

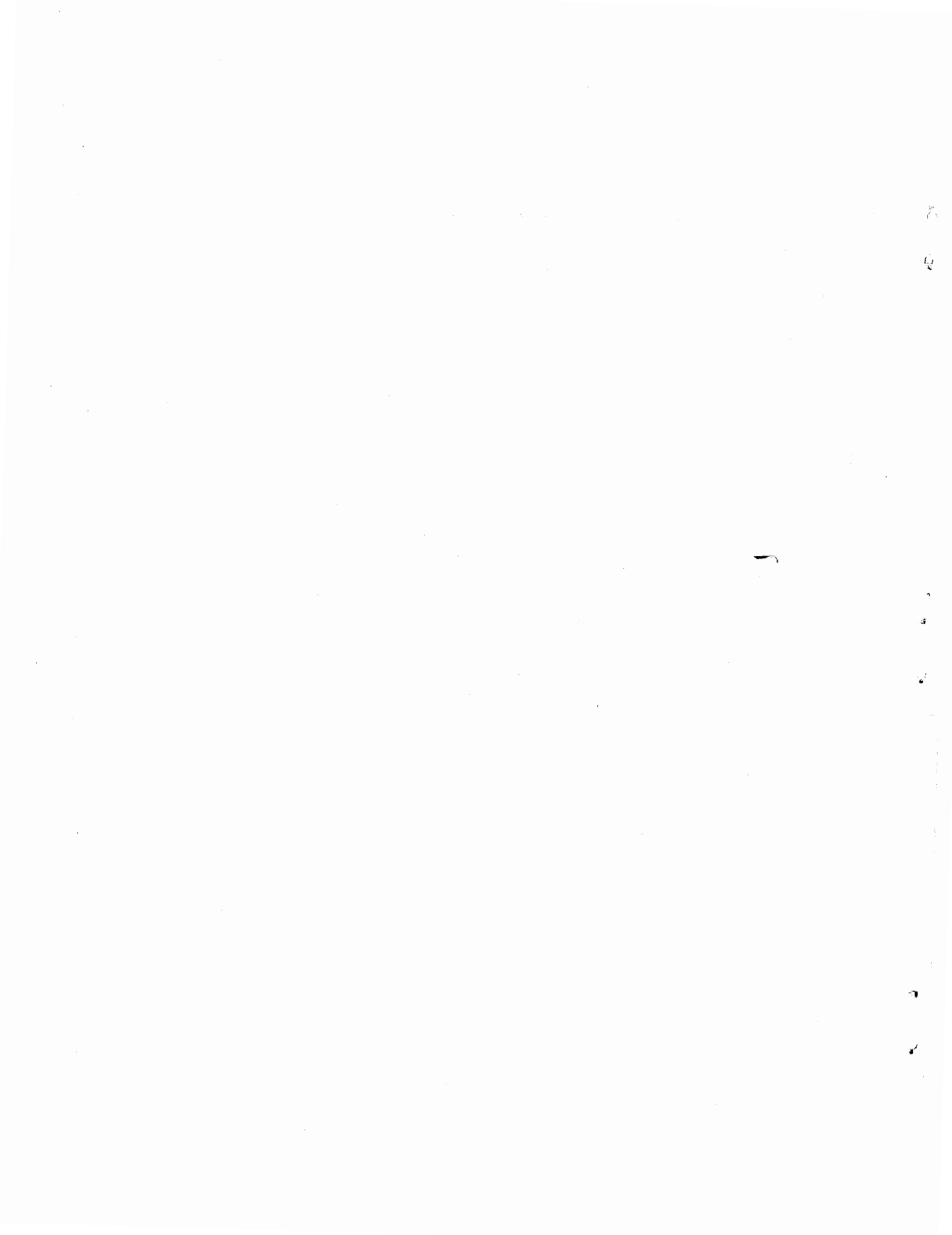
# **SEAMAP ANNUAL REPORT**

*to the  
Technical Coordinating Committee  
Gulf States Marine Fisheries Commission*

**October 1, 1987 to September 30, 1988**

**SEAMAP Subcommittee  
Walter M. Tatum, Chairman**

**October 20, 1988**



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TO THE  
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*GULF STATES MARINE FISHERIES COMMISSION*

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*WALTER M. TATUM, CHAIRMAN*

*OCTOBER 20, 1988*

*TOM VAN DEVENDER  
SEAMAP COORDINATOR  
GULF STATES MARINE FISHERIES COMMISSION*

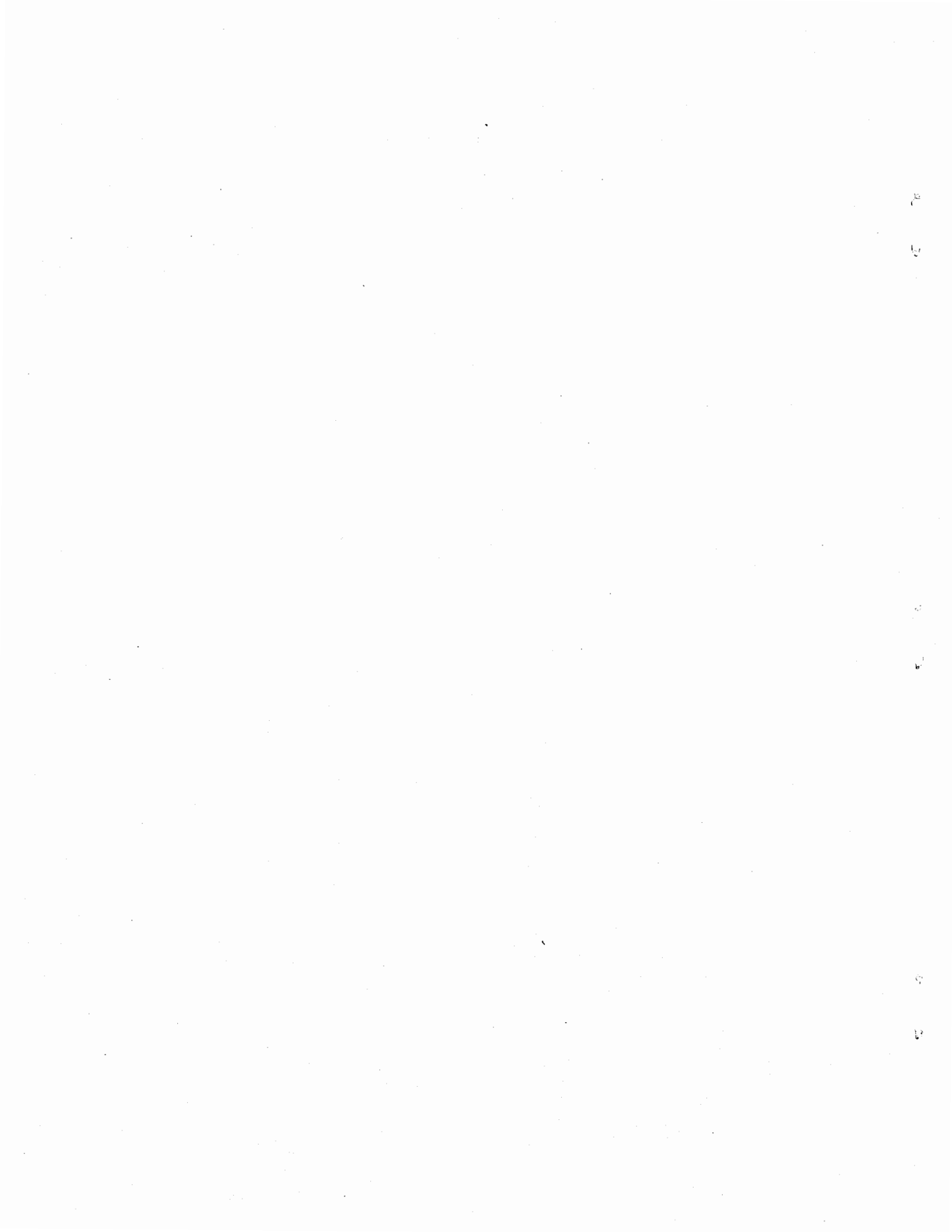
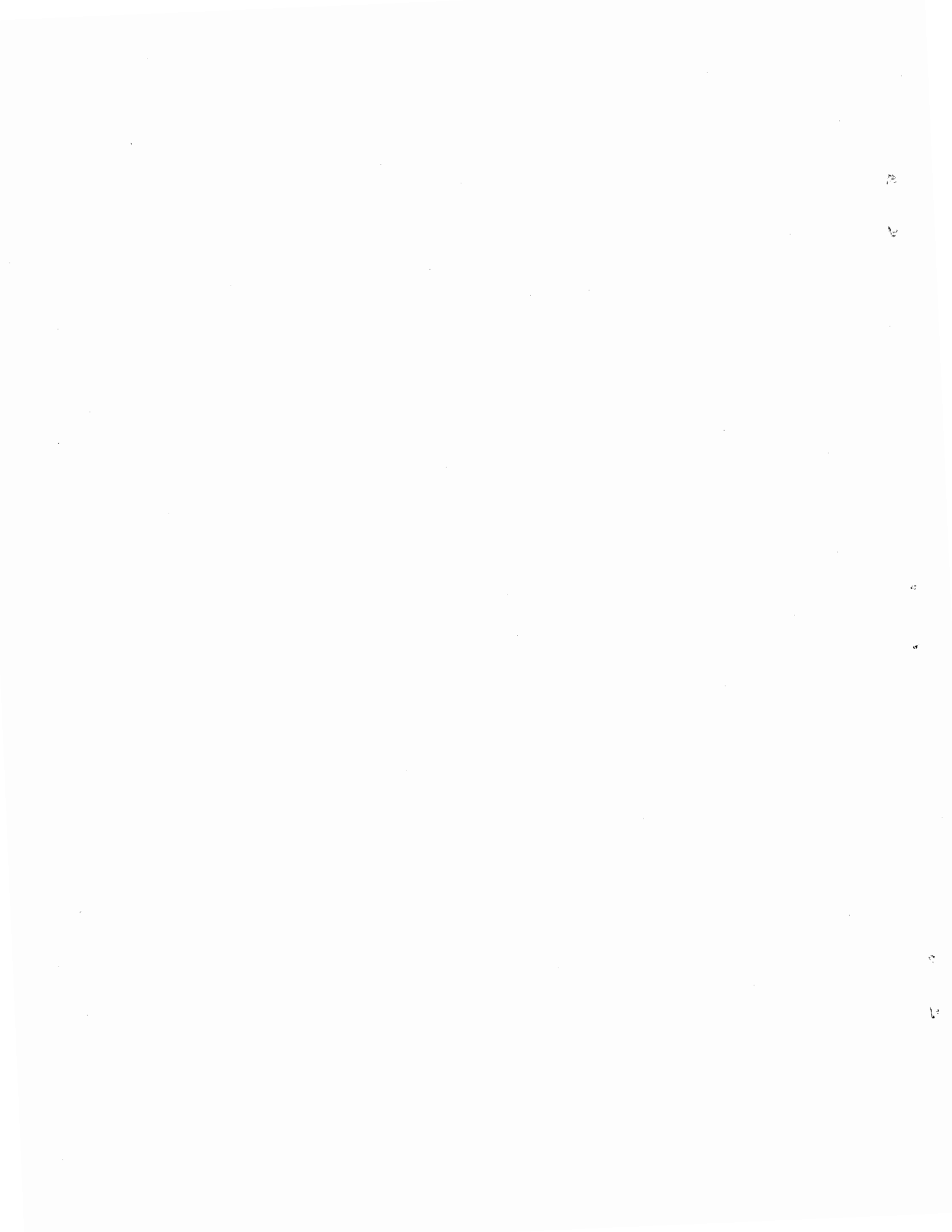


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## INTRODUCTION

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

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

Federal programmatic funding for SEAMAP activities and administration was appropriated in Fiscal Years 1985, 1986, 1987, and 1988 (October 1, 1987 through September 30, 1988). State and Commission funding allocations for FY1986, FY1987, and FY1988 were handled through State-Federal cooperative agreements, administered by NMFS/SERO and NMFS/SEFC.

In FY1988, SEAMAP operations continued for the seventh consecutive year. SEAMAP resource surveys included the Fall Shrimp/Groundfish Survey, Louisiana seasonal trawl surveys, Spring Plankton Survey, Summer Shrimp/Groundfish Trawl Survey, September Plankton Survey and plankton and environmental data surveys. Special projects for FY1988 consisted of the Status and Trends Benthic Surveillance Project. Other FY1988 activities included SEAMAP information services and program management. Resource survey areas in FY1988 are shown in Figure 1.

This report is the eighth in a series of annual SEAMAP Subcommittee reports to the Technical Coordinating Committee (TCC) of the Gulf States Marine Fisheries Commission. It is intended to inform the TCC of SEAMAP-Gulf of Mexico activities and accomplishments during FY1988, from October 1, 1987 through September 30, 1988, and proposed SEAMAP activities for FY1989.

Appreciation is gratefully extended to the staff of the Gulf States Marine Fisheries Commission, and to the NMFS-Mississippi Laboratories, for their considerable assistance in the preparation of this document.

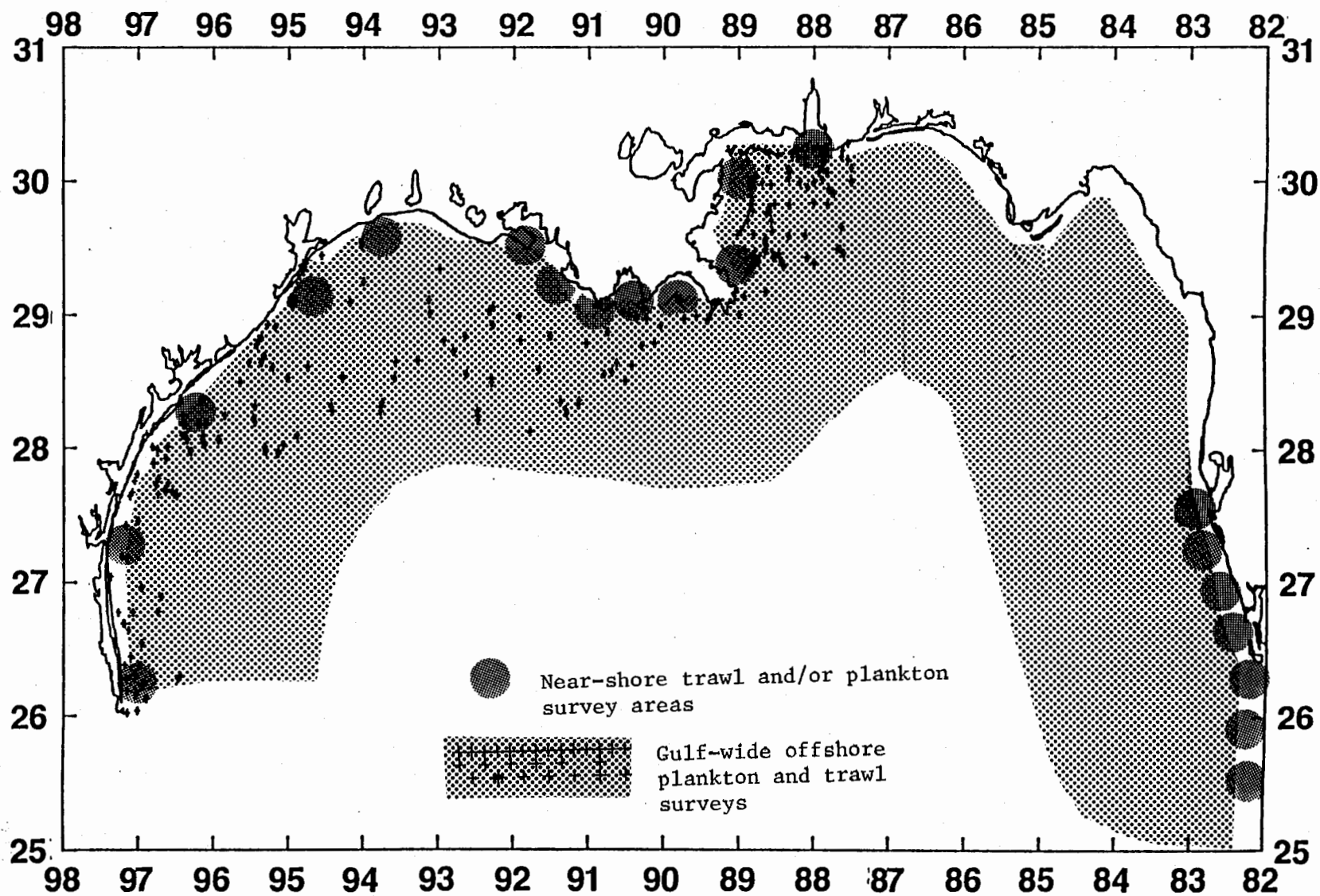


Figure 1. 1988 SEAMAP Survey Areas



**1988 SEAMAP RESOURCE SURVEYS**



## FALL SHRIMP/GROUNDFISH SURVEY

The 1987 Fall Shrimp/Groundfish Survey was conducted from October 23 - December 3, 1987, from off Pensacola, Florida to the U.S.-Mexican border. Vessels from NMFS, Alabama, Mississippi, Louisiana and Texas sampled inshore and offshore waters to 60 fm, covering a total of 294 trawl stations, in addition to plankton and environmental sampling.

Sampling design was modified from previous fall surveys to conform to the summer shrimp/groundfish cruise; objectives of the survey were:

- (1) sample the northern Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60 fm;
- (2) Obtain length frequency measurements for major finfish and shrimp species to determine population size structures;
- (3) Collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters.
- (4) Collect ichthyoplankton samples to determine relative abundance and distribution of eggs and larvae of commercial and recreationally important fish species.

### SURVEY SUMMARY

During the survey the NOAA Ship OREGON II sampled offshore waters and territorial Louisiana and Texas waters. The R/V TOMMY MUNRO sampled Mississippi territorial and offshore waters. The R/V PELICAN sampled Louisiana territorial and offshore waters, and an Alabama vessel sampled territorial Alabama waters. Texas vessels sampled within territorial waters.

In addition to the survey activities, five comparative tows were conducted between the OREGON II and TOMMY MUNRO pulling 40-ft trawls and an Alabama vessel pulling a 16-ft trawl. Data will be used to develop calibration factors for the various gear and allow reporting of catch by standard 40-ft trawl hauls.

Of the total 294 trawl samples taken, NMFS completed 171 stations; Alabama 8, Mississippi 14, Louisiana 21 and Texas 80 trawl stations. Areas of trawl stations are indicated on Figure 2. All vessels took environmental data, including temperature, salinity and oxygen.

In the offshore samples catch rates were higher at night than during the day, and most of the biomass occurred in the 40-49 fm depth stratum. Geographically, catch rates were highest east of the River delta and decreased with westward movement.

Sampling design in previous fall surveys allowed for day/night classifications to be determined by time of day stations were encountered along the cruise track. This method may have confounded effects of area and depth with diel effects. The 1987 Fall Survey had day and night treated as independent strata during station selection, eliminating the confusion of areal and diel effects.

Ichthyoplankton data were collected by all, except Texas vessels, at sample sites occurring nearest to half-degree intervals of latitude/longitude.

