP.

R. Lukens reported that the original MOU that was signed by the State Directors was to implement RecFIN as a three-year pilot. The three-year period will expire as of December 1996. During this time period a commercial fisheries information network has been developed. Since these activities are not clearly covered under the original MOU it was decided to merge the two efforts and to have a new MOU that would include both RecFIN and ComFIN programs in the Southeast Region. The new MOU has not changed, just added language to include ComFIN. The new MOU has been provided to the State Directors. It was recommended by the S-FFMB that it be signed at this meeting. **G. Woods motioned to adopt the new MOU.** C. Perret seconded. **The motion was approved.**

L. Simpson reported that he was elected Chairman of the S-FFMB.

Commercial Fisheries Advisory (CFA) Committee Report

J. Harper reported that the CFA met earlier in the day. It was not a well attended meeting. He feels that unless there is a particularly relevant issue to be discussed this will continue to be the trend with the committee. The committee received an interesting report from B. Sutter, NMFS/SERO regarding availability of $15 million disaster assistance in the Gulf of Mexico under the provisions of Section 308(d) of the Interjurisdictional Fisheries Act. This compensation is only available to commercial fishermen and corporations at 75% of their uninsured losses not to exceed $100,000. Other topics discussed included a presentation by Frank Cianciotto, Kamen Aerospace Corporation regarding the LIDAR system and how it is used to detect surface and subsurface objects. A laser light is bounced off objects and the backscattering is translated into an image. This system was used during the Gulf war and now this technology can apply to fisheries. The CFA did not submit any items requiring Commission action.

State Directors' Reports

Texas - G. McCarty reported that Texas has passed and implemented legislation on limited entry for the inshore shrimp fishery. The TPWD has been busy putting administrative procedures into place to qualify individuals into the fishery. The legislation provides entry into the fishery for anyone who purchased a license prior to April 1, 1995. Individuals who did not have a license may request a hearing before an appeals court. To date the TPWD has processed 287 appeals with a 28% rejection rate. If rejected, a fishermen may go through the appeal process again. The total number of licenses granted to qualified individuals is approximately 1,700; more than 1994 and a little less than 1993.

TPWD experienced an across the board budget cut of 5%, that included a loss of 10 fulltime employees in the Coastal Fisheries section. Eight field positions were lost, as well as one analyst and one administrative personnel

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Texas completed its first full year with the red drum tag program, which permits a license holder to keep one red drum over the maximum legal limit. Approximately 16,000 red drum were harvested by this program. G. McCarty reported that they had a 50% return rate with a 79% compliance rate. The program also allowed two new State records to be set.

G. McCarty discussed other efforts of the TPWD, which included preparation of regulatory legislation in the flounder fishery to address concerns in recent trends of that fishery. The TPWD continues to listen to shrimp fishermen regarding their concerns with the use of turtle excluder devices. Although some alternatives have been discussed, no solution has been agreed upon. G. McCarty reported that the State's artificial reef program included 8 new rigs. Although one rig was lost to Louisiana waters, Louisiana lost one rig to Texas waters.

Louisiana - C. Perret reported that the major legislation being addressed by LDWF is the Louisiana Marine Resources Conservation Act. This legislation is currently being looked at by the Department, the Commission and legal counsel. Changes are already being made due to differences in legal opinions. Fishermen have already challenged the legislation and it is likely to end up in court. This legislation requires recreational saltwater anglers to pay an additional $3.00 for their license. These funds will go towards buying back commercial nets. Other impact to the recreational fishery include the loss of fishing license forever for any spotted seatrout violation. In the commercial fishery the use of nets has been reduced. Only strike nets can be used during the mullet and trout season. To qualify for a net license a fishermen must have had a license for at least two years during the period that includes 1993, 1994 or 1995. In addition, he must prove that at least 51% of his income was derived from net fishing during at least two years of the same period. The restrictions on commercial fishermen are severe and net violations are harsh.

Other activities in Louisiana includes the development of an artificial reef off of Grand Isle. When complete, it will be the largest artificial reef in the world. Problems with crab traps continue to be a problem in the crab fishery and the LDWF are working with fishermen and others to find a solution. The oyster resources have been good this year. Good consumer prices resulted in a strike by the fishermen, but did not last. Louisiana is part of the new ISSC approved harvest schedule, which places, at certain times of the year a minimum of six hours from harvest to refrigeration. This schedule is proving to be an enforcement nightmare. Other legislation includes a moratorium on the issuance of commercial crab licenses.

Mississippi - G. Woods reported that the Mississippi Department of Marine Resources has been going through a transition year. As of July 1 the department was renamed; a seven person Commission was established; G. Woods became the new director; and, they have moved into a new facility. The departments mission is now broader. Fisheries is still the central focus along with coastal ecology, habitat and protection and permitting (piers/wetlands). Their mission was restructured based on internal studies and legislative visits. More emphasis will be placed on public relations and they hope to be more responsive to the public. Emphasis is also being placed on technology resources and the MDMR looks forward to working with the Commission's data gathering efforts. The MDMR is working with enforcement on boat and water safety. Economic studies for all programs over $100,000 will be done. Regulations regarding gill nets in Mississippi are in place and will be revisited in one year (January 1996). The MDMR Commission has set a moratorium on selling gill or trammel nets for 120 days. Other issues and regulations being addressed include a ban on commercial fishing and recreational trawling around Gulf Island National Islands; a ban on commercial fishing north of the railroad tracks; and reduction of crab traps per fishermen.