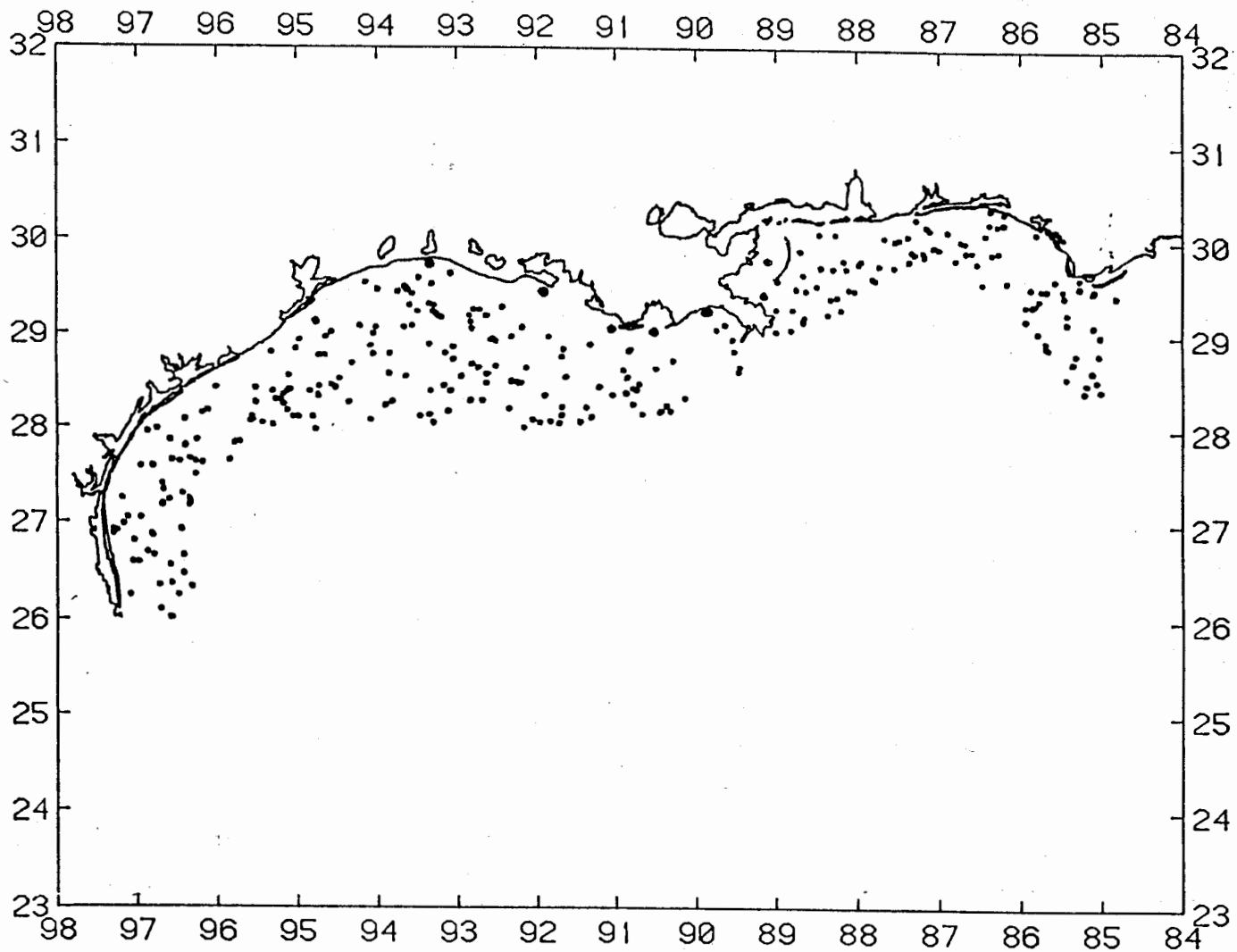


Figure 2. Fall 1987 SEAMAP Shrimp/Groundfish Survey

## LOUISIANA SEASONAL DAY/NIGHT TRAWL SURVEYS

The Louisiana Department of Wildlife and Fisheries is conducting seasonal day and night surveys as part of its continuing effort to provide comparative information on the abundance and distribution of critical life states of major Gulf species, especially shrimp, and associated environmental parameters. The sampling design for these surveys has changed little from similar day/night surveys in past years.

### SURVEY SUMMARY

Sampling was conducted in October and December 1987 and March and July 1988 aboard the R/V PELICAN. A stratified random station selection design was maintained, varying from the transects previously surveyed. A total of 48 stations was sampled day and night at depths to 19 fm. The July sampling was completed as part of the SEAMAP Summer Shrimp/Groundfish Survey.

All seasonal trawls were completed with the standard SEAMAP 40-ft net and doors. All organisms captured were identified, counted, measured and weighed; environmental data and plankton/neuston sampling were conducted at trawl stations. The area sampled covered Louisiana territorial and EEZ waters from 89°30' to 91°30' W. Long.

Additionally, LDWF conducted separate, territorial sea shrimp/groundfish surveys to provide coastwide monitoring and assessment information on the abundance and distribution of shrimp and groundfish in this area. These were conducted in conjunction with NMFS summer and fall shrimp/groundfish trawling surveys in the EEZ, using, however, a 16-ft otter trawl on state vessels. Sampling was done along 7 transects (Figure 3), to depths of 5 fm. All organisms were identified, weighed and measured. Transects corresponded to seven coastal study areas sampled previously. Plankton and environmental sampling was conducted at all stations. Plankton samples were not transhipped to the Polish Sorting Center, but archived and sorted at the LDWF Plankton Laboratory. Specimens and data will be shipped to the SEAMAP Archiving Center in St. Petersburg, FL.

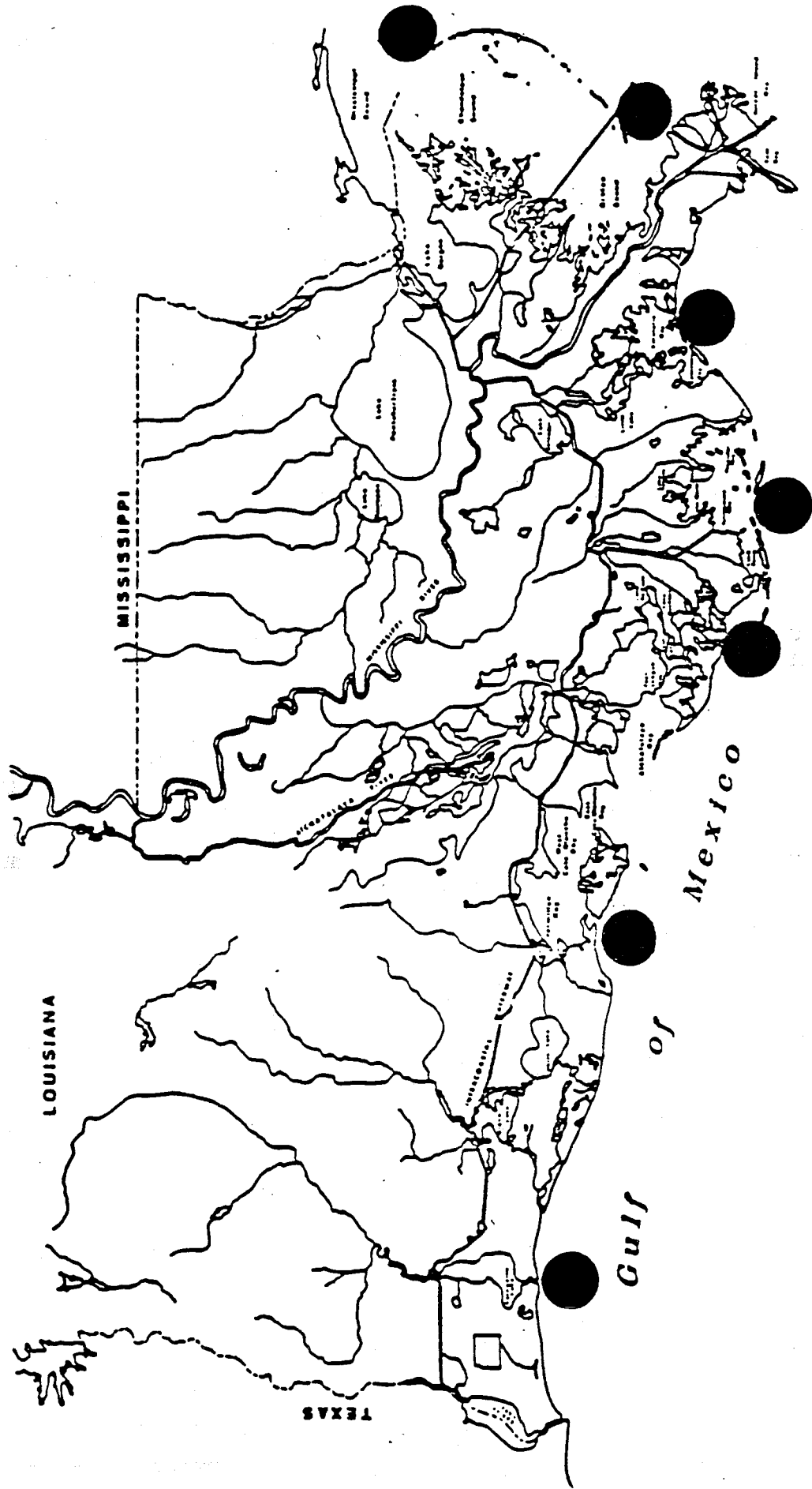


Figure 3. General Location of Territorial Sea Transects, 1988 Louisiana Seasonal Trawl Surveys.

## SPRING PLANKTON SURVEY

For the sixth season since 1982, plankton samples were collected during the spring in the northern Gulf of Mexico. The NOAA Ship OREGON II and Florida's R/V HERNAN CORTEZ II samples offshore waters from 24°-30°N. lat. and 84°-94° W. long. from April 19 to May 26, 1988. (Figure 4.) At irregular intervals during the survey, the NOAA vessel departed from the scheduled cruise track to run a series of stations across ocean fronts and other physical features. Time and location of these special stations were determined from satellite imagery processed by NMFS Mississippi Laboratories, NSTL facility. Samples taken at special frontal boundary stations consisted of bongo and neuston tows, chlorophyll and environmental data.

Plankton samples were taken with standard SEAMAP bongo and neuston samplers. The bongo sampler consisted of two conical 61-cm nets with 333 micron mesh. Tows were oblique, surface to near bottom (or 200 m) and back to surface. Wire angle was maintained at 45°. Neuston samples were taken with 947 micron mesh nets on 1 x 2 meter frames towed at the surface for ten minutes. All plankton samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation.

A total of 160 stations was sampled. The OREGON II occupied 143 stations and the R/V HERNAN CORTEZ II sampled 17 stations along the west Florida shelf. High seas prevented six planned samples from being taken by the Florida vessel.

Hydrographic data at all stations included surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom and fore-ule color.

Right bongo samples from SEAMAP stations will be transhipped by the NMFS Miami laboratory to the Polish Sorting Center (PSC) in Szczecin, Poland. Left bongo and neuston samples are currently archived at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi with neuston samples to be transhipped to the PSC at a later date. Samples from the special frontal boundary stations will be sorted at the Miami Laboratory. Salinity data from the Florida vessels were sent to the NMFS Pascagoula Laboratory for interpretation.



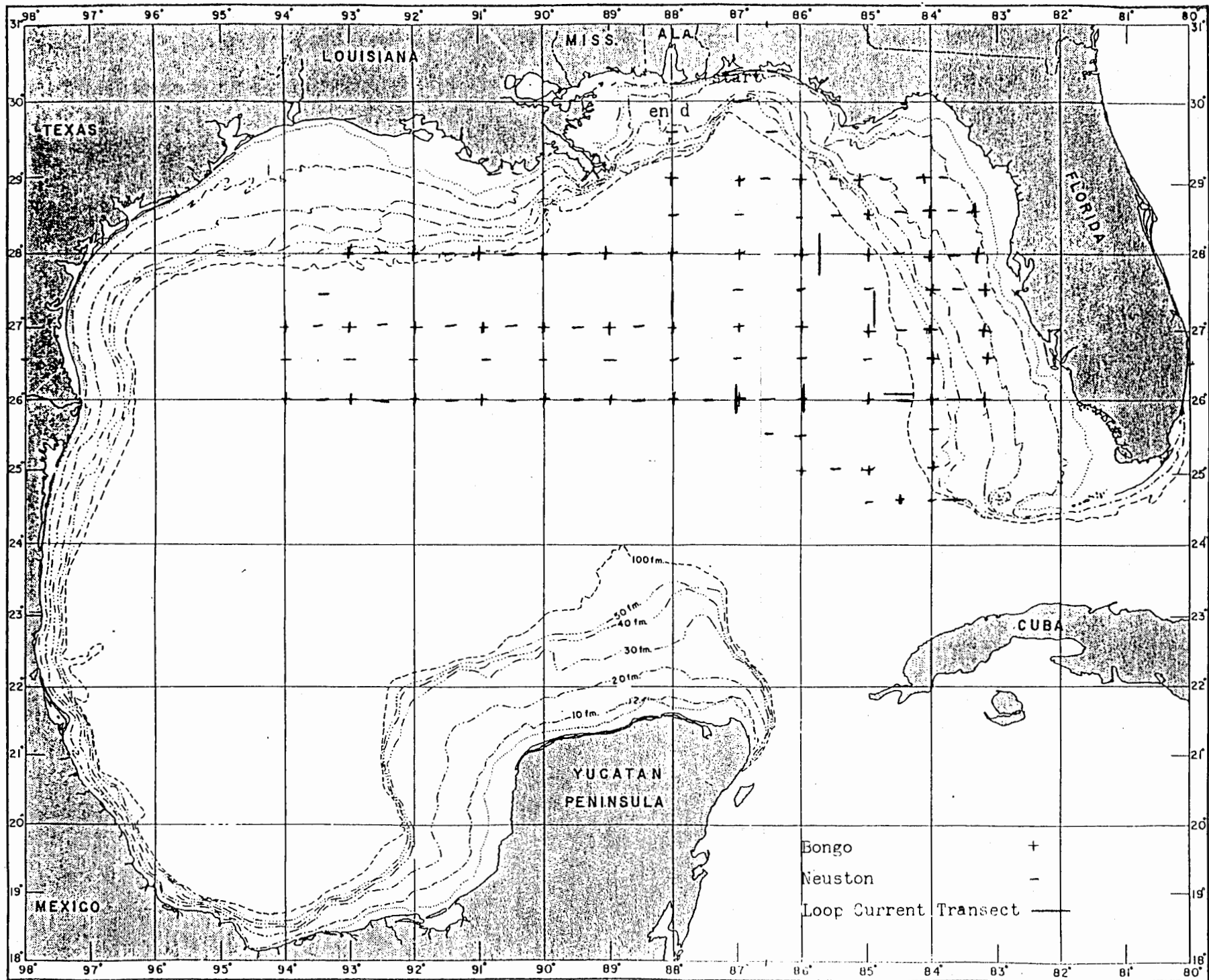


Figure 4. Survey Stations, 1988 Spring Plankton Survey

## SUMMER SHRIMP/GROUNDFISH TRAWL SURVEY

Design of the 1988 Summer Shrimp/Groundfish Trawl Survey was recommended by the Shrimp/Bottomfish Work Group to the SEAMAP Subcommittee following a work group conference call in March 1988. A planning meeting of the work group was held in April 1988 to examine random station locations for each participant. Objectives of the survey were to:

- (1) monitor size and distribution of penaeid shrimp during or prior to migration of brown shrimp from bays to the open Gulf;
- (2) aid in evaluating the "Texas Closure" management measure of the Gulf Council's Shrimp FMP; and
- (3) provide information on shrimp and bottomfish stocks across the northern Gulf of Mexico from inshore waters to 50 fm.

### SURVEY SUMMARY

The overall sampling strategy during the 1988 SEAMAP summer survey was to work from the eastern Gulf to the Texas/Mexico border, in order to sample during or prior to migration of brown shrimp from bays to the open Gulf area. The entire survey occurred from June 2 to July 14, 1988. SEAMAP sampling conducted east of the Mississippi River, from July 8 to July 12 re-surveyed eastern areas after emigration of brown shrimp from inshore waters. Sampling locations east and west of the Mississippi River Delta, by vessel, are shown in Figures 5-8 for the following dates: June sampling east of the river (June 11 to June 18), Gulf waters off Texas (June 2 to July 4), waters off Louisiana west of the River (July 5 to July 14), and Gulf waters east of the River (July 8 to July 12).

During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. An Alabama vessel sampled offshore Alabama waters with 16-ft trawls. The R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft nets, and Texas vessels sampled Texas state waters and offshore waters with 20-ft nets.

A total of 324 trawl samples was taken from coastal and offshore waters out to 50 fm from Perdido Bay, Alabama, to Brownsville, Texas. All vessels took environmental data, including temperature, salinity, oxygen, and chlorophyll at trawl stations.

In June catch rates of brown shrimp east of the River were extremely low, with a maximum catch of 4.0 lb/hr of 44 count shrimp. White shrimp catches east of the River were all less than 2.0 lb/hr. The largest pink shrimp catch rate east of the River was 12.0 lb/hr of 18-count shrimp in Gulf waters east of the Chandeleur Island chain. Other pink shrimp catches east of the River were 6.0 lb/hr or less. Finfish catch rates east of the River were generally low to moderate, with the largest catch on June 16 of 1,786 lb/hr of longspine porgy.

Low catches of brown shrimp were also made off Texas from June 2 to July 4. The largest catch rate occurred off the Laguna Madre north of Brownsville in 14 fm (131.0 lb/hr of 66-count shrimp). White shrimp catches off Texas were low with the largest catch, 5.0 lb/hr of 17-count shrimp, taken off San Antonio Bay in 7 fm. Catch rates for pink shrimp were generally very low off Texas; the largest catch was 8.0 lb/hr of 62-count shrimp east of Aransas Bay in 8 fm. Finfish catch rates were moderate to low, with croaker dominating the catch in Texas's inshore waters. The largest catch of finfish was 953.0 lb/hr off Aransas Pass with 325.0 lb/hr of spot predominating.

In samples west of the River (Louisiana) brown shrimp catches were low with the largest catch rate of 8.0 lb/hr of 34-count shrimp occurring southwest of Marsh Island in 9 fm. White shrimp catches were low, with a maximum catch rate of 9.6 lb/hr of 18-count shrimp taken in 5 fm southwest of Sabine Pass. Catches of pink shrimp were very low off the Louisiana coast with a maximum catch rate of 9.6 lb/hr of 22-count shrimp. Finfish catch rates were moderate with the largest catch rate of 717 lb/hr with Atlantic croaker predominating.

In July sampling east of the Mississippi River, brown shrimp catches were low with the highest rate of 3.9 lb/hr of 17-count shrimp taken east of the Chandeleur Island chain in 9 fm on July 8. Catches of white shrimp east of the River were below 2.0 lb/hr in all areas sampled. The highest pink shrimp catch rate east of the River of 7.6 lb/hr of 23-count shrimp taken south of Mobile Bay in 13 fm. Finfish catches rates were moderate with a minimum catch rate of 545.0 lb/hr reported in 25 fm south of Mobile Point, with 422.0 lb of longspine porgy predominant in the sample.

No extensive areas of hypoxia (less than 3 ppm oxygen) were found during the survey, but moderate areas of low oxygen were identified offshore Louisiana, from 4 to 12 fm in the area from 28°30' to 29°10' N. lat. and 89°40' to 90°40' W. long.

Figure 5  
1988 Summer Shrimp/Groundfish Survey Stations  
June 11 - June 18

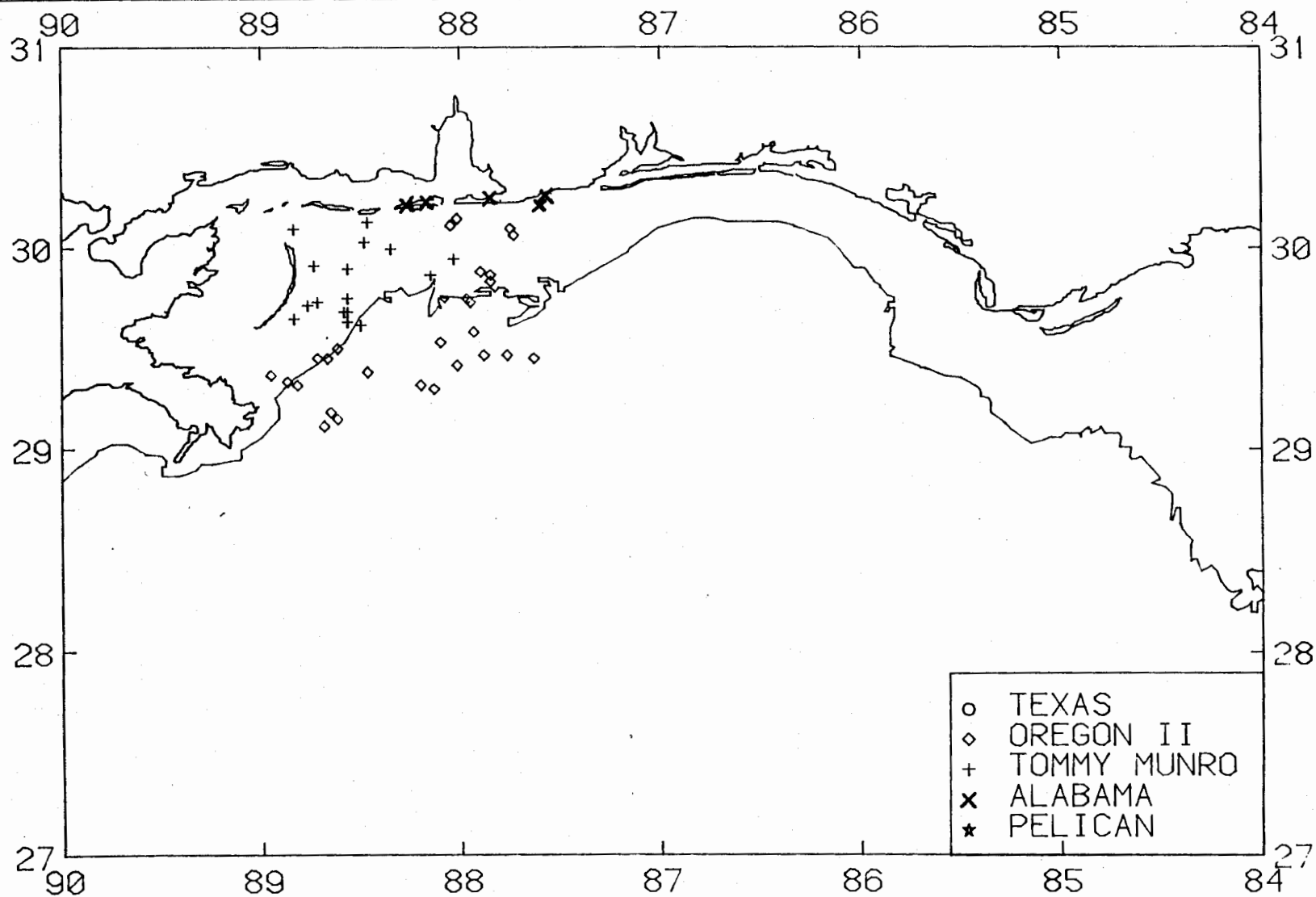


Figure 6  
1988 Summer Shrimp/Groundfish Survey Stations  
June 2 - July 4

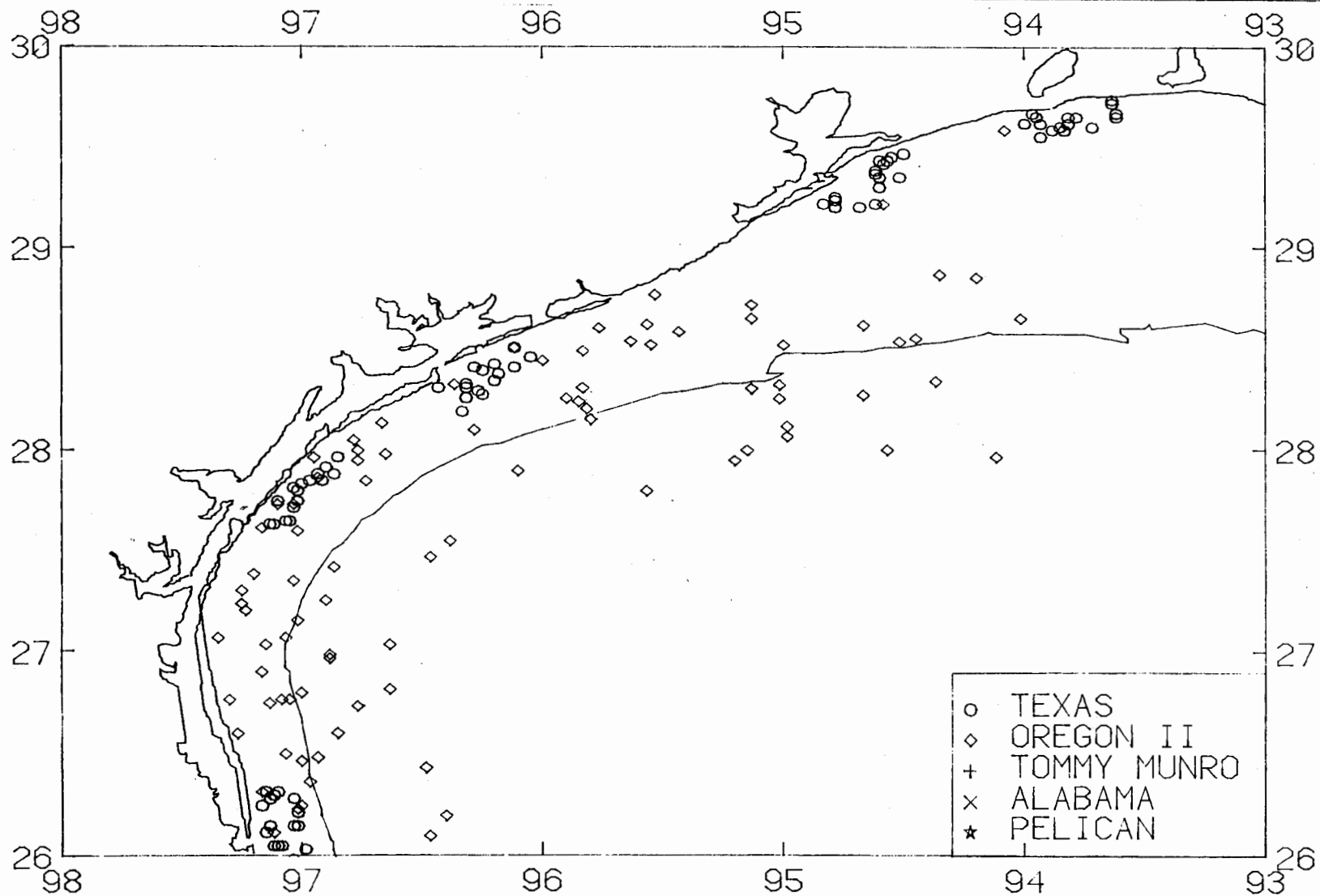


Figure 7  
1988 Summer Shrimp/Groundfish Survey Stations  
July 5 - July 14

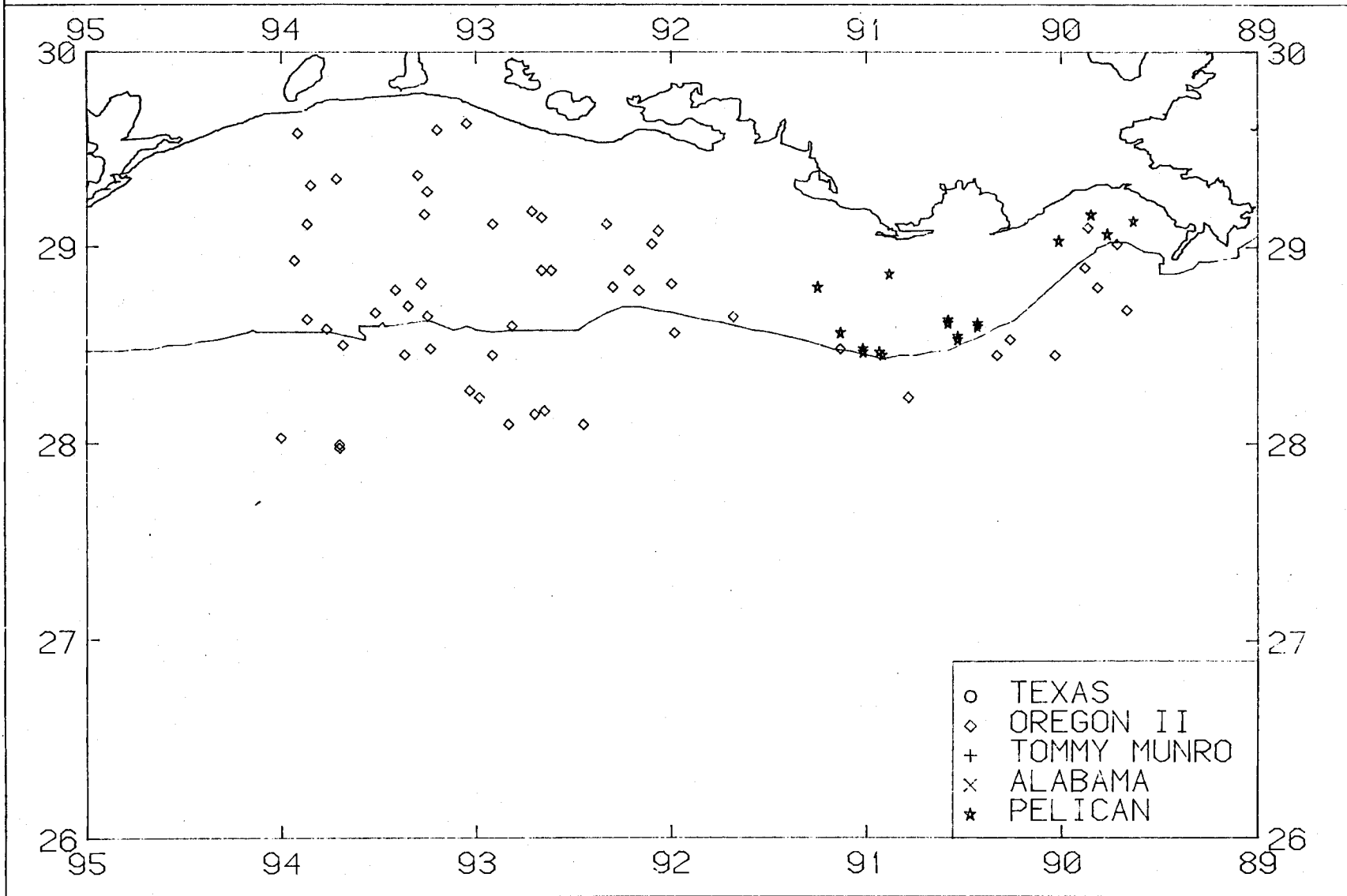
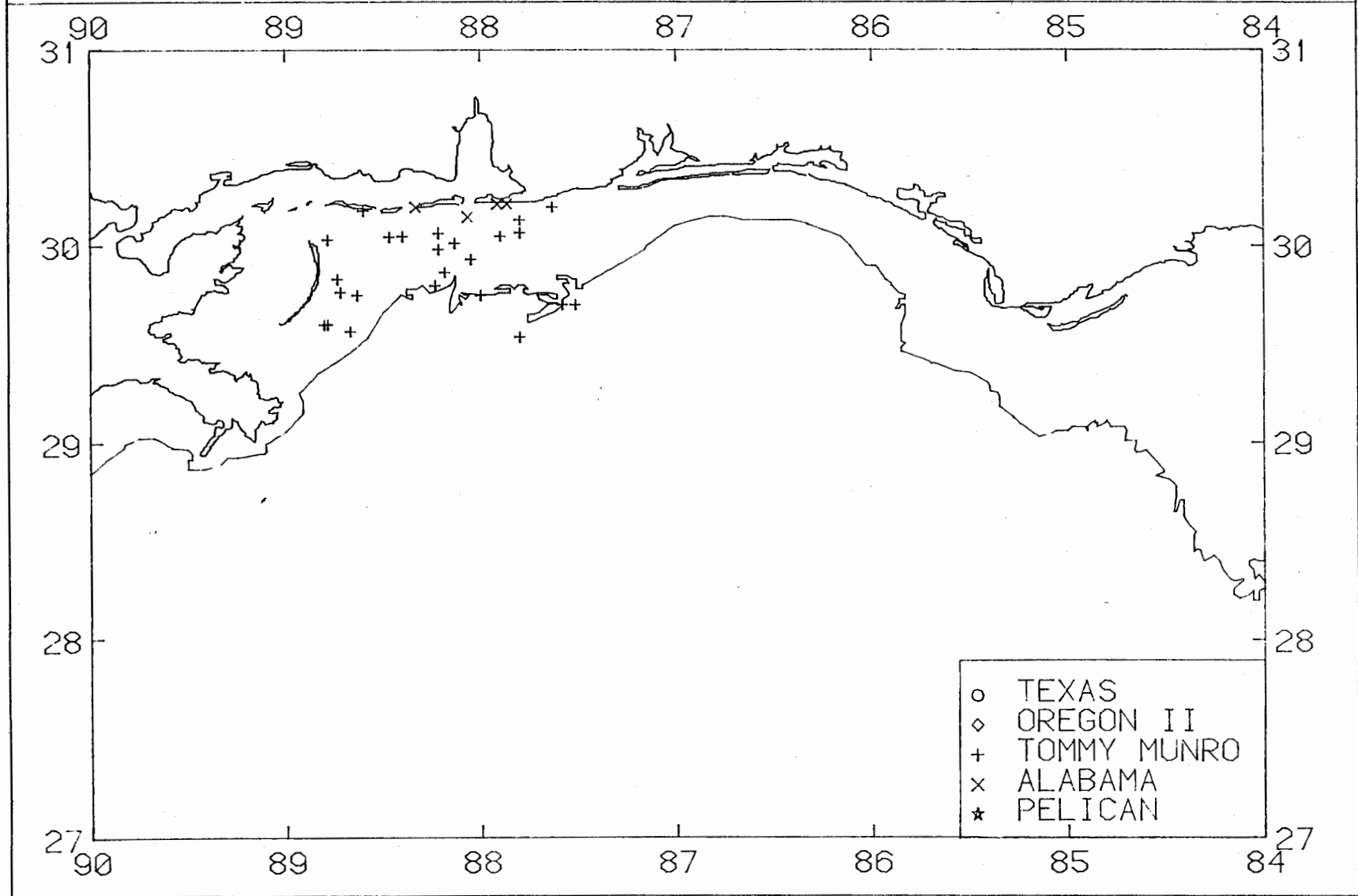


Figure 8  
1988 Summer Shrimp/Groundfish Survey Stations  
July 8 - July 12



## FALL PLANKTON SURVEY

The first fall ichthyoplankton survey to assess abundance and distribution of king mackerel eggs and larvae occurred in August 1984. No sampling survey was conducted in 1985; however expanded surveys in 1986, 1987 and in the current year covered Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi, Louisiana and from NMFS surveyed from August 26 through October 12, 1988 for a total of 156 stations (Figure 9).

The NOAA Ship OREGON II sampled 80 stations from 83°00' to 97°00' W. long. and 26°00' to 30°30' N. lat., at depths from 5 to 100 fm. Weather and seas associated with hurricanes Florence and Gilbert in the Gulf curtailed sampling at 16 scheduled stations. Chlorophyll samples were filtered at each station. Florida's R/V HERNAN CORTEZ II sampled 36 stations from off Tampa Bay southward to the Florida Straits. Stations were located along a 30-minute latitude/longitude grid from inshore waters to the shelf edge. An Alabama vessel sampled 10 stations at the mouth and outside Mobile Bay. The R/V TOMMY MUNRO sampled 6 stations south of Mississippi Sound along a 30-minute grid, and the R/V PELICAN sampled 12 stations off Louisiana, taking 24 samples with a .5 m ring net.

Stations were sampled with standard SEAMAP bongo nets with 333 micron mesh and/or 1 x 2 meter neuston nets fitted with 947 micron mesh. Hydrographic sampling included chlorophylls, salinity, temperature and dissolved oxygen from surface, mid-water, and bottom, water transparency and water color. Right bongo samples will be transhipped by the NMFS Miami Laboratory to the Polish Sorting Center; left bongo and neuston samples will be stored at the SEAMAP Invertebrate Archiving Center at the Gulf Coast Research Laboratory for possible future sorting. Louisiana plankton samples will be sorted by LDWF according to SEAMAP protocols and specimens and data provided to the SEAMAP Archiving Center.



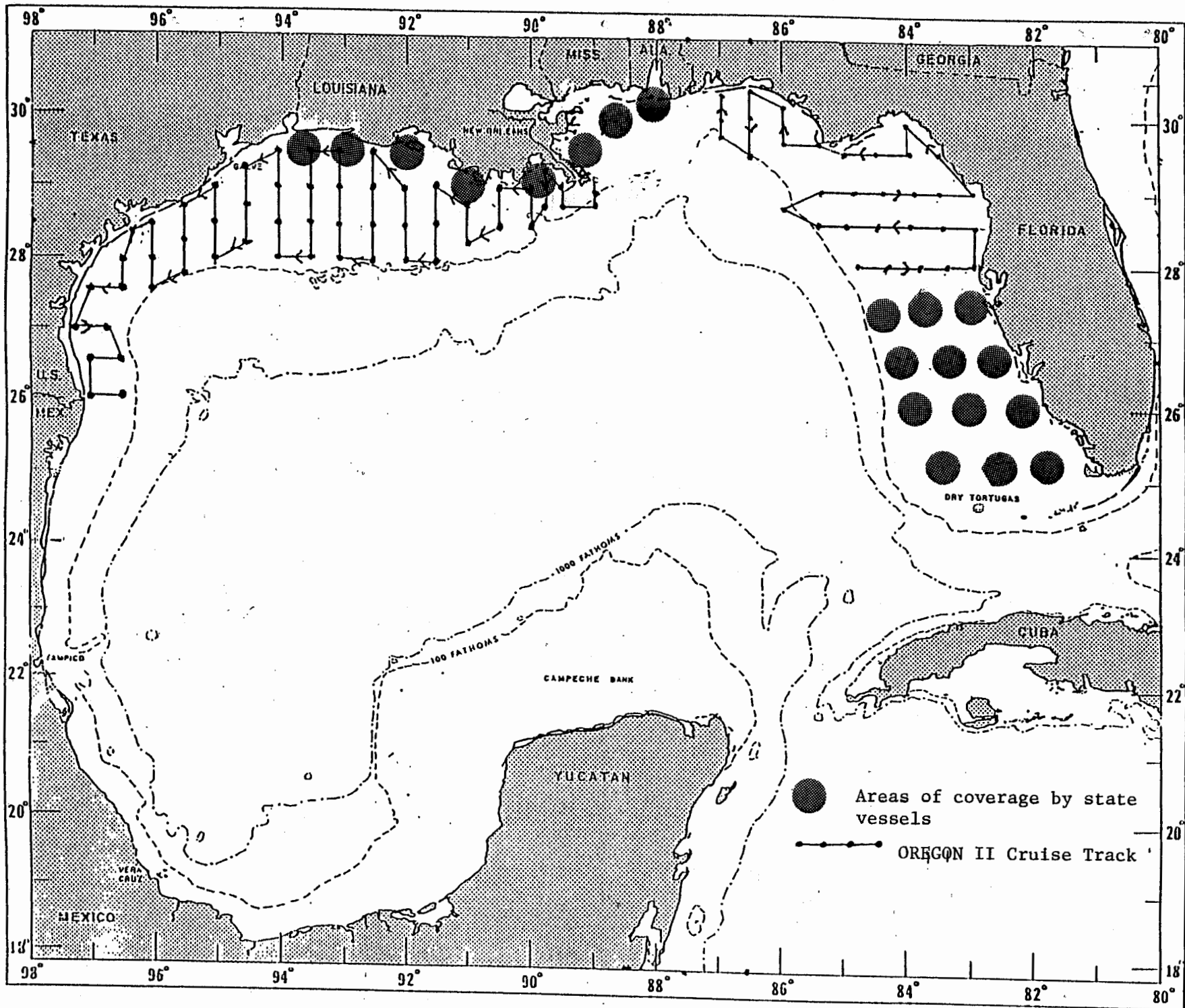


Figure 9. Fall Plankton Survey

## PLANKTON AND ENVIRONMENTAL DATA SURVEYS

As in previous years, plankton samples and environmental data were collected routinely during most SEAMAP trawling surveys. During the Summer Shrimp/Groundfish Survey, 46 plankton tows were piggybacked on the NMFS and state vessels, sampling randomly-generated stations within the standard 30-min SEAMAP grids. Plankton and environmental data were also taken by Louisiana at all of its Seasonal Day/Night Survey stations. Samples were taken by participants with a 60-cm bongo net and a standard NMFS neuston net. Louisiana sampled with a 0.5 m ring net beginning with the July Seasonal Survey.