Mississippi shrimp season has been a good one. Oyster season opened in early October and is going well. Mississippi also is working on the new ISSC harvest schedule. Due to a shortage of staff and other resources, the department works closely with Gulf Coast Research Laboratory and has agreements with NASA. The Navy is assisting with identifying oyster reefs. The department has a small artificial reef program with strong recreational interest. They continue to work with Louisiana on the Bonne Carre Project. Mississippi has experienced a small influx of red tide, but there appears to be no major biological impact.

Alabama - V. Minton reported that Alabama also has worked on the gill net issue, initially looking at a ban and finally working on compromise legislation that deals with all aspects of the issue. A limited entry system was developed that would require an individual to have been licensed two out of five years (1989-1993). In addition, proof that 50% of income during the licensed period would have to be from sale or capture of

seafood species. In the event that an individual was licensed for all five years (1989-1993), it is not necessary to show that 50% of income was from sale or capture of seafood, but it is required to show proof of payment of applicable Alabama taxes. In 1994, 638 commercial gill net licenses were sold in Alabama, including 72 sold to Florida residents. To date, 155 licenses have been sold, with approximately 80 more individuals qualified but not yet issued. V. Minton predicts that the State will sell about 200 to 220 licenses in 1995. The legislation does not include exemptions for hardship. The Governor of Alabama established a nine member panel to review hardship cases. They have the authority to issue up to 20 additional licenses based on applications received prior to November 10. Other aspects of the legislation enhance data collection in the State by requiring seafood dealers to report monthly instead of quarterly and requires that all finfish caught in the State of Alabama be landed in the State. Severe penalties for net violations are also a part of the legislation.

V. Minton reported that a committee of fishermen and processors has been established to look at problems in the crab fishery. The ADCNR has noted a reduction in size of the crab, with the harvest appearing to be equal to past years although effort in the fishery has increased. Conflicts between other fisheries, hunters, recreational boaters, etc. continue to cause problems. The committee has already developed suggestions to address these concerns which include a moratorium on the issuance of crab licenses; recommendations for marking traps; and, area closures. The bottom line to the problem is how to reduce the number of traps.

The Alabama oyster harvest remains constant over the years as far as catch and effort. Work is being done to restore historical reefs which are no longer producing for whatever reason, and revitalize them. These plans will not only restore oyster fishing grounds but will also provide excellent recreational fishing.

Florida - E. Conklin reported that in Florida a constitutional amendment went into affect on July 1, 1995 in response to the gill net issue. Basically the amendment banned use of all entanglement nets in State waters and severely limited use in near shore waters. It provided two exemptions for a governmental and scientific use of nets. It also set up a net buy back program which was backed by state funds. This program ran into problems with the issuance of different amounts of money for different nets. Some individuals took advantage of this by altering nets to receive higher amounts of money. This type of fraud has left the program broke. The Department of Labor has intervened and some cases are still being addressed in courts of law.

The oyster fishery in Florida has experienced several problems. An outbreak of virus caused a closure in Apalachicola Bay where 90% of the State's oysters are produced. In addition to the outbreak, they have also experienced recurring and long-term ride tide events. The fishery is now stable and will be fully reopened soon. Florida is also implementing the ISSC harvest schedule.

Florida is also experiencing huge proliferation of crab traps and crab fishing. They are applying their experience with trap reduction in the lobster fishery to the crab fishery. There are problems but they have reduced the number of lobster traps by 50%, while the harvest remains level and in some instances higher. V. Minton suggested that since all of the Gulf States are addressing various issues in the crab fishery that a meeting be set to discuss mutual problems and solutions. L. Simpson will place this topic on the agenda for the next State Directors meeting.

Federal Legislative Issues

L. Simpson briefly reviewed the appropriation authorization for Interjurisdictional Fisheries programs. He stated that the emergency fishery funding was a new appropriation in the amount of $15 million for grants to individual commercial fishermen for uninsured losses suffered as a result of a natural disaster. The implementing rules and regulations are being developed to allow for payment to fishermen and are expected to be completed for review before the end of the year.

L. Simpson provided the Commissioners with amendments to the MFCMA proposed by the Atlantic States Marine Fisheries Commission. He noted that on October 18 the House acted on 13 amendments to the MFCMA which resulted in changes to the Act which includes a requirement of the Councils to include management that minimizes, to the extent practicable, fishery impact on the fish habitat. In addition it does not require the Councils or Secretary of Commerce to amend an FMP in order to comply with individual quota systems if the plan or amended plan was enacted prior to the date of this amendment. It prevents the transfer of ITQs. The amendment allows the regional fishery management councils to take action to reduce shrimp bycatch. Another amendment would provide that no fish may be introduced into interstate commerce of the U.S. unless the Secretary of Commerce certifies that the country doing so has implemented and enforced regulations requiring fish excluder devices on that countries fishing industry. D. Furlong stated that no Department of Commerce regulations currently exist regarding fish excluder devices. L. Simpson further reported that MFCMA has passed in the House and now will be submitted to the Senate for action next week. He noted that language exist concerning state authority in both the House and Senate version which states that for any fishery occurring off the coast of Alaska but within the U.S. EEZ for which there is no federal FMP approved and implemented, a state may enforce its laws or regulations pertaining to the taking of fish in the EEZ and of the landing of fish caught in the EEZ (off that State) provided there is a legitimate interest in the conservation and management of that fishery until a federal FMP is implemented. Fisheries currently managed by federal FMPs shall not be removed from federal management and placed under state authority without the unanimous consent, except for the Regional Director the NMFS. R. Lukens noted that the Senate version provides a National Data System which provides for implementation through cooperative agreements with States, regional tribal entities and marine fisheries commissions. Another point of interest regarding confidentiality of information was proposed language to allow interstate marine fisheries employees as well as state, federal and council employees access to confidential data.