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

Samples from the right side of the bongo tows were shipped to the NMFS-Miami Laboratory for transshipment to Poland, where they will be sorted to the family level (both ichthyoplankton and selected crustacean and molluscan species). The other sample from each station is retained as a back-up in the event of damage or loss of the specimens sent to Poland, and maintained at the Gulf Coast Research Laboratory.

Chlorophyll samples were filtered at each station using GF/C filters. All filters were put in petri disks and wrapped in foil for onboard storage in the freezer. Chlorophyll analysis will be completed ashore. Preservation of plankton samples was in buffered Formalin prior to transfer to ethanol.

In addition to these piggybacked surveys, two major SEAMAP plankton surveys were conducted in 1988, detailed earlier.

**1988 SEAMAP SPECIAL PROJECTS**

## *STATUS AND TRENDS BENTHIC SURVEILLANCE PROJECT*

For the fifth year, the SEAMAP Program actively participated in the nationwide sampling for contaminants in coastal fishes and sediments, as part of the NOAA National Status and Trends Benthic Surveillance Project. Both SEAMAP Gulf of Mexico and South Atlantic supplied personnel from state fishery management agencies to provide guidance in locating concentrations of the target species, Atlantic croaker and spot. Sampling sites for the Gulf are shown in Figure 10.

### SURVEY SUMMARY

Sampling methodologies in the 1988 Benthic Surveillance Project were identical to those of the three previous surveys; Gulf sites included Charlotte Harbor, Apalachicola Bay, Mobile Bay, Heron Bay, Galveston Bay, San Antonio Bay, Lower Laguna Madre, Lavaca Bay (new) and Corpus Christi Bay.

Sampling in the Gulf of Mexico was conducted from August 18 to October 7, 1988 with the NOAA Ship FERREL serving as the primary platform. Analyses of trace metals, aromatic and chlorinated hydrocarbons and other contaminants in fish tissues and sediments are coordinated by the NMFS Beaufort Laboratory. While in previous surveys the Oxford Laboratory and Charleston Laboratory performed histopathological studies on collected spot and croaker from the Gulf, samples from the 1988 survey will be analyzed at the NMFS Northwest Fisheries Center in Seattle.

Many of the sites are large, complex estuarine systems with a variety of microenvironments which may vary from relatively pristine to heavily impacted. This within-site variability led to an intensive examination in Galveston Bay during the 1988 survey. Galveston Bay was selected for (1) an abundance of target fish, Atlantic croaker and spot; (2) a complex bay system with a number of sites with man-made impacts; (3) a site where relatively strong metal and organic signals were obtained from 1984 samples; and (4) a major maritime population center with industrial, shipping and fishing activities. A total of five subsites were selected in the Galveston Bay system with fish and sediment samples collected at each.

An interpretive report for project years 1984-1985 is under preparation by the NMFS Beaufort Laboratory, and will be available for distribution in December 1988.

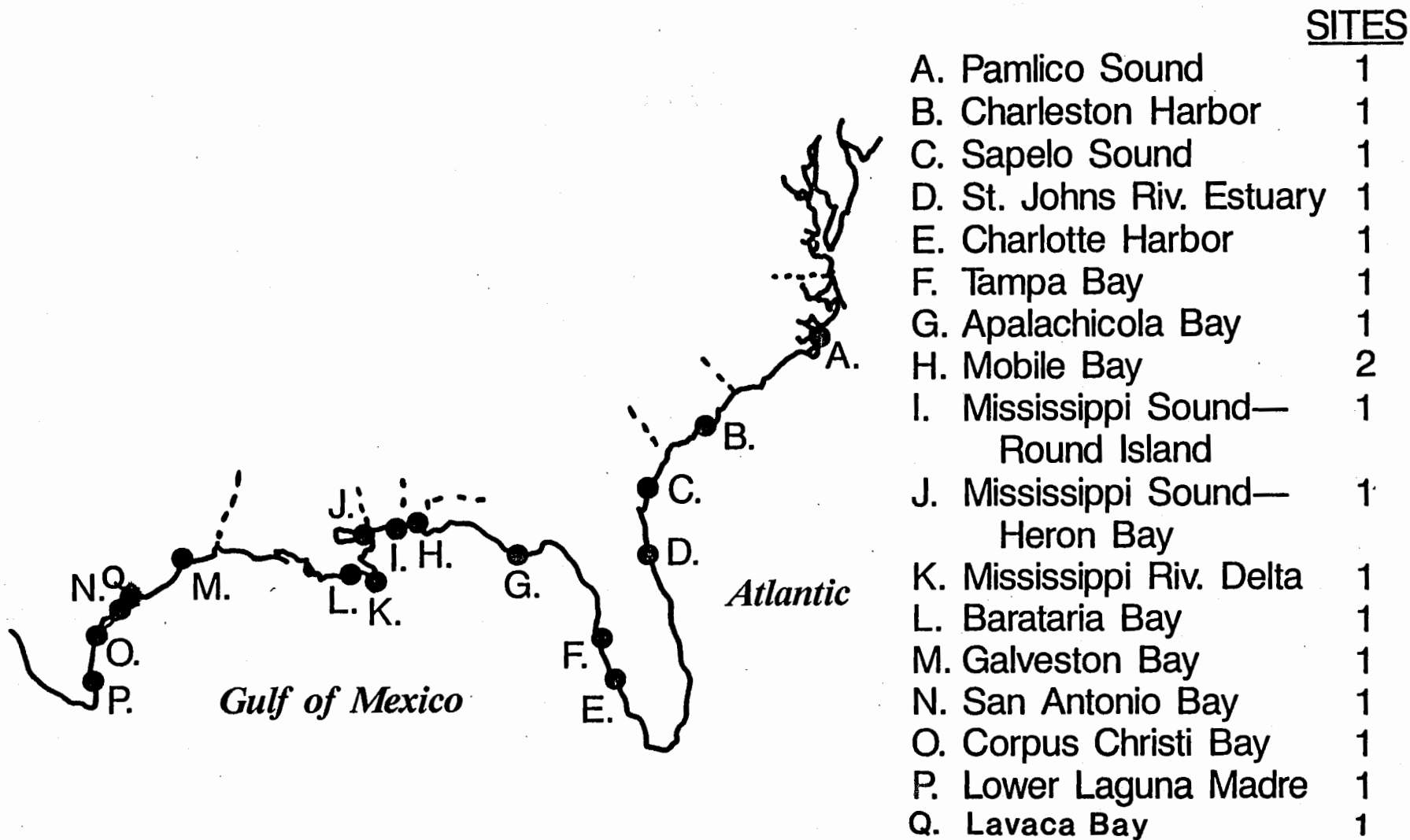


Figure 10. 1988 Status and Trends Benthic Surveillance Project Sampling Sites in the Gulf of Mexico

## PROGRAM REVIEW

A major FY1987 event in SEAMAP was the Program Review, a comprehensive external evaluation of the program relative to goals and objectives outlined in the two Operations Plans. The review was endorsed by both programs at the March joint meeting, and a preliminary work plan developed to define review objectives, events and schedules. Subsequent to modifications by the Committee and Subcommittee, a final project plan was approved and a four-member Review Panel designated to conduct the activity. The panel members, distinguished leaders in science program management and evaluation were: Dr. Howard Clonts, Auburn University (Panel Chairman); Mr. William G. Gordon, Executive Vice-Chairman of the New Jersey Marine Science Consortium, and former NOAA Assistant Administrator for Fisheries; Mr. Robert Shepard, Associate Director, National Sea Grant College Program; and Mr. Richard C. Hennemuth, Chief of Research Planning, NMFS Northeast Fisheries Center.

The Panel met with each of the two program sections, assisted by the program coordinators and resource personnel from the Gulf of Mexico Fishery Management Council, NMFS Southeast Regional Office, and program associates, to examine functions, components, procedures, policies and events of SEAMAP administrative and operational aspects. The overall review mission was to provide specific recommendations on which organizational and functional aspects of the program should be maintained or modified to ensure efficient achievement of program goals and objectives.

Progress of the review was reported at the joint August SEAMAP meeting, with a preliminary report of findings to be prepared for program participants' review in October. A draft of findings and recommendations was presented at the October 1987 Gulf States Marine Fisheries Commissions meeting in Key West and the report distributed in December 1987. Program Review structure and the Panel's recommendations are found in Appendix I. At the Joint SEAMAP Gulf and South Atlantic meeting in January 1988, recommendations were accepted or rejected by consensus (see minutes, Joint SEAMAP Meeting, January 20-21, 1988, Appendix II).

**INFORMATION SERVICES**

## INFORMATION SERVICES

Information from SEAMAP activities is provided to user groups through the program administration and three complementary systems: the SEAMAP Information System (SIS), SEAMAP Archiving Center, for ichthyoplankton (SAC), and SEAMAP Invertebrate Plankton Archiving Center (SIPAC). Products resulting from SEAMAP activities can be grouped into two major categories, data sets (including, broadly, digital data and collected specimens) managed by SIS, SAC and SIPAC, and program information. Program information is discussed in the Program Management section of this report.

### SEAMAP INFORMATION SYSTEM

Biological and environmental data from all SEAMAP surveys are included in the SEAMAP Information System, managed in conjunction with NMFS/SEFC. Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. With final verification of environmental data complete for 1985, all SEAMAP surveys in 1982 through 1985 have been entered into the system. Data from 1986 and 1987 surveys are in the process of being verified, while data entry and edit continues for 1988 surveys. Verified, non-confidential SEAMAP data are available conditionally to all requestors, although the highest priority is assigned to SEAMAP participants. A total of 73 requests have been received to date. Seventy-one have been completed and work is being performed on the remaining requests.

Requested SEAMAP data were used for a multitude of purposes:

- Evaluating the abundance and size distribution of penaeid shrimp in Federal and state waters to assist in determining opening and closing dates for commercial fisheries.
- Assessing shrimp and groundfish abundance and distribution and their relationship to such environmental parameters as temperature, salinity and oxygen.
- Identifying environmental parameters associated with concentrations of larval finfish.
- Compiling the 1983, 1984, 1985, and 1986 SEAMAP Biological and Environmental atlases.
- Comparing catches of shrimp and groundfish captured by 40-ft versus 20-ft trawl nets.
- Compiling the 1984 and SEAMAP Ichthyoplankton Atlas.
- Identifying optimized gear for squid and butterfish.



## DATA MANAGEMENT

Biological and environmental data from all SEAMAP surveys are included in the SEAMAP Information System, managed in conjunction with NMFS-SEFC. Raw data are edited by the collecting agency and verified by the SEAMAP Data Manager prior to entry into the system. Data from all SEAMAP surveys in 1982 through 1987 have been entered into the system and data from 1988 surveys are in the process of being verified, edited and entered for storage and retrieval.

Verified, non-confidential SEAMAP data are available conditionally to all requestors, although the highest priority is assigned to SEAMAP participants. During 1987, more than 12 requests were received and processed. In some instances, requests were filled promptly; in many cases, however, a substantial lag occurred because of the extremely large amount of data being collected on an increased number of surveys over those of past years.

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

The distributive processing SEAMAP Data Management System development is progressing on schedule. Approximately 42% of the total system estimated cost of \$508.5K has been committed to contracts. About 5% of the system hardware is still on order. Progress has been made in converting the field data sheets to metric units as directed by the SEAMAP Subcommittee. Revised data acquisition forms are scheduled for field use for 1989 SEAMAP surveys.

A centralized data management system is presently being used by NMFS for SEAMAP-Gulf Program. This system operates on a Burroughs 7811 computer located in Seattle, Washington, and depends on skilled programmers and computer operators for data entry, retrieval and display. SEAMAP participants submit their data to the SEAMAP Data Manager for system entry, who then assures the entry of data to the Burroughs. To verify the data, printed listings of newly entered data are produced and returned to the SEAMAP participant. Entry errors are corrected on the listing and the data are resubmitted. This mail-oriented loop iterates until all data are verified.

To retrieve data, SEAMAP participants must submit a Data Request and Use Agreement Form to the Data Manager. The Data Manager approves the request, and ensures the data are retrieved from the system by skilled programmers.

Outside users (e.g., Minerals Management Service, U.S. Army Corps of Engineers, etc.) may request listing of particular data sets. The information provided is used for efforts such as environmental impact statements, life histories studies, oceanographic process research, and long-term ecological trends strategy evaluation. Outside users, like the SEAMAP participants, submit the request to the SEAMAP Subcommittee through the SEAMAP-Gulf Coordinator for approval to proceed. Once the request is approved, information is provided by the Data Manager and staff members through a priority based, mail-oriented system.

The proposed system is decentralized, i.e., distributed. Thus, the SEAMAP users will be able to locally, and directly, enter and retrieve data.

This proposed system will overcome the deficiencies of the current system (i.e., the time necessary to enter and retrieve data) and will provide powerful and flexible local data analysis and display capabilities. Under the proposed system, each SEAMAP site will enter, verify and edit their data, eliminating the mail-oriented loop necessary to enter/edit/verify data under the current system. Secondly, each site will have the capability of locally accessing SEAMAP data, utilizing a user-friendly system. Local data retrieval will allow the data to be accessed in a timely manner with a minimum amount of effort and programming skills.

Under the proposed system, outside users may continue to request special data sets for research or study. Also, SEAMAP participants may use the Special Request mechanism for data sets too large for economical downloading by telephone. These requests will be handled by a Central Operations staff in the same priority based, mail-oriented manner as noted above.

## *REAL-TIME DATA*

A major function of the SEAMAP Information System in 1988 was the processing of catch data from the Summer Shrimp/Groundfish Survey as near-real-time data. Data were transmitted daily via satellite to the NMFS/NSTL facility from the NOAA vessel, while the states' data were entered into the system weekly. Plots of station locations and catch rates of shrimp, squid and dominant finfish species were prepared and edited at the NMFS Pascagoula Laboratory, and processed by GSMFC for weekly distribution to management agencies, fishermen, processors and researchers. Management agencies also received comprehensive data listings showing penaeid shrimp length-frequencies, sampling parameters and environmental conditions. Representative listings are shown in Figures 11-18.

Figure 11

## Real-Time Data Listing, 1988 Shrimp/Bottomfish Survey

100  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 EN10 6/14/88 30-07.6 88-03.8 00 10 25.3 24.5 4.9 ST 18 1 1.7 55 0 28 1 0 000 0

200  
 SPECIES:PINK WEIGHT: 1.7 NUMBER: 40 MODE: 0/ 0  
 LEN(MM)/FREQ. 100/ 1 110/ 3 120/ 11 130/ 9 140/ 5 150/ 5 160/ 1 170/ 4 180/ 1

300  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 EN07 6/14/88 30-09.5 88-01.6 02 7 25.2 25.3 6.7 ST 10 1 0.6 13 1 5 1 0 071 15

400  
 SPECIES:BROWN WEIGHT: 0.1 NUMBER: 1 MODE:139/ 1  
 LEN(MM)/FREQ. 130/ 1

500  
 SPECIES:WHITE WEIGHT: 0.2 NUMBER: 2 MODE: 0/ 0  
 LEN(MM)/FREQ. 150/ 1 160/ 1

600  
 SPECIES:PINK WEIGHT: 0.3 NUMBER: 7 MODE: 0/ 0  
 LEN(MM)/FREQ. 120/ 2 130/ 1 140/ 3

700  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 EN09 6/14/88 30-06.6 87-45.9 05 9 25.1 25.1 6.6 ST 31 1 0.0 7 0 1 0 0 045 3

800  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 ED10 6/14/88 30-04.4 87-44.0 08 10 25.0 25.0 6.5 ST 16 1 0.0 4 0 0 0 0 045 3

900  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 ED17 6/14/88 29-53.3 87-54.3 15 17 25.1 19.7 6.8 ST 21 1 0.0 5 0 0 0 0 070 4

1000  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 ED16 6/14/88 29-52.7 87-51.6 16 16 25.2 20.0 7.9 ST 10 1 0.0 9 0 0 0 0 109 6

1100  
 DEP TEMPS,C CHLOR GEAR MIN  
 PLAT STATION DATE LAT LONG TIME FMS SUR BOT MG/M3 BDO TYPE FISH TOWS SHRIMP FINFISH CRK SPT TRT CAT OTHER LBS  
 1 EN17 6/14/88 29-50.6 87-51.5 21 17 23.4 20.1 5.8 ST 28 1 0.0 46 0 0 0 0 060 10