L. Simpson provided the Commissioners with a copy of NMFS FY96 budget. Politics and downsizing has made it a difficult time for fisheries, especially the Department of Commerce. He was pleased with comments from the House floor regarding the importance and neef dor fisheries work and he was pleased to see $20 million added back to the NMFS budget. His personal opinion is that just because appropriations have been made to the agency he still feels that NOAA may be moved as unit to another oversight aagency in the government. A significant change from last years budget is SEAMAP which was reduced from $1.34 million to $700,000 in the House version. The Senate's version has put SEAMAP back up to $1.34 million. He pointed out an increase in fisheries statistics funding and level funding for recreational fishery harvest monitoring. Of importance was the $2.9 million provided for the RecFIN program which currently only exists with the three interstate fisheries commissions. These funds are meant to be split evenly by the three commissions. Continue funding for the red drum assessment and tagging effort in South Carolina and for aerial surveys for red drum recapture and age composition studies in the Gulf is mentioned in the appropriation language in both the House and Senate. The budget includes $4 million for the interstate fish commissions. This amount includes not less than $200,000 for each commission for interjurisdictional fisheries programs. The balance of the funds are currently going to the Atlantic States Marine Fisheries Commission.

GSMFC Executive Committee Report

Ed Conklin reported that the committee met for a breakfast meeting earlier in the day. **On behalf of the committee, he motioned to accept the Commission's FY94 audit report.** G. Sekul seconded. **The motion was approved.**

He presented the FY96 proposed budget. **He motioned to approve the budget as presented ($773,504).** (Attachment B) V. Minton seconded. E. Conklin requested a voice vote. **The motion was approved.**

On behalf of the committee, **E. Conklin proposed a 5% increase in salary for all employees; an additional $1,000 increase for the Administrative Assistant, LJF Staff Assistant and the SEAMAP Staff Assistant; and, an additional $2,000 increase for the Executive Director.** C. Perret seconded. **The motion was approved.**

Future Meetings

G. Herring reported that on the request of the Commissioners she had done a site inspection at the Fort Brown Hotel and Resort in Brownsville, Texas and had signed a contract to hold the Spring 1996 meeting there. In addition, she had sent out 14 request for proposals to New Orleans hotels for the Fall 1996 meeting. She received 12 responses; 8 hotels were unable to accommodate the Commission, and 4 submitted bids. Of the 4 bids received, the Holiday Inn Crowne Plaza was the least expensive (no government rates were submitted). G. Herring explained that March and October were extremely busy for convention business, especially in New Orleans and she has found it impossible to receive a government rate during these times. C. Perret asked that G. Herring contact his office for additional hotels. **V. Minton motioned for G. Herring to seek additional bids and to accept the lowest bid.** C. Perret seconded. **The motion passed.** Five additional request for proposals have subsequently been sent out. Upon receipt of these responses, G. Herring will sign an agreement with the lowest bidder.

G. Herring discussed the hotel situation in Biloxi. She is planning the Spring 1997 early in order to receive a good rate. To date she had not been able to get a government rate. G. Sekul offered assistance with the Isle of Capri Crowne Plaza. As of December 1, 1995, G. Herring was able to renegotiate a lower room rate with this hotel and has signed a contract.

E. Conklin complimented the Commission staff on their ability to move this meeting due to Hurricane Opal on such short notice. The Commissioners agreed and applauded the staff for their efforts.

Publication List

L. Simpson provided the Commissioners with an updated list of all available Commission publications.

Election of Officers

L. Simpson reviewed voting procedures and historical rotation of Commission officers. **G. Wood motioned to nominated C. Perret, Chairman; C. Nelson, V. Chairman; and, G. McCarty, 2nd V. Chairman.** J. Harper seconded. **The motion passed unanimously.**

The meeting was adjourned at 4:35 pm.

GULF STATES MARINE FISHERIES COMMISSION
P.O. Box 726, Ocean Springs, MS 39566-0726
(601) 875-5912 (FAX) 875-6604

Larry B. Simpson
Executive Director

RESOLUTION ON THE USE OF OIL AND GAS PLATFORMS AS ARTIFICIAL REEFS

WHEREAS the Gulf States Marine Fisheries Commission is concerned with the promotion of sound and effective use of artificial reefs in fishery development and management; and,

WHEREAS the Gulf States, in general, and the States of Louisiana and Texas, in particular, have recognized the importance of oil and gas platforms in providing valuable fishery habitat; and,

WHEREAS the States of Louisiana and Texas have established legislatively authorized programs to acquire oil and gas structures for deployment in their coastal waters as artificial reefs; and,

WHEREAS the habitat benefits offered by selected oil and gas structures would be lost if they were towed to shore and dismantled; and

WHEREAS only approximately 10% of the over 800 oil and gas platforms removed from the Gulf of Mexico between 1987 and 1994 have become artificial reefs, since each platform is evaluated on a case by case basis to minimize impacts on other users; and

WHEREAS Shell Oil Company's attempt to dispose of the Brent Spar, an oil storage facility in 6,000 feet of water in the North Sea, created a public outcry to place a moratorium or total ban on offshore disposal of all oil and gas platforms; and,

WHEREAS current International Maritime Organization guidelines, established in 1989 and approved by over 100 nations, recognize that platforms can remain offshore after production ceases, provided they can be designated as having a new alternative use (ie. artificial reefs); and,

WHEREAS the London Convention, scheduled to convene on December 4th through the 8th, 1995, will address the issue of a moratorium or worldwide ban on the disposal of all oil and gas facilities in offshore waters,

NOW THEREFORE BE IT RESOLVED that the Gulf States Marine Fisheries Commission requests that the U.S. State Department representative to the London Convention acknowledge that oil and gas platforms can serve a useful purpose in providing valuable fishery habitat as artificial reefs.

BE IT FURTHER RESOLVED that the U.S. State Department representative to the London Convention should seek an exemption for the use of oil and gas platforms as artificial reefs through formally established artificial reef programs.

BE IT FURTHER RESOLVED that the U.S. State Department representative to the London Convention convey that not all platforms in all locations provide valuable fishery habitat, and, therefore, they should be evaluated on a case by case basis before allowing them to remain offshore.

Given this the twenty-sixth day of October in the year of Our Lord, One Thousand, Nine Hundred, Ninety-five.

Edwin Conklin, Chairman
Gulf States Marine Fisheries Commission

ATTACHMENT B

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget
January 1, 1996 - December 31, 1996

	FY96 Operating Funds	FY96 Total Grants	FY96 Total Budget
EXPENSES			
SALARIES			
Personnel (designated)	38,168	221,069	259,237
Personnel (not designated)	6,639	9,323	15,962
Contract Labor	0	11,580	11,580
Health Insurance	5,396	47,140	52,536
Retirement	3,162	16,102	19,264
Payroll Taxes	4,127	18,499	22,626
MAINTENANCE/OPERATIONS			
Office Rental	2,115	19,885	22,000
Office Supplies	3,000	9,657	12,657
Postage	1,500	8,500	10,000
Professional Services	2,000	5,150	7,150
Travel (Staff)	15,000	17,687	32,687
Telephone	3,000	9,400	12,400
Office Equipment	5,000	4,000	9,000
Copying Expenses	2,943	9,357	12,300
Printing	2,500	13,300	15,800
Meeting Costs	8,000	8,375	16,375
Subscriptions/Dues	1,600	229	1,829
Auto Expenses	2,000	800	2,800
Insurance	3,200	1,904	5,104
Maintenance	1,500	4,306	5,806
Petty Cash	300	0	300
Commission Courtesies	300	0	300
Committee Travel	0	163,255	163,255
Contractual	9,550	52,986	62,536
TOTAL	$121,000	$652,504	$773,504
INCOME			
STATE CONTRIBUTIONS			
Alabama	22,500		
Florida	22,500		
Louisiana	22,500		
Mississippi	22,500		
Texas	22,500		
TOTAL DUES			112,500
INTEREST	4,000		4,000
REGISTRATION FEES	4,500		4,500
FUNDS FROM RESERVES	0		0
GRANTS			
SEAMAP		80,504	
Interjurisdictional Fisheries		200,000	
Sport Fish Restoration		200,000	
Council - FY96		18,750	
Council - FY97		6,250	
FWS - FY96		13,725	
FWS - FY97		4,575	
RecFIN/ComFIN-FY95		64,351	
RecFIN/ComFIN-FY96		64,349	
TOTAL GRANTS			652,504
TOTAL	$121,000	$652,504	$773,504

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

OPERATING FUNDS

January 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	31,936
Assistant Director	1,887
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	3,986
Administrative Assistant	359
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	0
Personnel (not designated)	6,639
Contract Labor	0
Health Insurance	5,396
Retirement	3,162
FICA Taxes	3,452
Unemployment Taxes	675
MAINTENANCE/OPERATIONS	
Office Rental	2,115
Office Supplies	3,000
Postage	1,500
Professional Services	2,000
Travel (Staff)	15,000
Telephone	3,000
Office Equipment	5,000
Copying Expenses	2,943
Printing	2,500
Meeting Costs	8,000
Subscriptions/Dues	1,600
Auto Expenses	2,000
Insurance	3,200
Maintenance	1,500
Petty Cash	300
Commission Courtesies	300
Committee Travel	0
Contractual (auto payments)	9,550
TOTAL	$121,000

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

SEAMAP

January 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	0
Assistant Director	0
IFJ Coordinator	0
SM Coordinator	16,584
Executive Assistant	5,676
Administrative Assistant	2,310
IJF Staff Assistant	0
SM Staff Assistant	7,865
Staff Assistant	0
Personnel (not designated)	1,723
Contract Labor	0
Health Insurance	7,564
Retirement	2,391
FICA Taxes	2,613
Unemployment Taxes	0
MAINTENANCE/OPERATIONS	
Office Rental	4,200
Office Supplies	1,080
Postage	3,000
Professional Services	900
Travel (Staff)	0
Telephone	1,600
Office Equipment	0
Copying Expenses	2,200
Printing	5,300
Meeting Costs	1,000
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	1,461
Petty Cash	0
Commission Courtesies	0
Committee Travel	13,037
Contractual	0
TOTAL	$80,504

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

INTERJURISDICTIONAL FISHERIES

January 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	5,888
Assistant Director	0
IFJ Coordinator	30,234
SM Coordinator	0
Executive Assistant	5,676
Administrative Assistant	2,310
IJF Staff Assistant	18,275
SM Staff Assistant	0
Staff Assistant	0
Personnel (not designated)	3,426
Contract Labor	0
Health Insurance	12,696
Retirement	4,606
FICA Taxes	5,034
Unemployment Taxes	300
MAINTENANCE/OPERATIONS	
Office Rental	4,340
Office Supplies	3,477
Postage	3,000
Professional Services	1,400
Travel (Staff)	5,312
Telephone	3,000
Office Equipment	4,000
Copying Expenses	3,000
Printing	4,000
Meeting Costs	4,000
Subscriptions/Dues	100
Auto Expenses	600
Insurance	700
Maintenance	1,700
Petty Cash	0
Commission Courtesies	0
Committee Travel	72,926
Contractual	0
TOTAL	$200,000