Figure 12

Real-Time Catch Plots, 1988

AVERAGE BROWN SHRIMP CATCH IN POUNDS/HOUR

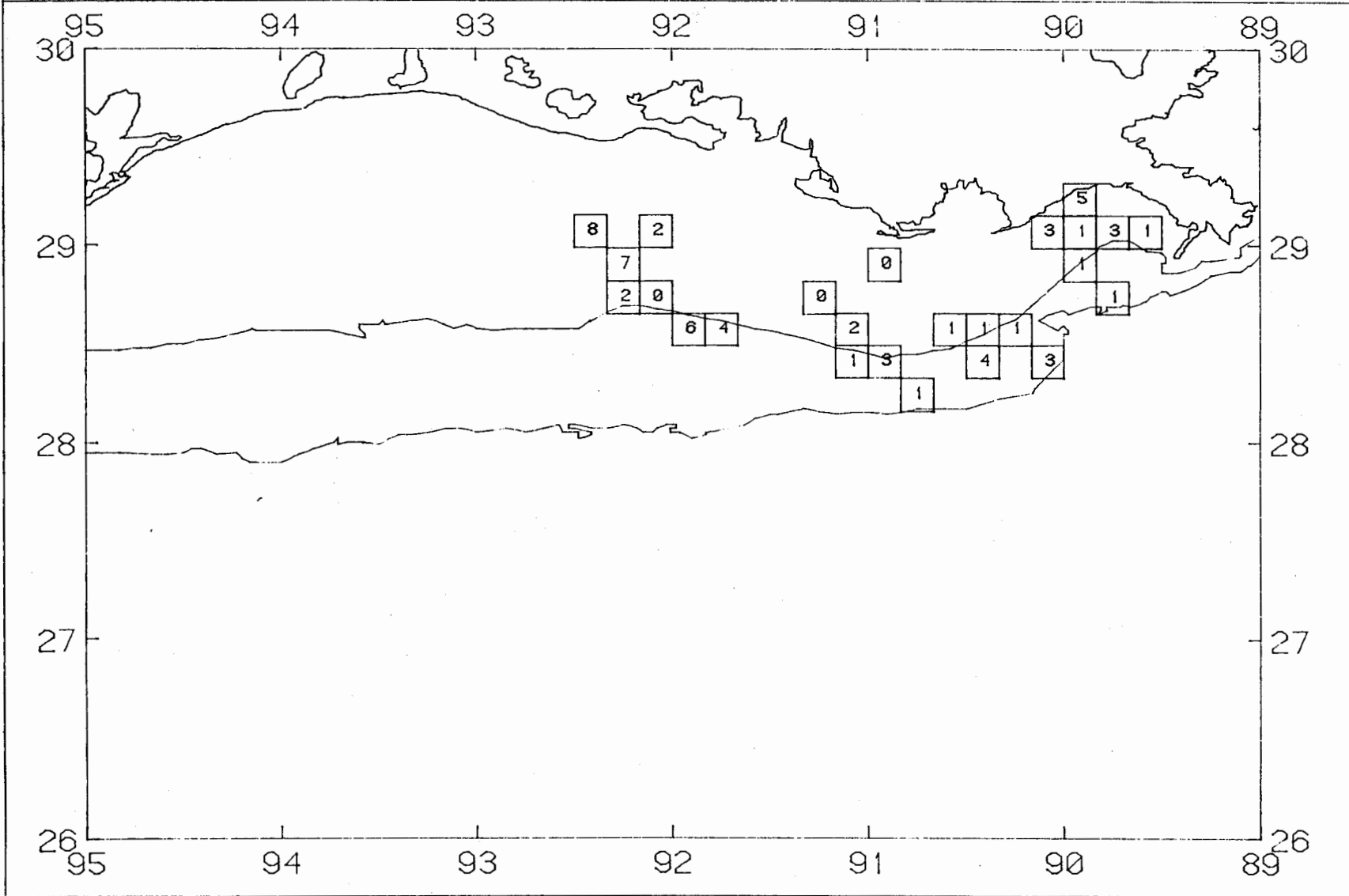


Figure 13

Real-Time Data Catch Plots, 1988

AVERAGE BROWN SHRIMP COUNT PER POUND

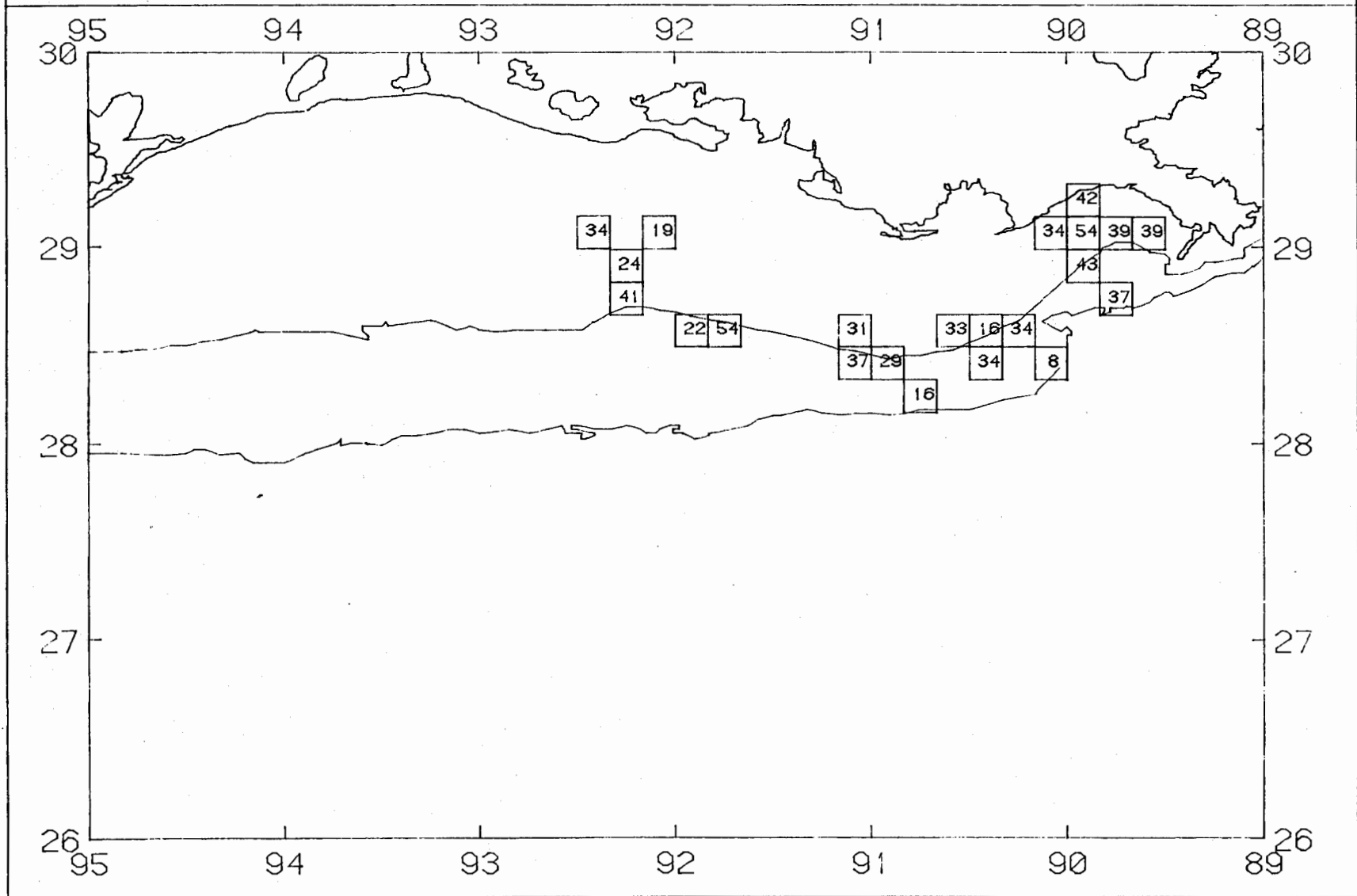




Figure 15  
Real-Time Data Catch Plots, 1988  
AVERAGE WHITE SHRIMP COUNT PER POUND

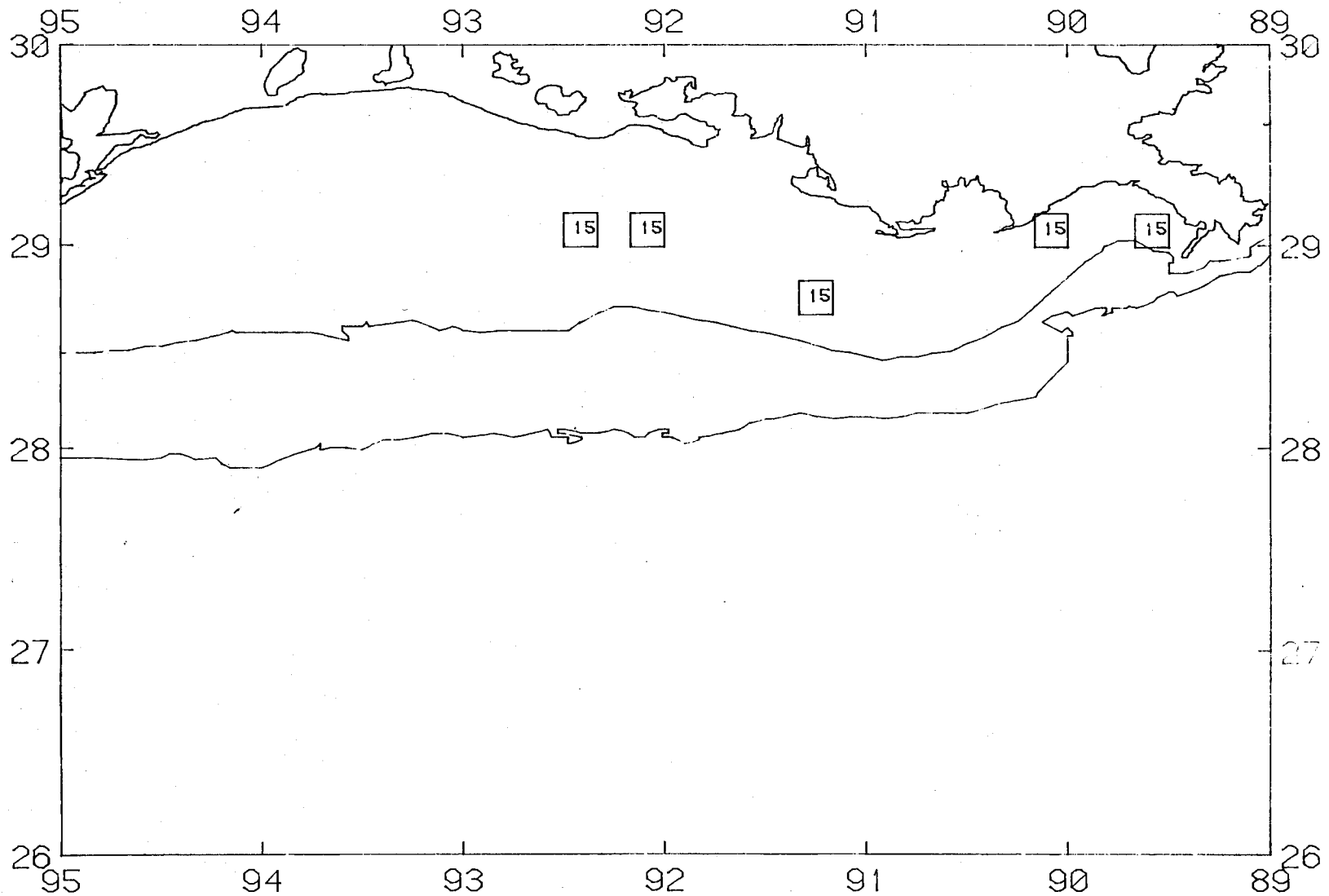




Figure 16  
Real-Time Data Catch Plots, 1988

AVERAGE PINK SHRIMP CATCH IN POUNDS/HOUR

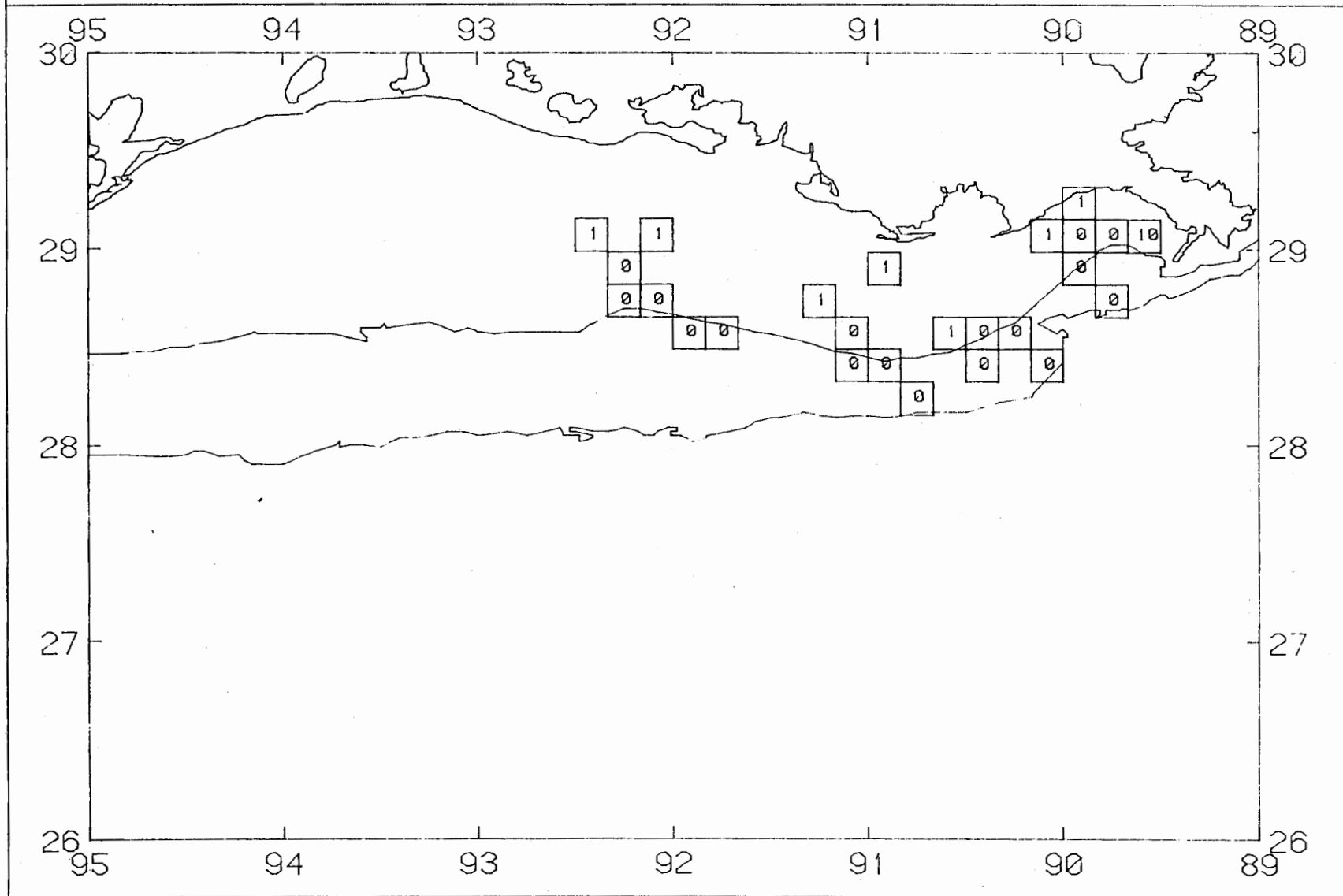


Figure 17  
Real-Time Data Catch Plots, 1988  
AVERAGE PINK SHRIMP COUNT PER POUND

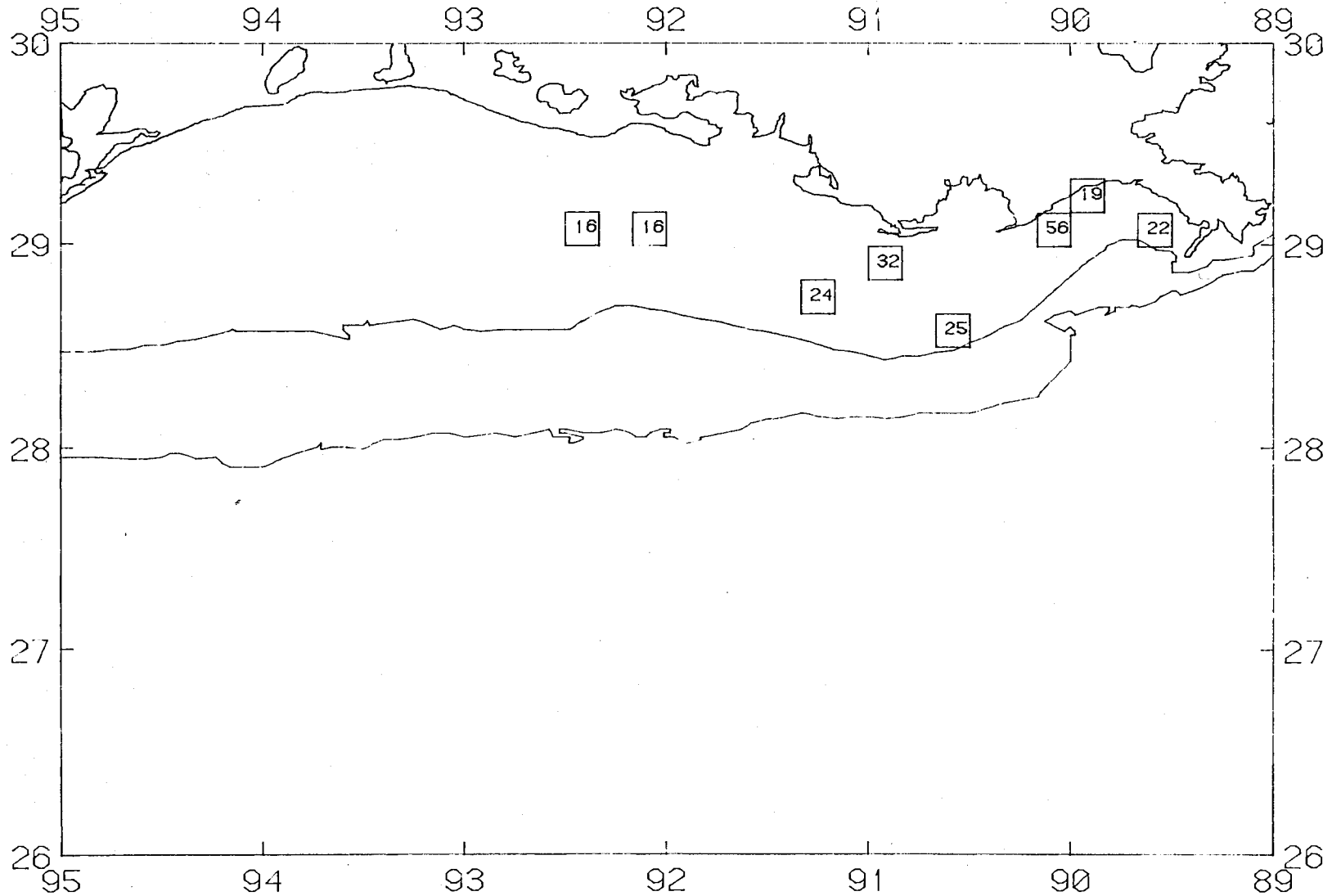
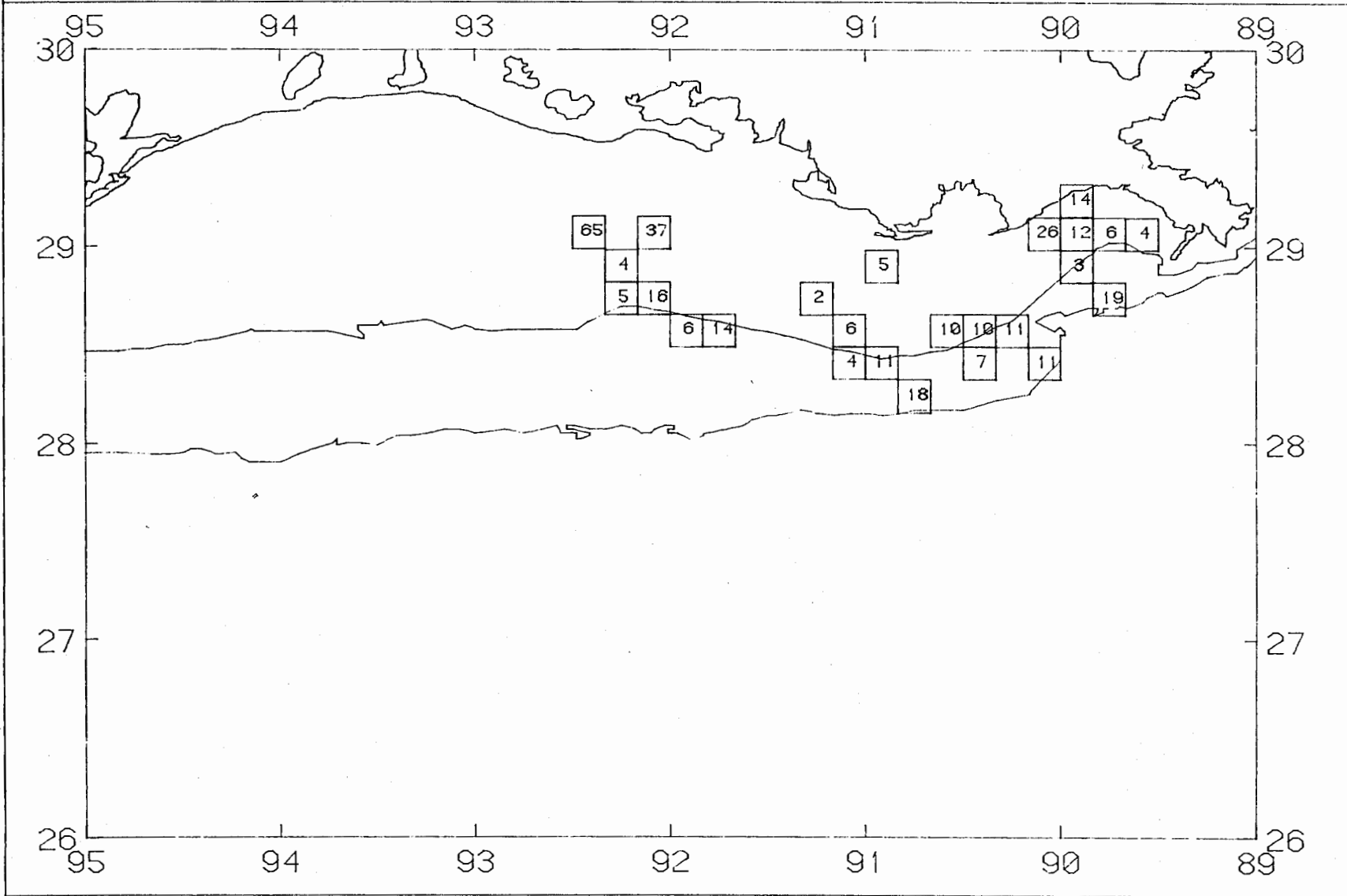


Figure 18

Real-Time Data Catch Plots, 1988

AVERAGE FINFISH CATCH IN POUNDS/HOUR/10



## RED DRUM STUDIES

In response to the rapidly growing red drum fishery, and the urgent need for scientific information on the size and identification of the offshore Gulf red drum resource, as well as the species' age/growth and migration patterns, the Gulf Subcommittee in May 1986 charged the Red Drum Work Group with developing a plan to provide this information. Scientists from the entire region collaborated to produce in June the State-Federal Cooperative Program for Red Drum Research in the Gulf of Mexico: A Three-Year Plan, a cost-effective program designed specifically to address these questions. Many of the projects in the plan, funded through the cooperative, State-Federal Marine Fisheries Initiative (MARFIN), were implemented immediately, and have yielded valuable data on age and growth, and stock size. Overall reporting of the cooperative program's results and progress, and program planning and evaluation are being managed through the SEAMAP-Gulf Program.