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

SPORT FISH RESTORATION

January 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	5,888
Assistant Director	33,952
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	5,676
Administrative Assistant	12,706
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	0
Personnel (not designated)	1,698
Contract Labor	11,580
Health Insurance	10,260
Retirement	4,194
FICA Taxes	4,584
Unemployment Taxes	300
MAINTENANCE/OPERATIONS	
Office Rental	3,594
Office Supplies	2,500
Postage	1,500
Professional Services	1,300
Travel (Staff)	12,375
Telephone	3,400
Office Equipment	0
Copying Expenses	2,500
Printing	2,000
Meeting Costs	1,800
Subscriptions/Dues	129
Auto Expenses	200
Insurance	1,204
Maintenance	1,145
Petty Cash	0
Commission Courtesies	0
Committee Travel	22,529
Contractual	52,986
TOTAL	$200,000

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

COUNCIL - FY96

January 1, l996 - September 30, l996

SALARIES	
Personnel	
Executive Director	9,274
Assistant Director	0
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	4,257
Administrative Assistant	866
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	0
Personnel (not designated)	0
Contract Labor	0
Health Insurance	1,890
Retirement	1,008
FICA Taxes	1,101
Unemployment Taxes	0
MAINTENANCE/OPERATIONS	
Office Rental	354
Office Supplies	0
Postage	0
Professional Services	0
Travel (Staff)	0
Telephone	0
Office Equipment	0
Copying Expenses	0
Printing	0
Meeting Costs	0
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	0
Contractual	0
TOTAL	$18,750

'GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

COUNCIL - FY97

October 1, l996 - December 31, l996

SALARIES	
Personnel	
Executive Director	3,091
Assistant Director	0
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	1,419
Administrative Assistant	289
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	0
Personnel (not designated)	0
Contract Labor	0
Health Insurance	630
Retirement	336
FICA Taxes	367
Unemployment Taxes	0
MAINTENANCE/OPERATIONS	
Office Rental	118
Office Supplies	0
Postage	0
Professional Services	0
Travel (Staff)	0
Telephone	0
Office Equipment	0
Copying Expenses	0
Printing	0
Meeting Costs	0
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	0
Contractual	0
TOTAL	$6,250

GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

FWS - FY96

January 1, 1996 - September 30, l996

SALARIES	
Personnel	
Executive Director	0
Assistant Director	0
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	1,064
Administrative Assistant	0
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	4,947
Personnel (not designated)	248
Contract Labor	0
Health Insurance	2,430
Retirement	420
FICA Taxes	460
Unemployment Taxes	0
MAINTENANCE/OPERATIONS	
Office Rental	3,064
Office Supplies	450
Postage	0
Professional Services	150
Travel (Staff)	0
Telephone	150
Office Equipment	0
Copying Expenses	342
Printing	0
Meeting Costs	0
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	0
Contractual	0
TOTAL	$13,725

'GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

FWS - FY97

October 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	0
Assistant Director	0
IFJ Coordinator	0
SM Coordinator	0
Executive Assistant	355
Administrative Assistant	0
IJF Staff Assistant	0
SM Staff Assistant	0
Staff Assistant	1,649
Personnel (not designated)	82
Contract Labor	0
Health Insurance	810
Retirement	140
FICA Taxes	153
Unemployment Taxes	0
MAINTENANCE/OPERATIONS	
Office Rental	1,021
Office Supplies	150
Postage	0
Professional Services	50
Travel (Staff)	0
Telephone	50
Office Equipment	0
Copying Expenses	115
Printing	0
Meeting Costs	0
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	0
Contractual	0
TOTAL	$4,575

'GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

RecFIN/ComFIN - FY96

January 1, 1996 - June 30, 1996

SALARIES	
Personnel	
Executive Director	0
Assistant Director	943
IFJ Coordinator	0
SM Coordinator	8,292
Executive Assistant	2,838
Administrative Assistant	1,105
IJF Staff Assistant	0
SM Staff Assistant	3,933
Staff Assistant	3,298
Personnel (not designated)	1,073
Contract Labor	0
Health Insurance	5,430
Retirement	1,503
FICA Taxes	1,644
Unemployment Taxes	150
MAINTENANCE/OPERATIONS	
Office Rental	1,597
Office Supplies	1,000
Postage	500
Professional Services	675
Travel (Staff)	0
Telephone	600
Office Equipment	0
Copying Expenses	600
Printing	1,000
Meeting Costs	788
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	27,382
Contractual	0
TOTAL	$64,351

'GULF STATES MARINE FISHERIES COMMISSION
FY96 Budget

RecFIN/ComFIN - FY96

July 1, 1996 - December 31, 1996

SALARIES	
Personnel	
Executive Director	0
Assistant Director	943
IFJ Coordinator	0
SM Coordinator	8,292
Executive Assistant	2,838
Administrative Assistant	1,105
IJF Staff Assistant	0
SM Staff Assistant	3,933
Staff Assistant	3,298
Personnel (not designated)	1,073
Contract Labor	0
Health Insurance	5,430
Retirement	1,504
FICA Taxes	1,643
Unemployment Taxes	150
MAINTENANCE/OPERATIONS	
Office Rental	1,597
Office Supplies	1,000
Postage	500
Professional Services	675
Travel (Staff)	0
Telephone	600
Office Equipment	0
Copying Expenses	600
Printing	1,000
Meeting Costs	787
Subscriptions/Dues	0
Auto Expenses	0
Insurance	0
Maintenance	0
Petty Cash	0
Commission Courtesies	0
Committee Travel	27,381
Contractual	0
TOTAL	$64,349

GULF STATES MARINE FISHERIES COMMISSION

P.O. Box 726, Ocean Springs, MS 39566-0726
(601) 875-5912 (FAX) 875-6604

Larry B. Simpson
Executive Director

RESOLUTION ON THE USE OF OIL AND GAS PLATFORMS AS ARTIFICIAL REEFS

WHEREAS the Gulf States Marine Fisheries Commission is concerned with the promotion of sound and effective use of artificial reefs in fishery development and management; and,

WHEREAS the National Fishing Enhancement Act and Plan encourages states to develop well planned and organized artificial reef programs and identifies oil and gas platforms as suitable artificial reef material; and

WHEREAS the Gulf States, in general, and the States of Louisiana and Texas, in particular, have recognized the importance of oil and gas platforms in providing valuable fishery habitat; and,

WHEREAS the States of Louisiana and Texas have established legislatively authorized programs to acquire oil and gas structures for deployment in their coastal waters as artificial reefs; and,

WHEREAS the habitat benefits offered by selected oil and gas structures would be lost if they were towed to shore and dismantled; and

WHEREAS only approximately 10% of the over 800 oil and gas platforms removed from the Gulf of Mexico between 1987 and 1994 have become artificial reefs, since each platform is evaluated on a case by case basis to minimize impacts on other users; and

WHEREAS Shell Oil Company's attempt to dispose of the Brent Spar, an atypical oil structure used to store oil in the North Sea, created a public outcry to place a moratorium or total ban on offshore disposal of all oil and gas platforms; and,

WHEREAS current International Maritime Organization guidelines, established in 1989 and approved by over 100 nations, recognize that platforms can remain offshore after production ceases, provided they can be designated as having a new alternative use (ie. artificial reefs); and,

WHEREAS the London Convention, scheduled to convene on December 4th through the 8th, 1995, will address the issue of a moratorium or worldwide ban on the disposal of all oil and gas facilities in offshore waters,

NOW THEREFORE BE IT RESOLVED that the Gulf States Marine Fisheries Commission requests that the U.S. State Department representative to the London Convention acknowledge that oil and gas platforms serve a useful purpose in providing valuable fishery habitat as artificial reefs.

BE IT FURTHER RESOLVED that the Gulf States Marine Fisheries Commission requests that the U.S. State Department representative to the London Convention convey that regional and geographic differences which exist worldwide require that proposals to use oil and gas platforms as artificial reefs be evaluated on a case by case basis.

BE IT FURTHER RESOLVED that the Gulf States Marine Fisheries Commission requests that the U.S. State Department representative to the London Convention seek an exemption for the use of oil and gas platforms as artificial reefs through formally established artificial reef programs.

Given this the twenty-sixth day of October in the year of Our Lord, One Thousand, Nine Hundred, Ninety-five.

Edwin Conklin, Chairman
Gulf States Marine Fisheries Commission

David Ruple

TCC HABITAT SUBCOMMITTEE
MINUTES
September 14-15, 1995
Mobile, AL

Dave Ruple, Chairman, called the meeting to order on Thursday, September 14 at 1:25 p.m. The following were in attendance:

Members
David Ruple, MDMR, Biloxi, MS
Ed Keppner, NFMS, Panama City, FL
Larry Goldman, USFWS, Daphne, AL
J. Dale Shively, TPWD, Austin, TX
Paul Coreil, LCES/LSG, Baton Rouge, LA

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

By consensus, the agenda was adopted as presented.

Approval of Minutes

L. Goldman moved and D. Shively seconded that the minutes of the March 14, 1995, meeting be adopted as written. The motion carried without objection.

Discussion of Program Goal and Objectives

The committee reviewed the program goal that was developed at the previous meeting and determined that no changes were needed. The committee noted that the program objectives developed at the last meeting were somewhat specific and perhaps should be broadened. L. Goldman agreed and noted that coordination of the activities of regulatory agencies and other habitat-oriented councils and commissions such as the GMFMC and GSMFC could be an objective of the committee. Other topics identified for objective development include: fishery management plans (FMPs), problems, educational activities, regulatory partnerships, and a newsletter. R. Leard will develop language for objectives addressing these topics and perhaps others and distribute it to the committee.

As part of the regulatory objective, the committee tentatively agreed to develop a Habitat Protection, Enhancement, and Restoration Plan using the Gulf of Mexico Program's Status and Trends of Emergent and Submerged Vegetated Habitats, GOM, USA and their review of the Corps of Engineer's regulatory programs as boiler plates. The committee also discussed problems among regulatory and advisory components stemming from inaction and inconsistent actions

regarding permits and habitat alteration projects. They agreed to attempt to set up a workshop or some other forum where representatives from the states, FWS, NMFS, EPA, Corps of Engineers, GMFMC, GSMFC, environmental groups, and fishing industry representatives would discuss these and perhaps other regulatory problems. Committee input is needed to design and structure such a workshop; however, it was noted that the focus should be on state and federal regulatory programs and their effects on the quality and quantity of marine fish habitat. Committee members need to develop a list of topics and questions to be addressed at such workshop. The GSMFC would set up and help sponsor it.