The first program review was planned to coincide with formal implementation of the cooperative program. A Fall Conference in October 1986 at the Fall GSMFC Meeting in New Orleans, featured presentation on project objectives and preliminary research results by all participants in the Cooperative program. SCIAENOPS, the newsletter of the cooperative program, was developed and sent to more than 550 interested persons. Subsequent issues of SCIAENOPS have been mailed to approximately 360 individuals. Conferences on Status Reports of Red Drum Research Projects were held during the Spring GSMFC meeting in March 1987 and March 1988. Participants from state agencies, universities and NMFS presented updates on their research projects, reviewing areas of stock identification, age and growth, stock assessment and fishery-independent assessment techniques.

Cooperators in the State-Federal Research Program also presented preliminary results of the first two years' research efforts at the MARFIN Principal Investigators Forum, held September 19-20, 1988.

## SEAMAP ARCHIVING CENTER

Larval fish and fish egg samples sorted to the family level by the Polish Sorting Center (PSC) are returned to the SEAMAP Archiving Center (SAC) for archiving and loan to researchers. Data entry for most of the returned sorted samples is completed in an improved and simplified information management system. All data are now managed by a dual microcomputer/mainframe program which eliminates coding errors and facilitates faster data entry. Comprehensive data listings are now available for survey specimens from 1982-1985, consisting of approximately 31,774 specimen lots, as well as many fish eggs and unsorted fish larvae. Samples cataloged to date represent 19 orders, 124 families, and 293 generic or species level taxa.

The Center is managed in conjunction with FDNR in St. Petersburg, and processes both specimen loans and requests for associated plankton survey environmental data; merging of these files within the SEAMAP Information System will greatly facilitate managing the environmental data, presently a cumbersome manual procedure. Plans call for 700 SEAMAP samples (+ 25% quality control) to be sorted for ichthyoplankton during the PSC contract period of September 1988 through August 1989. Priorities for sorting these samples from the backlog at PSC have been determined. Beginning in the fall of 1987 plankton samples taken by Louisiana vessels will be sorted by LDWF. All specimens and data will be provided to the SEAMAP Archiving Center.

Loan of SEAMAP specimens, and development of the system and its protocols, are supervised by SAC's curator, following policies outlined in the SEAMAP-Gulf Operations Plan. More than 3,100 specimen lots of fish larvae have been loaned, most of them species of commercial and recreational importance: mackerels, snappers, tunas, butterfish, bluefish, red drum, jacks, herrings, grunts and others. With the complete accessioning of 1986 samples, the catalogue is expected to contain approximately 40,000 lots, a collection of significant size. Plans are underway to expand professional awareness of the SEAMAP collection and facilities.

## SEAMAP INVERTEBRATE PLANKTON ARCHIVING CENTER

With the determination in 1985 by SEAMAP-Gulf that the retained "back-up" bongo collections also contain valuable research materials, the SEAMAP Invertebrate Plankton Archiving Center (SIPAC) was established, managed in conjunction with Gulf Coast Research Laboratory in Biloxi, Mississippi.

Through August 1988 a total of 3,075 unsorted SEAMAP bongo and neuston samples have been catalogued and archived at the SIPAC. Additional shipments of approximately 600 samples have been received from current surveys and are presently being catalogued. To date, 191 samples from 1984 cruises have been sorted for invertebrates at the PSC, using established protocols, and returned to SIPAC. A total of 600 vials of specimens and data sheets are currently being catalogued. An additional 191 plankton samples have been sorted by SIPAC personnel at GCRL.

Neuston samples from OREGON II Cruises 169 and 862 have been loaned to the NMFS Panama City Laboratory in support of mackerel investigations.

**PROGRAM MANAGEMENT**





## *PROGRAM MANAGEMENT*

The SEAMAP Program is administered by the SEAMAP Subcommittee of the Technical Coordinating Committee through the SEAMAP Coordinator, who is under the technical direction of the Subcommittee Chairman and administrative supervision of the Gulf States Marine Fisheries Commission's Executive Director.

Personnel associated with program management include the Coordinator, SEAMAP Data Manager, SEAMAP Archiving Center Curator, SEAMAP Invertebrate Plankton Archiving Center Curator, and the NMFS-SEFC Mississippi Laboratories Director, serving as Contracting Office Technical Representative.

SEAMAP management activities are designated in this report as either Administration or Information Dissemination.

## *ADMINISTRATION*

### *PLANNING*

Major SEAMAP-Gulf Subcommittee meetings were held in October 1987 and March 1988, in conjunction with the Annual Fall and Spring Meetings of the Gulf States Marine Fisheries Commission (GSMFC). Resource survey planning meetings of the Subcommittee were held in January and August 1988; all meetings included participation by the several work group leaders, Coordinator, Data Manager, curators, and the GSMFC Executive Director. Subcommittee members and proxies are listed in Table 1.

An annual joint meeting of the two programs was held in January 1988, in Annapolis, Maryland with representatives from all participating agencies attending. Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in August 1988 to discuss respective program needs and priorities for FY1989. Minutes from all SEAMAP-Gulf meetings are shown in Appendix II.

SEAMAP-Gulf work groups met this past year to provide recommendations to the Subcommittee for survey and data management needs. The Red Drum Work Group participated in the State-Federal Red Drum Conference in March 1988 and met in July 1988; the Plankton Work Group met via conference call in March and held a meeting in April 1988; and the Shrimp/Bottomfish Work Group met via a conference call in March and an April 1988 meeting in New Orleans. Where additional discussion was needed, the Subcommittee and work groups also deliberated plans and needs via telephone conference calls. Work group members are listed in Table 2.

Coordinating program surveys and distributing quick-report summaries of a Gulf-wide survey to management agencies and industry were major functions of SEAMAP management in FY1988. Other important management activities included coordinating data provision and specimen loans, preparing publications and documents, and assisting in the

preparation of State-Federal cooperative agreements, including amendments to permit extension of activities previously not detailed in the agreements.

#### PROPOSED FY1989 ACTIVITIES

Preliminary FY1989 SEAMAP-Gulf budget allocations are shown on Table 3. Total program allocations for both SEAMAP programs, Gulf, South Atlantic and Caribbean, total \$1 million. However, anticipated reductions may affect the available funds. Of this, the share to be allocated for all NMFS and Gulf State activities (including GSMFC) is \$732,800.

Proposed FY1989 activities for all Gulf participants are shown in Table 4. It should be noted that the SEAMAP fiscal year begins on January 1, unlike the GSMFC/TCC fiscal years; thus, fall activities for FY1989 will be conducted from October-December, 1989.

TABLE 1.

SEAMAP REPRESENTATIVES 1988

Walter M. Tatum, Chairman  
Alabama Department of Conservation and Natural Resources

Richard Waller, Vice Chairman  
Mississippi Department of Wildlife Conservation  
Gulf Coast Research Laboratory

Barney Barrett  
Louisiana Department of Wildlife and Fisheries

Karen Jo Foote\*  
Louisiana Department of Wildlife and Fisheries

Paul Hammerschmidt\*  
Texas Parks and Wildlife Department

Stevens Heath\*  
Alabama Department of Conservation and Natural Resources

J. Alan Huff  
Florida Department of Natural Resources

Andrew J. Kemmerer\*  
National Marine Fisheries Service  
Southeast Fisheries Center

Mark Leiby\*  
Florida Department of Natural Resources

Gary Matlock  
Texas Parks and Wildlife Department

Thomas McIlwain\*  
Mississippi Department of Wildlife Conservation  
Gulf Coast Research Laboratory

Scott Nichols  
National Marine Fisheries Service  
Southeast Fisheries Center

Wayne Swingle  
Gulf of Mexico Fishery Management Council

\*Designated proxy

TABLE 2.

SEAMAP WORK GROUPS MEMBERS, 1988

PLANKTON WORK GROUP

Joanne Shultz, Leader  
Mississippi Department of Wildlife Conservation  
Gulf Coast Research Laboratory

Jack Gartner  
Curator, SEAMAP Archiving Center  
Florida Department of Natural Resources

Harriet Perry  
Mississippi Department of Wildlife  
Conservation  
Gulf Coast Research Laboratory

Churchill Grimes  
National Marine Fisheries Service  
Panama City Laboratory

Richard Shaw  
Louisiana State University

Don Hoss  
National Marine Fisheries Service  
Beaufort Laboratory

Ken Stuck  
Curator, SEAMAP Invertebrate Plankton  
Archiving Center  
Mississippi Department of Wildlife Cons.  
Gulf Coast Research Laboratory

Mark Leiby  
Florida Department of Natural Resources

Gus Zieske  
Louisiana Dept. of Wildlife  
and Fisheries

SHRIMP/BOTTOMFISH WORK GROUP

Philip Bowman, Leader  
Louisiana Department of Wildlife and Fisheries

C.E. Bryan  
Texas Parks and Wildlife Dept.

Terry McBee  
Mississippi Department of Wildlife  
Conservation  
Gulf Coast Research Laboratory

Stevens Heath  
Alabama Department of Conservation and  
Natural Resources

Scott Nichols  
National Marine Fisheries Service  
Pascagoula Laboratory

Edward Klima  
National Marine Fisheries Service  
Galveston Laboratory

Butch Pellegrin  
National Marine Fisheries Service  
Pascagoula Laboratory

ENVIRONMENTAL DATA WORK GROUP

Warren Stuntz, Leader  
National Marine Fisheries Service  
Pascagoula Laboratory

Charles Eleuterius  
Mississippi Department of Wildlife  
Conservation  
Gulf Coast Research Laboratory

Ken Haddad  
Florida Department of Natural Resources

Ron Gouguet  
Louisiana Department of Wildlife and  
Fisheries

Thomas Leming  
National Marine Fisheries Service  
Mississippi Laboratories

TABLE 2 (CONT'D.)

RED DRUM WORK GROUP

Thomas McIlwain, Leader  
Mississippi Department of Wildlife Conservation  
Gulf Coast Research Laboratory

Richard Condrey  
Louisiana State University

Walter Nelson  
National Marine Fisheries Service  
Miami Laboratory

Larry McEachron  
Texas Parks and Wildlife Department

Mike Murphy  
Florida Department of Natural Resources

Joseph Shepard  
Louisiana Department of Wildlife and  
Fisheries

Mark Van Hoose  
Alabama Department of Conservation and Natural Resources

DATA COORDINATING WORK GROUP

Kenneth Savastano, Leader  
National Marine Fisheries Service  
Mississippi Laboratories  
SEAMAP Data Manager

Philip Bowman  
Louisiana Dept. of Wildlife & Fisheries  
Shrimp/Groundfish Work Group

Warren Stuntz  
National Marine Fisheries Service  
Pascagoula Laboratory  
Environmental Data Work Group

Thomas McIlwain  
Mississippi Department of Wildlife  
Conservation  
Gulf Coast Research Laboratory  
Red Drum Work Group

Frederick "Buck" Sutter  
Florida Department of Natural  
Resources  
Squid/Butterfish Work Group

Joanne Shultz  
Mississippi Department of Wildlife  
Conservation  
Gulf Coast Research Laboratory  
Plankton Work Group

Walter M. Tatum  
Alabama Department of Conservation and  
Natural Resources  
Chairman, SEAMAP Subcommittee

SQUID/BUTTERFISH WORK GROUP (inactive)

Frederick "Buck" Sutter, Leader  
Florida Department of Natural Resources

Gilbert Bane  
Louisiana State University

Terry McBee  
Mississippi Department of Wildlife  
Conservation

Chris Gledhill  
National Marine Fisheries Service  
Pascagoula Laboratories

Mark Van Hoose  
Alabama Department of Conservation and  
Natural Resources

TABLE 3.

## PRELIMINARY FY1989 PROGRAMMATIC BUDGET

GSMFC	\$ 94,000
TPWD	46,000
LDWF	117,200
MDWC/GCRL	97,500
ADCNR	67,100
FDNR	75,900
TOTAL	\$497,700
NMFS	\$235,100

TABLE 4.

## PROPOSED SEAMAP-GULF ACTIVITIES, FY1989

Activity	Fall	Winter	Spring	Summer
<b>Resource Surveys:</b>				
Spring Plankton Survey			X	
Shrimp/Groundfish Trawling Surveys	X			X
Louisiana Seasonal Surveys	X	X	X	X
Plankton Survey	X		X	
Plankton and Environmental Data Surveys	X	X	X	X
<b>Information Operations:</b>				
1986 Biological and Environmental Atlas			X	
1987 Biological and Environmental Atlas		X		
1989 Marine Directory			X	
1989 Annual Report	X			
Data Management System Implementation	X	X	X	X
Data Input and Request Processing	X	X	X	X
Specimen Archiving and Loan	X	X	X	X
Real-time Data Summaries				X
Program Administration	X	X	X	X

## PUBLICATIONS

The following publications were published and distributed in FY1988:

- ° 1988 SEAMAP Marine Directory. Inventories of marine agency contacts (State, Federal and university) concerned with fishery research in the Gulf, and summaries of information provided by these organizations: target species, types of fishery-independent sampling gear and platforms, annual sampling effort and other material.
- ° 1988 SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee; a detailed summary of program accomplishments, emphasizing survey design, materials collected, data dissemination, budget information and future survey activities.
- ° Sciaenops, Newsletter of the State-Federal Cooperative Program for Red Drum Research in The Gulf of Mexico. Vol. 2, No. 1-2. 1988-89 program updates to be published and distributed to program participants and others interested in red drum research.
- ° 1985 SEAMAP Environmental and Biological Atlas, June 1988; a compilation of information obtained from the 1985 SEAMAP surveys, including catch rates of shrimp and finfish, a squid/butterfish survey across the Gulf, an ichthyoplankton cruise, and environmental data.
- ° 1987 Annual Report of the SEAMAP Program - October 1, 1986 to September 30, 1987; a summary of 1987 activities and proposed 1988 events for both SEAMAP programs.

## FY1988 FINANCIAL REPORT

Total allocations for FY88 program administration were \$93,600. As of September 30, total expenditures and encumbrances were: \$75,395.21. The remaining balance of \$18,204.79 will be used to provide administration through December 31, 1988.



## **APPENDICES**



**SEAMAP****SOUTHEAST AREA MONITORING AND ASSESSMENT PROGRAM****PROGRAM REVIEW****Introduction:**

This review of the SEAMAP program was requested by the National Marine Fisheries Service (NMFS) and state participants in the program to evaluate the purpose and accomplishments of the first five years of existence. The external review process was designed to bring together individuals with varied backgrounds and experience in fisheries management, data management, research, administration, and evaluation procedures to consider the goals and objectives of a rather comprehensive stock assessment and monitoring program. The report presents a summary of findings and recommendations derived from visits with administrators and participants of the South Atlantic and Gulf States SEAMAP program. Technical questions such as sampling procedures or vessel useage are discussed only as they relate to the program goals and objectives. Organizational and functional aspects of the program are stressed, and recommendations are made primarily to improve the efficiency and effectiveness of SEAMAP for meeting identified data needs.

A total of 15 objectives related to the ongoing program were proposed for the review. These objectives represent "felt concerns" of participants in the program. Objectives were enumerated in Part I — Section C.2 of the Description/Specifications/ Work Statement, prepared by Dr. Andrew Kemmerer, the NMFS Contracting Officer's Technical Representative (COTR).

The 15 objectives were condensed into three categories for purposes of discussion and evaluation. Categories and Review Objectives are:

**I. PROGRAM STRUCTURE**

## Objectives

1. Status of program relative to original goals and objectives.
3. Data needs establishment procedure, prioritization and response by committees and work groups.
9. Roles of "sub-bodies" in the program, effectiveness, need for change.
11. Roles of program commissions and coordinators, definition, and effort.
14. Administrative and institutional problems and barriers to work agreements.

**II. OPERATIONS**

## Objectives

4. Formation and operation of work groups.
5. Relationships between committees and management.
7. Funding rationales and methods for program elements.
12. Coordination between Gulf and South Atlantic groups, adequate or needed.
15. Evaluate need for revision of operations plans for two regions.

### III. DOCUMENTATION AND EVALUATION

#### Objectives

2. Is past program documentation adequate?
  6. Evaluate needs and effectiveness of program elements, especially archives.
  8. Evaluate internal review procedures.
  10. Evaluation of output relative to needs of system users.
  13. Emergency resource needs versus long term needs.
- 

The report is divided into three main parts, abbreviated recommendations, detailed recommendations, and findings. Recommendations of the review panel are presented first and represent a synopsis of findings derived from the review process. The general findings of the visits with SEAMAP personnel and a review of SEAMAP documents are contained in Appendix 1.1. A brief statement of observations outside the charge to the Review Panel is included at the end of the Findings section.

The comments contained in this report meet the goal of the COTR which is to provide "specific recommendations on which organizational and functional aspects of the program should be maintained or modified to ensure that overall goals and objectives of the Program can be achieved efficiently."

The review procedure which led to this report consisted of site visits in Biloxi, Mississippi for the Gulf SEAMAP and Charleston, South Carolina for the South Atlantic SEAMAP programs. A third meeting was held in Atlanta, Georgia with program leaders after the review panel had completed its initial draft report. Comments and suggestions from that meeting were combined into the final report contained herein.

## RECOMMENDATIONS

### Abbreviated Recommendations

#### PROGRAM STRUCTURE

Objective 1. Status of program relative to original goals and objectives.