The committee also discussed the habitat outline for interjurisdictional FMPs being used by the ASMFC. R. Leard will distribute the outline to the committee. Need input from the committee on application of this outline or a modified version for IJF FMPs.

The committee discussed numerous man-made and naturally occurring problems with marine fisheries habitat. These will be addressed further when the objective is developed.

With regard to education, it was noted that the GSMFC was currently involved with the development of a brochure (with the ASMFC and PSMFC) and a poster with funding from EPA and Chevron, USA in Pascagoula, Mississippi, respectively. The committee also discussed the continued identification and compilation of educational materials from other agencies and organizations, especially the GOM Program office and agreed talk with them further to complement programs. D. Shively volunteered to compile materials and maintain the list, and the committee should send all materials and material lists to Dale rather than Rick. The committee discussed ideas for additional educational materials including a poster emphasizing the importance of wetlands to seafood using the life cycle of shrimp. It was noted that other educational opportunities need to be identified by the committee.

The committee discussed various funding opportunities from both public and private sources. R. Leard, D. Ruple, L. Goldman, and D. Smith (FWS) will get together and draft a proposal for funding from the GOM Program. R. Leard will contact the ASMFC and PSMFC about resubmission of a proposal to the National Fish and Wildlife Foundation and approaching personal watercraft manufacturers regarding funding for habitat educational projects on oil spill prevention and habitat damage from boating, respectively. The state representatives on the committee were asked to identify potential funding sources. They were also asked to obtain lists of foundations in each state or a source where such lists could be obtained and send them to R. Leard with the objective of identifying foundations that might fund habitat-related projects.

The committee discussed a newsletter and decided to include a habitat activities section in the current GSMFC newsletter for the present. They also agreed to send announcements of meetings of interest to R. Leard for distribution to the committee. The committee tentatively agreed to meet in November or December to review objectives and other progress.

There being no further business, the meeting adjourned at 11:30 a.m.

APPROVED BY:

COMMITTEE CHAIRMAN

TCC HABITAT SUBCOMMITTEE
MINUTES
December 14-15, 1995
New Orleans, LA

Dave Ruple, Chairman, called the meeting to order on Thursday, December 14, 1995 at 1:25 p.m. The following were in attendance:

Members
Philip Bowman, LDWF, Baton Rouge, LA
Paul Coreil, LCES/LSG, Baton Rouge, LA
Larry Goldman, USFWS, Daphne, AL
Penny Hall, FDEP, St. Petersburg, FL
Dave Ruple, MDMR, Biloxi, MS
Dale Shively, TPWD, Austin, TX

Staff
Rick Leard, GSMFC, Ocean Springs, MS
Cindy Yocom, GSMFC, Ocean Springs, MS

Adoption of Agenda

Without objection, the agenda was adopted as presented.

Approval of Minutes

L. Goldman moved and P. Coreil seconded that the minutes of the September 14-15, 1995, meeting be adopted as written. The motion carried unanimously.

Report on Gulf States Environmental Valuation Workshop

D. Ruple gave a brief report on the Gulf States Environmental Valuation Workshop held on September 20-21, 1995, and sponsored by NOAA's Coastal Ocean Program and Office of the Chief Scientist. He noted that the workshop focused on techniques and methodology that had been used, as well as case studies from other areas. He also stated that the benefit transfer portion of the workshop was perhaps the most useful because it discussed techniques for using values from one area and applying them to another. *R. Leard will send copies of *Economic Valuation of Natural Resources - A Handbook for Coastal Resource Policymakers* that was distributed at the workshop to the subcommittee. P. Coreil noted that a similar workshop entitled *Economics of Natural Resource Management - Values of Fish, Wildlife, and Habitat.* *P. Coreil will send a copy of its proceedings to R. Leard, and he will distribute copies to the subcommittee.

P. Coreil also noted that a mitigation document for Louisiana based on habitat values was available. *He will send it to R. Leard for distribution to the subcommittee. *P. Coreil will also

send Louisiana's Coastal Wetlands Conservation Plan and a fisheries and restoration report to R. Leard for distribution to the subcommittee.

It was also noted that Louisiana was also working on a oyster lease valuation matrix that could be used for mitigation if leases are damaged, destroyed, or relocated.

Review of Subcommittee Objectives

The subcommittee reviewed a draft of six objectives and made several changes (see attached). L. Goldman moved and P. Hall seconded that the objectives be approved as modified. The motion carried unanimously. *They will be presented as part of the report to the TCC in March 1996 (see attached).

Discussion of a Conference on the Effects of Regulatory Functions on the Quality and Quantity of Fisheries Habitat

L. Goldman reviewed the discussions of such a conference from the September 14-15, 1995, meeting. He noted that an agenda for a Gulfwide Regulatory meeting had been developed under the Gulf of Mexico Program umbrella (see attached); however, the meeting has not been held. *By consensus, the subcommittee agreed that L. Goldman, P. Bowman, and R. Leard would contact the GOMP office and determine if GOMP will pursue the meeting either separately or, if they would like, in conjunction with the Habitat Subcommittee and the GSMFC. If the GOMP is not interested in pursuing this conference, the subcommittee agreed that L. Goldman, P. Bowman, and R. Leard would develop a proposal and distribute it to the subcommittee for review. It was noted that the earliest that the conference could be held would be in fall 1996 following review by the TCC and S-FFMC at their March 1996 meetings.