Redefine goals and objectives in the operations plan for both regions on an annual basis. The Strategic Plan stands as the original conceptual framework under which the program was initiated. Regional Operations Plan should be viewed as an annual work guide to accomplish one or more of the Strategic planning goals. An additional Management Plan encompassing both regions should be developed. This plan is needed to solidify strong support for a coordinated fisheries management program. Such a plan would be revised every five years to maintain current relevance.

Objective 3. Data needs establishment procedure, prioritization and response by committees and work groups.

There is a clear need for a more refined process for determining procedures and priorities for the program. Priorities should be determined more by the SEAMAP Committees of each region as opposed to being driven by workgroup participant initiatives.

Objective 9. Roles of "sub-bodies" in the program, effectiveness, need for change.

Improved coordination with Sea Grant is essential. The existing relationship with Sea Grant Extension programs is quite good. However, the relationship could be improved by expanded Sea Grant/SEAMAP interaction. Sea Grant representation should be included as non-voting membership on the respective Gulf and South Atlantic SEAMAP Boards.

A means to rotate chairmanships of various committees would be helpful in order to get fresh thinking in the process.

Objective 11. Roles of program commissions and coordinators, definition, and effort.

Specific concern relative to the dual line of responsibility for the South Atlantic and Gulf Coordinators was felt by the Review Panel. A more definite line of authority for full-time Coordinators should be defined. A new line of administrative responsibility is recommended as an alternative to that now in place.

Objective 14. Administrative and institutional problems and barriers to work agreements.

SEAMAP activities and benefits need to be better communicated to responsible state, private, and federal entities.

The Department of Commerce/ NOAA must develop some means to be more responsive in allocating available funds. Delays in this area may jeopardize timing of specific species surveys, which is critical to survey success.

## PROGRAM OPERATIONS

### Objective 4. Formation and operation of work groups.

The regional SEAMAP Committees need to be more directly involved in objective determination. Reliance on workgroups alone can and does appear to result in permanence of objectives.

Objectives of workgroups are interpreted as operational objectives. This procedure should be amended so that objectives are determined by the Committee in charge in each region, and the workgroups appointed to fill the need. There is a need for more "outside" expertise and peer review of workgroup objectives and products before they are released to the public.

There is a clear need for more input into sampling design, etc. by qualified researchers if long-term data are to be satisfactory for management goals.

A Technical Review is recommended in addition to this program review. Such a review would be directed toward verification of monitoring techniques and sample design as well as quality of data needed for proper analysis.

### Objective 5. Relationships between committees and management.

A reorganization of the management structure for SEAMAP is recommended.

### Objective 7. Funding rationales and methods for program elements.

Guidelines are needed regarding the rate of overhead and expenses of the Gulf and South Atlantic Commissions, regional shares of allocated funds, and other funds which may accrue to the SEAMAP program. Guidelines should be explicit in the recommended Management Plan.

Funding barriers may be overcome through wider distribution of program results in a quality format.

Any parts of the Management and Operations Plans which can or cannot be done with current funds should be explicitly defined.

NMFS and the Department of Commerce/NOAA should speed up delivery of grant funds.

Neither region can afford to continue extended emphasis on plankton sampling. The already high cost of processing, sorting, and identification of plankton is too costly to continue.

### Objective 12. Coordination between Gulf and South Atlantic groups, adequate or needed.

An overall program Management Plan is recommended.

### Objective 15. Evaluate need for revision of operations plans for two regions.

Periodic reviews of goals and objectives are relevant, and annual program revisions would be an appropriate direction.

## DOCUMENTATION AND EVALUATION

### Objective 2. Is past program documentation adequate?

Program reviews in the future will need more complete documentation of workgroup activities. SEAMAP must also improve documentation of the program to higher level governmental agencies and the general public. The Sea Grant Marine Extension Program would be an excellent vehicle to disseminate program documentation to primary users and the general public.

### Objective 6. Evaluate needs and effectiveness of program elements, especially archives.

The Archival systems have been shown to be important components of the overall program, especially for end-product data users, i.e. fishery management. There is concern, however, that the archives may be too slow in making samples accessible for user needs.

Data management problems of format continually plague the program. Continued data gathering under the auspices of SEAMAP which are not compatible can only be detrimental to the program. A "universal discipline" must be established and maintained with regard to data management.

### Objective 8. Evaluate internal review procedures.

Some balance must be achieved between the need for annual or semi-annual internal reviews and the time and finances needed to do the job. Annual internal reviews of operational objectives and tasks are recommended.

### Objective 10. Evaluation of output relative to needs of system users.

A Technical Review of the program is recommended, followed by a procedure for communicating program success to users, reviewers, and the general public. This is the role of NMFS, Regional Coordinators, and Commission Executive Directors. In addition, communication to users can be improved by cooperation with the Sea Grant Marine Extension Service.

### Objective 13. Emergency resource needs versus long term needs.

Long term data are the foundation for the program. As such these data must receive first priority for funding. Any time short-term data requests are received, they should be "fit" into the overall long-term program, not hastily done at the expense of original program purposes.





Walter Tatum

TCC SEAMAP SUBCOMMITTEE  
MINUTES  
Monday, October 19, 1987  
Key West, Florida

APPENDIX II

Walter Tatum, SEAMAP Subcommittee Chairman, called the meeting to order at 1:00 p.m. The following members and guests were present:

Members

Barney Barrett, LDWF, Baton Rouge, LA  
Scott Nichols, NMFS, Pascagoula, MS  
Walter Tatum, ADCNR, Gulf Shores, AL  
Jerry Clark (proxy for G. Matlock), TPWD, Austin, TX  
J. Alan Huff, FDNR, St. Petersburg, FL  
Dick Waller, GCRL, Ocean Springs, MS  
J.Y. Christmas, TCC Chairman, Ocean Springs, MS

Staff

Larry Simpson, GSMFC Executive Director  
Tom Van Devender, SEAMAP Coordinator

Others

Andrew J. Kemmerer, NMFS, Pascagoula, MS  
Phil Bowman, LDWF, Baton Rouge, LA  
Ken Savastano, NMFS, NSTL, MS  
Tom McIlwain, GCRL, Ocean Springs, MS  
Nikki Bane, NMFS, Miami, FL  
Joanne Shultz, GCRL, Ocean Springs, MS  
Terrance R. Leary, GMFMC, St. Petersburg, FL  
Eugene Nakamura, NMFS, Panama City, FL  
Randy Edwards, Mote Marine Laboratory, Sarasota, FL  
Russell Thompson, Ocean Springs, MS

Adoption of Agenda

The agenda was adopted as presented.

Adoption of Minutes

The minutes for the last Subcommittee meeting on September 25, 1987 in Ocean Springs, Mississippi were discussed. On page 2, the fourth line, the words "to fund Louisiana's request with" were omitted and the corrected minutes accepted.

Administrative Report

The Coordinator presented an Administrative Report through September 30, 1987. It was noted that from remaining funds (\$22,333.83) expected expenses before December 31, 1987 included two work group

meetings, the present Subcommittee meeting, and publication of the 1987 Joint SEAMAP-Gulf and South Atlantic Annual Report, and of the 1985 SEAMAP Atlas.

SEAMAP publications to date include:

- 1987 SEAMAP Marine Directory
- Annual Report to the TCC
- Sciaenops - the monthly newsletter on red drum research activities
- SEAMAP Operations Manual - for shipboard procedures
- Data Management System Requirements Document
- Data Management System Design Study

A trial quarterly SEAMAP "newsletter," covering activities for both the Gulf and South Atlantic programs is planned for distribution in January and April 1988.

#### Status of FY88 Funds

A. Kemmerer presented a proposed SEAMAP Budget Summary for the Gulf, South Atlantic and NMFS allocations. Based on an appropriation of \$1,000K and an assumed reduction of \$50K, the remaining monies would be allocated at \$270K to NMFS; \$505K to SEAMAP-Gulf; and \$175K to the South Atlantic program.

At the special SEAMAP budget meeting in September, Gulf participants agreed to proposed funding of:

Gulf States Commission	\$ 95,000
Texas	45,000
Louisiana	118,000
Mississippi	101,000
Alabama	69,000
Florida	77,000

(Florida receives additional \$14K from South Atlantic Program)

A. Kemmerer noted that if Congress cannot pass a federal budget by January 1, funding of all programs under a "continuing resolution" situation may result in only partial funding, i.e. quarterly, for all Cooperative State/Federal programs - including SEAMAP.

#### Status of FY88 Cooperative Agreements

SEAMAP Program Officer, N. Bane, reported that FY88 Cooperative Agreements for Louisiana, Alabama and the Commission had been received and were in the review process. All states were urged to complete their applications within the next two weeks to allow for necessary federal review processes and still receive funding by the January 1, 1988 start-up date.

#### Cooperative Tagging Program Presentation

The Subcommittee jointed the meeting of the Data Management Subcommittee for a demonstration and presentation of the proposed Cooperative Tagging System by the NMFS Miami Laboratory. A detailed report on the software programs developed and their application for red drum, king mackerel and other tagging programs was given by Carol Goodyear and Lloyd Muccio. It was noted that much of the design of the interactive system was based on the SEAMAP Data Management System design.

#### Passive Gear Workshop

The Gulf and South Atlantic coordinators presented a report on the Passive Gear Assessment Workshop held August 27 and 28, 1987 in Mayaguez, Puerto Rico, in conjunction with the Puerto Rico Sea Grant Program. Three major sessions totaling 14 presentations and panel discussions were held over the two-day workshop. Publication of the Proceedings is planned for the spring of 1988. The Chairman noted that at the joint meeting an invitation was issued by the Gulf and South Atlantic SEAMAP programs to the Caribbean group to form a Caribbean SEAMAP component.

#### Work Group Reports

##### Shrimp/Bottomfish Work Group

P. Bowman reported on the August 13, 1987 work group meeting to plan the Fall Shrimp/Groundfish Survey. Additional items recommended:

- update the SEAMAP Operations Manual;
- continue day/night trawling;

- identical survey designs for Spring and Fall surveys, thus shortening the Fall survey;
- reaffirm the use of 16-ft trawls for sampling areas 5 fm and shoreward; and 40-ft trawls from 5 fm, seaward;
- obtain permits to exempt SEAMAP survey vessels from upcoming TED regulations.

\* D. Waller moved to accept the work group report. The motion passed.

#### Environmental Data Work Group

S. Nichols reported for work group leader W. Stuntz. The backlog of SEAMAP survey environmental samples is currently being analyzed and all 1985 chlorophyll samples have been completed. Discussion was held on a recommendation that bottom grabs be initiated during the 1987-88 cruise surveys, however funding for analysis of the samples was not identified.

#### Red Drum Work Group

T. McIlwain reported on an October 13, 1987 meeting whereby methods to address the 20% escapement issue of red drum from estuaries to the offshore stock was discussed. It was agreed that the quickest method of measuring escapement rates would involve mark/recapture of juvenile fishes in year classes 0 through 5. Work group members agreed to write a detailed field protocol for marking procedures and standardize, where practical.

Concern was expressed by the work group that NMFS may not be funded to continue offshore mark/recapture activities and aerial surveys of red drum schools.

The work group requested that another Red Drum Conference, similar to that presented at the GSMFC March 1987 meeting in Biloxi, be held during the March 1988 GSMFC Annual Spring meeting.

\* D. Waller moved to accept the report and the request for the March 1988 conference. The motion passed.

#### Data Coordinating Work Group

K. Savastano reported that all environmental data for 1985 has been verified and entered into the data system and tables are now being generated for the 1985 SEAMAP Atlas.

A total of 59 requests for SEAMAP data have been received; 57 have been filled and work is being performed on those remaining.

Procurement for hardware to be used in the new SEAMAP Data Management System Design is underway, with delivery of five new machines expected in November.

\* D. Waller moved to accept the report and the motion passed.

#### Plankton Work Group

J. Schultz reported on the September visit of two scientists from the Polish Sorting Center to southeast U.S. laboratories, the first direct communication between PSC scientists and their counterparts in the Gulf. SEAMAP representatives from Louisiana Department of Wildlife and Fisheries, Louisiana State University, Gulf Coast Research Laboratory, Alabama Department of Conservation and Natural Resources, NMFS-Pascagoula Laboratory, Florida Department of Natural Resources, NMFS-Panama City Laboratory and South Carolina Wildlife and Marine Resources Department were able to host the visiting scientists and provide relevant materials -- specimens for reference and scientific literature -- for sorting SEAMAP samples.

Specific recommendations of the plankton work group developed from a meeting held October 14, 1987 included:

- Ear-marking monies specifically for invertebrate sorting only when an acceptable number of samples can be sorted (one per day per sorter) by the PSC.
- Investigation into an additional plankton sorting center, as the backlog at the PSC mounts.
- An audit of PSC progress and use of previously recommended protocols.
- Exchange of monthly telexes between the PSC and the NMFS-Southeast Fisheries Center.
- Cruise reports be provided to the archivists, listing plankton sample locations, and that the SEFC Miami Laboratory provide archivists a list of samples at the time of shipment to Poland.
- Reiterate that SEAMAP plankton protocol requires bongo and neuston samples be taken at each collection site.
- Consider future reductions in SEAMAP plankton sampling efforts.

Discussion followed on the backlog of samples held at the Polish Sorting Center and the long delays in receiving plankton data. The Chairman suggested the Subcommittee hold a one day meeting, prior to the end of the year, devoted entirely to plankton issues. A. Kemmerer noted that a representative from the NMFS Northeast Fisheries Center and/or a member of the U.S.-Polish Sorting Center Advisory Committee be invited to attend such a meeting to answer questions concerning PSC operations.

\* D. Waller moved to hold a special plankton-oriented Subcommittee meeting before the end of the year and invite a representative from the NEFC. A. Huff seconded and the motion passed.

#### Cruise Log

The Coordinator provided two examples of cruise reports for possible adaption to SEAMAP purposes. Discussion centered on the need for a simplified cruise log to track number of samples, location and types of gear employed and associated hydrological parameters taken. Designated field party chiefs for surveys would be responsible for submission of a cruise log to the Coordinator who would then distribute the information to the Subcommittee SEAMAP Data Manager and Curators.

K. Savastano recommended that with additional informational headings including "agency," "date submitted," and "submitter" the Louisiana Cruise Lab example would be adequate for data tracking.

The Coordinator will incorporate the additional data headings and develop a SEAMAP Cruise Log for presentation at the next Subcommittee meeting.

#### Program Review

A. Kemmerer presented a brief overview of the preliminary report of the SEAMAP Program Review Panel. Draft copies were made available to Subcommittee members during the presentation of recommendations of the Review Panel. All fifteen objectives set forth in the contract's Statement of Work were addressed by the Panel under the headings of Program Structure, Program Operations and Documentation and Evaluation.

Following the presentation of recommendations for each objective to the Subcommittee, A. Kemmerer noted that the ad hoc Program Review Group would meet Tuesday, October 20, 1987 to identify any problems and determine future actions regarding the report.

Other Business

Chairman Tatum distributed a draft resolution prepared by a committee consisting of himself, A. Kemmerer and A. Huff, calling for a joint SEAMAP Work Group to prepare a budget initiative for full implementation of the program. With editorial changes in the final paragraph, B. Barrett moved to accept the resolution. The motion was seconded and passed unanimously. (See attached resolution.)

At the request of B. Barrett, the Coordinator presented a breakdown of the 1987 Shrimp/Bottomfish near-real-time data mailouts. Approximately 275 data summaries and plots were distributed weekly at a cost of \$550 per week for printing and postage. Number of individuals, by state, receiving data plots was also given.

Errata -- The Coordinator noted an error in the 1987 SEAMAP Annual Report to the Technical Coordinating Committee. On page 45, Phil Bowman should be recognized as work group leader for shrimp/bottomfish.

There being no further business, the meeting was adjourned at 5:22 p.m.

Draft

PROPOSED RESOLUTION: SEAMAP

WHEREAS, fishery resources of the southeast region of the United States are the basis of important commercial and recreational fisheries which are vital to the economy of the Nation, and

WHEREAS, increasing concern has been expressed about the health and continued productivity of many of these resources, and

WHEREAS, there are a number of underutilized fishery resources in various stages of development for which information is sorely lacking, and

WHEREAS, State and Federal agencies have joined efforts in the Southeast Area Monitoring and Assessment Program (SEAMAP) to collect fishery-independent data essential for the management and wise development of fishery resources, and

WHEREAS, SEAMAP has proven its value for fishery research and management even though funded at a level much lower than planned or needed for full implementation of the Program, and

WHEREAS, a Caribbean component had been planned to become part of the Program, but insufficient funding has prevented this expansion from taking place,

THEREFORE, be it resolved that the Gulf States Marine Fisheries Commission requests the Atlantic States Marine Fisheries Commission to join it in establishing a joint SEAMAP Work Group to prepare a budget initiative, in cooperation with appropriate representatives from Puerto Rico and the U. S. Virgin Islands, for distribution to members of the U. S. Congress, and

THEREFORE, be it further resolved that the initiative be designed for full implementation of the SEAMAP Gulf and South Atlantic programs, and initiation of a comparable program in the U. S. Caribbean.



GULF AND SOUTH ATLANTIC SEAMAP COMMITTEES  
 JOINT MINUTES  
 January 20-21, 1988  
 Annapolis, MD

APPROVED BY:

APPROVED BY:

COMMITTEE CHAIRMAN:

COMMITTEE CHAIRMAN:

SEAMAP-South Atlantic Chairman, Alan Huff, called the meeting to order at 9:15 a.m. The following members and others were present:

Members

J. Alan Huff, FDNR, St. Petersburg, FL  
 Walter Tatum, ADCNR, Gulf Shores, AL  
 Scott Nichols, NMFS, Pascagoula, MS  
 Joanne Shultz, proxy for R. Waller, GCRL, Ocean Springs, MS  
 Barney Barrett, LDWF, Baton Rouge, LA  
 Paul Hammerschmidt, proxy for G. Matlock, Port O'Connor, TX  
 Paul Hooker, proxy for W. Swingle, GMFMC, Tampa, FL  
 John V. Gartner, FDNR, St. Petersburg, FL  
 Ken Stuck, GCRL, Ocean Springs, MS  
 J.Y. Christmas, TCC Chairman, Ocean Springs, MS  
 Roger Pugliese, SAFMC, Charleston, SC  
 Mike Street, NCDMF, Morehead City, NC

Staff

Nikki Bane, SEAMAP-South Atlantic Coordinator  
 Tom Van Devender, SEAMAP-Gulf Coordinator  
 Eileen Benton, GSMFC Administrative Assistant  
 Laura Leach, ASMFC Assistant to the Director

Others

E.W. Spurr, NHF&G, Concord, NH  
 Karen Jo Foote, LDWF, Baton Rouge, LA  
 Perry Thompson, NMFS, Pascagoula, MS  
 Dick Hennemuth, NMFS, Woods Hole, MD  
 Brad Brown, NMFS, Miami, FL  
 Joe Angelovic, NMFS, Washington, DC  
 Jean Martin-West, CASC, Kansas City, MO  
 Bob Shephard, Sea Grant, Washington, DC  
 I.B. Byrd, NMFS, St. Petersburg, FL  
 Alan Wesche, MTFA, Ocean City, MD  
 Don Hoss, NMFS, Beaufort, NC  
 Phil LaBonte, NOAA, Washington, DC  
 Millie Ingels, NOAA, Washington, DC  
 Kathy Hensley, NOAA, Washington, DC  
 Andy Kemmerer, NMFS, Pascagoula, MS  
 Bruce Halperin, New Jersey  
 Jim Douglas, NMFS, Washington, DC  
 Ken Sherman, NMFS, Washington, DC  
 Jim McCallum, MMFC, Washington, DC

Adoption of Agenda

The agenda was adopted as presented.

Ecosystems and the State-Federal Partnership

J. Douglas gave a report on ecosystems and the State-Federal partnership. He reported that NMFS is in the process of developing an ecosystems approach for the southeast as a fisheries management measure. He also noted the importance of State-Federal cooperation in accomplishing this goal.