Discussion of Habitat Protection, Enhancement, and Restoration Plan

L. Goldman reviewed discussions from the September 14-15, 1995, meeting noting that a plan could be developed using the 1992 *Status and Trends of Emergent and Submerged Vegetated Habitats, Gulf of Mexico, USA* as a source document. The subcommittee noted that the development of such a plan would be a large project that could not be initiated in 1996 if the regulatory agency conference proceeds. *The subcommittee agreed to postpone consideration of developing a habitat protection, enhancement, and restoration plan until later in 1996. In the meantime, the subcommittee agreed that members should consider the potential contents of such a plan, and it was noted that the importance of vegetated wetlands to marine fisheries should be included in the document.

Review of Habitat Sections of IJF FMPs

R. Leard presented an outline that the ASMFC was currently using for habitat sections of their IJF FMPs that is more comprehensive than IJF plans by the GSMFC. He suggested that these sections could be "beefed up" in future FMPs and revisions. The subcommittee agreed that the outline was a good guide, and it could be tailored to fit different species undergoing IJF FMP

planning in the Gulf. *R. Leard stated that he would send copies of previously developed IJF FMPs and a copy of the habitat section of the ASMFC's weakfish FMP to the subcommittee.

R. Leard noted that the TCC Habitat Subcommittee could assist the TTFs in the development of these habitat sections by providing data and reviewing their structure and content. P. Bowman suggested that a habitat person be appointed to each TTF. *Following discussion, P. Bowman moved and L. Goldman seconded that a recommendation be sent to the TCC requesting that the Habitat Subcommittee be authorized to appoint a representative to each TTF that is a habitat specialist, knowledgeable and experienced in marine habitat management. The motion carried unanimously. *Following further discussion, the subcommittee agreed to provide names of persons who would serve on the spotted seatrout, flounder, and blue crab TTFs to R. Leard by January 8, 1996. It was also noted that the habitat representative on the TTFs would report to the Habitat Subcommittee, and the subcommittee would assist in the development and review of habitat sections of IJF FMPs and provide comments to the TTFs.

Status of Funding Sources

The subcommittee readdressed the need to identify potential state, federal, and private sources for funding, particularly EPA grants and private industries and foundations. The subcommittee agreed to work to identify foundations and other sources of funding and provide information to R. Leard.

Review of the Impact of the Brown Mussel, *Perna perna*

R. Leard read a report from Tom Serota who was unable to attend the meeting (see attached).

Upcoming Meetings of Interest

The subcommittee reviewed the following upcoming meetings:

(1) A habitat management meeting in Philadelphia, PA in February 1996 - details will be mailed when received from the ASMFC.

(2) GMFMC joint habitat subpanel meeting, January 25-26, 1996

(3) Sabine Lake Ecosystems Management Conference, September 1996, Orange, TX, sponsored by Texas Water Development Board and Texas and Louisiana Sea Grant.

(4) Conflict resolution conference, Seattle, WA, July 1996 (Phil Bowman has details).

Other Business

The subcommittee agreed to spend some time during future meetings visiting habitat management and restoration sites in the states, particularly the numerous, unique activities being conducted in south Louisiana to combat dramatic losses of vegetated wetlands.

*P. Hall will send Florida's draft ecosystems management plan to R. Leard for distribution to the subcommittee.

*Add the subcommittee to the GSMFC's *Compact News* mailing list. Subcommittee members should send newsworthy information to R. Leard for inclusion in future issues of *Compact News*.

*Send the list of Commissioners, Proxies, and Habitat Subcommittee members to P. Coreil for his Wetlands News mailout.

There being no further business, the meeting adjourned at 10:30 a.m.

GULF STATES MARINE FISHERIES COMMISSION

Habitat Program Objectives

1. To enhance coordination of habitat activities among regulatory agencies, councils and commissions such as the Gulf of Mexico Fishery Management Council and the Gulf States Marine Fisheries Commission (GSMFC).

2. To assist in the development and review of habitat identification and assessment portions of interjurisdictional fishery management plans (FMPs).

3. To identify Gulfwide marine fishery habitat issues and take appropriate actions.

4. To develop and participate in marine habitat educational activities.

5. To promote state and federal regulatory-agency partnerships and agreements.

6. To disseminate information regarding habitat program activities through the GSMFC newsletter or other appropriate media.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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Rick Leard
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Rick,

Sorry I had to cancel my attendance at the upcoming habitat meeting in New Orleans, but with the budgetary restraints and general restrictions on travel, etc., I have no option.

Please provide the group with the following update on the office's activities involving our monitoring of Perna perna in Texas waters:

A. Number of Trips: 9

B. New colonies: 5

C. Northern expansion since project started is 130 miles/210 km to Freeport Jetties.

D. Expansion into the

Brownsville Ship Channel:	3m/5km
Lower Laguna Madre:	9m/14.5km
Corpus Christi Bay:	5m/8km
Matagorda Bay:	6m/10km

E. Artificial substrates implanted at:
Cedar Bayou
Pass Cavallo
Mouth of San Bernard River
Mouth of Brazos River
And control areas

F. A total of 19 gulf passes and areas have been sampled.

Some progress has been made towards the following limiting factors: salinity, temperature, predators, and substrates. Obviously, there is much laboratory work that could and should be conducted to better establish the above factors.

This office will continue monitoring the movement of Perna perna throughout FY 96 and we hope to secure additional funding in FY 97.

Please feel free to contact this office if you need further information. Again, I apologize for not being able to attend the meeting.

Sincerely,

Tom Serota by KB
Tom Serota
Project Leader, CCFRO