Program Review

A. Kemmerer moderated recommendations of the program review document. Listed below are outcomes of the recommendations:

Objective 1 - Evaluate program status relative to goals and objectives established in the strategic and operational plans.

Recommendations:

ACCEPTED 1 - Prepare separate annual updates of each program's Operations Plan.

ACCEPTED 2 - Prepare a Joint Five-Year Management Plan.

Objective 14 - Consider impacts of administrative and institutional barriers and delays related to issuance of cooperative agreements on SEAMAP. Also, address the advisability of continuing the program should NMFS funding cease or be significantly reduced.

Recommendations:

ACCEPTED 1 - SEAMAP activities need to be more effectively communicated.

ACCEPTED 2 - Department of Commerce must be more responsive in authorizing and administering funds.

Objective 3 - Evaluate how data needs are established, given priorities and responded to by the committees and work groups.

Recommendation:

ACCEPTED 1 - The Five-Year Plan and Annual Operations Plans will accomplish above Objective.

Objective 9 - Evaluate roles of the Commissions, States, Councils, Sea Grant and NMFS in the program.

Recommendations:

- ACCEPTED 1 - Continue to invite and encourage Sea Grant participation at SEAMAP meetings.
- REJECTED 2 - Rotate Chairman of the Committees and workgroup leaders.
- ACCEPTED 3 - The Council's role should be better defined in the Five-Year Plan.

Objective 2 - Evaluate program documentation for completeness and as an aid in performing the review and developing recommendations.

Recommendations:

- ACCEPTED 1 - Formal workgroup meeting minutes/reports are needed.
- ACCEPTED 2 - Improved communication of the SEAMAP program is needed.
- ACCEPTED 3 - Sea Grant would be an excellent method to disseminate SEAMAP documentation.

Objective 11 - Evaluate the roles of the Commissions and component coordinators in the program.

Recommendations:

- ACCEPTED 1 - The Coordinator's role will be addressed in the Five-Year Plan as to close ties to the workgroups and line of authority.
- ACCEPTED 2 - A full-time Coordinator for the South Atlantic is needed.
- REJECTED 3 - Restructure of the administrative responsibility is needed.

Objective 4 - Evaluate formation and operation of work groups.

Recommendations:

- ACCEPTED 1 - SEAMAP Committees should get more involved with the workgroups e.g., outline objectives and follow-up each year with the Annual Operations Plan.
- ACCEPTED 2 - Recognize importance of outside expertise and respond accordingly.
- ACCEPTED 3 - Technical Reviews are appropriate and should be continued.

JOINT SEAMAP MINUTES

January 20-21, 1988

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Objective 5 - Evaluate relationships between the committees and their responsible management authority.

Discussed in Objective 11.

Objective 7 - Evaluate methods and rationales used for funding activities and operations of the program.

Recommendations:

ACCEPTED 1 - Guidelines are needed for overhead and allocation of funds to the SEAMAP programs and these guidelines should be explicit in the Five-Year Plan.

ACCEPTED 2 - Parts of the Operational Plan which cannot be done with current funds should be defined.

ACCEPTED 3 - NOAA should speed-up delivery of grant funds.

REJECTED 4 - Neither the Gulf nor the South Atlantic can afford to continue extended emphasis on plankton sorting.

ACCEPTED 5 - Recommend wider distribution of program results to reduce funding barriers.

Objective 12 - Evaluate coordination between the Gulf and South Atlantic components of the program.

Recommendations:

ACCEPTED 1 - Overall management plan is needed. (Discussed in Objective 1.)

ACCEPTED 2 - Differences in the two programs are understandable and acceptable.

ACCEPTED 3 - Coordination through the two archival centers will be of only limited success.

Objective 15 - Evaluate the need for updating/revising the Gulf and South Atlantic components of the program.

Recommendation:

ACCEPTED 1 - Annual review of the Operations Plan is needed. (Discussed in Objective 1.)

Objective 6 - Evaluate needs for and effectiveness of established elements of the program such as the SEAMAP Data Management System, SEAMAP Vertebrate Archival Center and SEAMAP Invertebrate Archival Center.

Recommendations:

- ACCEPTED 1 - Archival System is an important program component.
- REJECTED 2 - Emphasis on plankton should be reduced.
- ACCEPTED 3 - Two-four year turnaround period is too long for processing plankton samples and problems need to be addressed.
- ACCEPTED 4 - Universal discipline must be established and maintained for data management.
- ACCEPTED 5 - Problems with data management are improving and the recommendations are noted as an observation.

Objective 8 - Evaluate internal review and evaluation procedures used by the committees and governing bodies.

- ACCEPTED 1 - Annual internal review of objectives and tasks are needed. (Discussed in Objective 1.)
- ACCEPTED 2 - Reviews should be conducted by coordinators and oversight committees.
- ACCEPTED 3 - Reviews should be documented.

Objective 10 - Evaluate how well the program is meeting the Southeast Region's needs for fishery independent data.

- ACCEPTED 1 - A more aggressive effort to distribute information about the program is needed.
- REJECTED 2 - A technical review of survey designs, sampling protocols, and data is needed. (Already on-going.)
- ACCEPTED 3 - NMFS, Coordinators and Commission Executive Directors role for communicating the success of the program to the general public is very important.
- ACCEPTED 4 - Cooperation with Sea Grant Extension Service should improve communication.

Objective 13 - Evaluate appropriateness and effectiveness of SEAMAP for addressing emergency resources information needs and the impact of this on program integrity.

ACCEPTED 1 - Long-term data are the foundation of the program and should receive highest funding priorities.

ACCEPTED 2 - Ad hoc activity needs to be evaluated in the SEAMAP programs.

## BUSINESS MEETING

### Adoption of Minutes

The minutes of the joint meeting held August 26, 1987 in Mayaguez, PR were approved with minor editorial changes.

### SEAMAP Initiative

T. Van Devender reported that as a first step in the SEAMAP Budget Initiative approved at the August Joint meeting, a group consisting of A. Huff, D. Cupka, P. Sandifer and the Gulf Coordinator accompanied L. Simpson to Washington, DC in early December. Meetings were scheduled with members of Congress and key staffers of both House and Senate authorizing and appropriating committees. Information was presented on the importance of SEAMAP and the need to increase the program to its originally envisioned scope of activities. The Coordinator noted that the group was well-received, particularly during a time of federal budget reductions, and felt the meetings were timely. Appreciation was expressed to D. Cupka and P. Sandifer for arrangements to meet with Senator Hollings of South Carolina.

J. McCallum addressed the group concerning the FY89 budget prospects for fisheries. He noted that the White House's budget would be presented in February and, as in past years, would probably include reductions in NOAA/NMFS funding. He also noted that Congress in past years often funded items that had been "zeroed-out" in the President's budget. In regard to the SEAMAP Budget Initiative, he felt the December meetings were on-target -- conducted at a propitious time for FY89 congressional budget planning and involving the appropriate committee staffers. For further Budget Initiative activities he advised to keep the program's name well-known to key congressmen, yet avoid "overkill" contact; avoid presenting lengthly detailed documents; and link the program to issues with which congressmen are already familiar, such as the Councils, TEDs and red drum.

### Cooperative Agreement Status

N. Bane reported that all SEAMAP cooperative agreements (with the exception of Texas) are in the system and no problems are anticipated.

with processing. She stated that there is an additional projected budget cut, however cooperative agreements were submitted with original budgets. She also stated that since the budget is not in place, awards will be for the first quarter at 18% of the total award.

#### Review of FY88 Program Deliverables

A. Kemmerer distributed a handout listing projects and timetables of the SEAMAP Coordinators. He felt that the roles of the coordinators in regard to various projects were not well defined and that by defining these roles, coordinators would have better direction and the committee members would be kept abreast of SEAMAP projects.

\* After discussion, A. Huff moved to ask the SEAMAP Coordinators to define activities, responsibilities, and timetables and present to the SEAMAP Committees. Motion seconded and passed.

#### Publications Report

T. Van Devender reported on the status of publications for SEAMAP-Gulf as follows:

- (1) Joint Annual Report is in final edit and anticipate publication in two weeks.
- (2) Gulf Marine Directory -- will solicit information in March with publication anticipated in April 1988.
- (3) 1985 Atlas - Anticipate publication in the spring. First draft will be distributed to Subcommittee members and work group leaders.

N. Bane reported on the following publications for the South Atlantic:

- (1) Status and Trends Update was distributed.
- (2) Passive Gear Proceedings -- papers are being edited and returned to authors for final comment. G.P. Patil & W. Nelson papers are currently being transcribed. Anticipate publication in Spring 1988.
- (3) Joint SEAMAP Newsletter - First newsletter will be distributed at the end of January. The second newsletter will be distributed in April. Committees will discuss continuance of the newsletter after the second newsletter is distributed.
- (4) SEFC Cooperative Quarterly will be distributed at the end of January.



- (5) 1984 Ichthyoplankton Atlas -- Publication anticipated this year.

Data Management System Report

A. Kemmerer reported for K. Savastano on the status of the Data Management System. He reported that the current emphasis is on the hardware and software procurement with five machines presently on hand. The contractor, Sverdrup Technology is utilizing four machines for software development. A status report of the SEAMAP Data Management System is attached and A. Kemmerer noted that all modules are on schedule.

FY88 Budget

A. Kemmerer distributed a budget summary for FY88. He noted that the program is looking at a 5.85-6.3% reduction across the board for NMFS programs. He reminded members that they initially anticipated a 5% cut when the budget was split in August, therefore the 5% would be reduced from the final percentage. The Committees concurred that if there is an additional reduction, it would be taken across the board.

Polish Sorting Center Operations/Status of Plankton Samples

K. Sherman presented an excellent slide presentation on plankton and large scale ecosystems around the world. Driving forces for these systems can involve predation, environmental and pollution factors or in the case of the Gulf of Mexico, unknown factors.

A discussion was held regarding the status of samples at the Polish Sorting Center, communication problems and problems associated with the turnaround time on processing SEAMAP samples.

T. Van Devender distributed a report showing the status of SEAMAP plankton samples through December 1987. He reported that approximately 1,826 samples are currently at the sorting center with 700 scheduled for sorting under the present agreement. Discussion of plankton was deferred until the Gulf Subcommittee Meeting Plankton Work Group report.

Other Business

Budget Cycle

N. Bane reported that the options for changing the budget cycle for several South Atlantic states' cooperative agreements are still under study. N. Bane, A. Kemmerer and J. Martin-West hope to resolve this issue shortly.

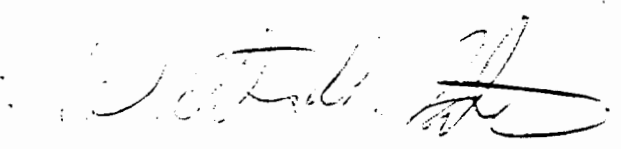
There being no further business, the joint meeting was adjourned at 4:45 p.m.

# STATUS

## SEAMAP DATA MANAGEMENT SYSTEM

Module	Estimated Cost (\$K)	Expenditure (\$K)	Percent Complete	Schedule Status
1. Hardware Procurement	70	42.3 (5 PS/2 Model 8580-071)	60.4	ON
2. OTS Software Procurement	20	0.4 (5 IBM DOS 3.3 Packages)	25	ON
3. Burroughs Applications Software	87.5	19.2	21.9	ON
4. PC Applications Software	65	10.3	15.9	ON
5. Communications	17	1.5	8.8	ON
6. Central Operations	131	0	0	ON
7. Training	21	0	0	ON
8. Plankton	20	0	0	ON
9. Atlas	5	0	0	ON
10. Plotting	15	0	0	ON
11. Near Real Time	73	30 (INMARSAT Antenna System)	41	ON
12. Remote Sensing	12	0	0	ON

TCC SEAMAP MINUTES  
January 21, 1988  
Annapolis, MD



Chairman W. Tatum called the meeting to order at 4:45 p.m. The following members and others were present:

Members

J. Alan Huff, FDNR, St. Petersburg, FL  
Walter Tatum, ADCNR, Gulf Shores, AL  
Scott Nichols, NMFS, Pascagoula, MS  
Joanne Shultz, GCRL, Ocean Springs, MS  
Barney Barrett, LDWF, Baton Rouge, LA  
Paul Hammerschmidt, proxy for G. Matlock, TPWD, Port O'Connor, TX  
Paul Hooker, proxy for W. Swingle, GMFMC, Tampa, FL  
Jack Gartner, FDNR, St. Petersburg, FL  
Ken Stuck, GCRL, Ocean Springs, MS  
J.Y. Christmas, TCC Chairman, Ocean Springs, MS

Staff

Tom Van Devender, SEAMAP Coordinator  
Eileen Benton, Administrative Assistant

Others

Karen Jo Foote, LDWF, Baton Rouge, LA  
Perry Thompson, NMFS, Pascagoula, MS  
Jean Martin-West, CASC, Kansas City, MO  
Don Hoss, NMFS, Beaufort, NC  
A. Kemmerer, NMFS, Pascagoula, MS  
N. Bane, NMFS, Miami, FL  
M. Street, NCDMF, Morehead City, NC

Adoption of Minutes

The minutes of the meeting held October 19, 1987 in Key West, Florida were approved as written.

Administrative Report

T. Van Devender distributed a detailed administrative budget for the period ending 12/31/87. He reported that \$6,200 is encumbered for the Joint Annual Report, 1985 Atlas and the Proceedings of the Passive Gear Workshop. The next SEAMAP meeting will be held March 14, 1988 in Orange Beach, AL.

Plankton Work Group Report

J. Shultz distributed and reviewed the recommendations of the Plankton Work Group Report. (Complete report attached.) She noted that under recommendation #1 the last sentence should read: . . . SEAMAP zooplankton sorting by processing one sample per day per sorter and the progress will be reviewed at the next U.S./Polish Advisory meeting. She noted that the workgroup has tentatively planned to meet in early March 1988.

\* A. Huff moved to accept the Plankton Work Group's recommendations. Seconded. Motion failed.

\* A. Huff moved to accept the Plankton Work Group's recommendation with the exception of Recommendation #2. Motion seconded and passed.

\* B. Barrett moved that Gus Zieske replace Tom Boullion on the Plankton Work Group. Motion seconded and passed.

K. Foote distributed a report on plankton sorting conducted by Louisiana Department of Wildlife and Fisheries.

Planned Activities

P. Hooker discussed the possibility of obtaining estimates of shrimp trawl bycatch from SEAMAP survey vessels for the Gulf Council. During discussion, S. Nichols noted that estimates of bycatch from SEAMAP survey vessels would not be comparable to commercial catches due to survey design. Further discussion was deferred until the March 1988 SEAMAP meeting.

Election of Chairman/Vice Chairman

The Chair opened the floor for election of Chairman and Vice-Chairman for the coming year.

\* A. Huff moved that W. Tatum continue to serve as Subcommittee Chairman. S. Nichols seconded, and the motion passed without objection.

\* J. Shultz moved that D. Waller serve as Vice-Chairman. B. Barrett seconded and without objection, the motion passed.

There being no further business, the meeting adjourned at 5:25 p.m.

The Plankton Workgroup met at the Gulf Coast Research Lab. on 14 October 1987. Workgroup members and archivists in attendance were: M. Leiby, H. Perry, T. Boullion, D. Hoss, C. Grimes, J. Shultz, J. Gartner, and K. Stuck. Scott Nichols, Dick Waller, and Tom VanDevender also attended the meeting.

This report summarizes our discussions and recommendations for the upcoming year. These recommendations were unanimously adopted, and we hope for their favorable acceptance by the subcommittee.

## RECOMMENDATIONS

1. All the members of the workgroup are seriously distressed that, as it now stands, there is no allocation specifically earmarked for invertebrate zooplankton sorting. We recommend that the 5K originally set aside for zooplankton sorting be reinstated and sent to the PSC when they demonstrate a serious commitment to SEAMAP zooplankton sorting by processing an acceptable number of samples over the next 12 months (one sample per day per sorter).
2. We have come to recognize that due to our current sorting needs, and the as yet undetermined needs of SEAMAP South Atlantic (and perhaps Caribbean) we must seriously consider engaging an additional plankton sorting center. ~~This will necessitate increasing the present SEAMAP allocation for plankton sorting.~~ We do not mean by this recommendation to replace the PSC, for it is still a very viable and productive association, due in particular, to the high quality of the work. However, because of the current backlog of samples, and the increasing workload from other sources in addition to SEAMAP (NMFS-NWAF, NMFS-NEFC, and now an Antarctic program), the output of SEAMAP samples has reached such low levels that the cost of sorting in Poland seems to have reached parity with sorting in Canada or the U.S.
3. It is recommended that during her trip next spring to Poland Joanne Shultz conduct an audit of the PSC's progress in sorting SEAMAP samples and in implementing the new subsampling protocol which was presented to the PSC last spring. It is further recommended that SEAMAP withdraw the 25K for ichthyoplankton sorting if, over the next 12 months, processing of SEAMAP samples falls below acceptable levels.

4. It has become quite obvious that the lack of more direct communication between the PSC and NMFS-SEFC is causing us major problems and delays. Tied to this is the issue of regional priority among the NMFS fisheries centers. We recommend that steps be taken to improve communication between representatives of our region and the PSC. We feel that it is not unreasonable to request an exchange of monthly telexes with Poland. Don Hoss will find out what constraints there might be (if any) on communication with Poland, and will report his findings to us.

5. We also realize that we need to improve internal communications between the two archiving centers and all the SEAMAP participants with regard to plankton sampling effort. We recommend, therefore, that a cruise report, or at least a list of sample locations be sent directly to the archivists shortly after completion of each cruise. Furthermore, we request that the SEFC Miami lab send the SAC archivist a list of samples at the time of shipment to Poland.

6. We reiterate that SEAMAP plankton sampling protocol requires that one bongo and one neuston net sample be taken at each collection site. There is no reason at this time to compromise or change this protocol. The extra "ethanol to ethanol" neuston samples which we took in 1986 for the Panama City Lab. are no longer being requested.

7. Finally we acknowledge the problems imposed by limitations in budgets and personnel which force us to consider future reductions in the SEAMAP plankton sampling effort. Difficult choices must be made. Some programs will have to (very reluctantly) be set aside in order to maximize and optimize the information and results which are most productive to all participants. We, therefore, have tentatively planned to meet in early March 1988 to discuss this issue. Each workgroup member will, prior to the meeting, determine the specific data needs of the state and/or group he or she represents. The workgroup will then draw up specific recommendations on the future emphasis and scope of the SEAMAP plankton program, as well as, propose reductions in scale of sampling and modifications in areal and temporal coverage.



TCC SEAMAP SUBCOMMITTEE  
MINUTES  
Monday, March 14, 1988  
Orange Beach, AL

Chairman Walter Tatum called the meeting to order at 1:25 p.m. The following members and guests were present:

Members

Phil Bowman, LDWF, Baton Rouge, LA  
Paul Hammerschmidt, proxy for G. Matlock, TPWD, Port O'Connor, TX  
Dick Waller, GCRL, Ocean Springs, MS  
J.Y. Christmas, TCC Chairman, Ocean Springs, MS  
Walter Tatum, ADCNR, Gulf Shores, AL  
J. Alan Huff, FDNR, St. Petersburg, FL  
Scott Nichols, NMFS, Pascagoula, MS  
Barney Barrett, LDWF, Baton Rouge, LA  
Ken Savastano, NMFS, NSTL, MS

Staff

Larry Simpson, Executive Director  
Tom Van Devender, SEAMAP Coordinator

Others

Karen Foote, Baton Rouge, LA  
Perry Thompson, NMFS, Pascagoula, MS  
Jim Hanifen, LDWF, Baton Rouge, LA  
Tony Jiovenale, CASC, Kansas City, MO  
I.B. Byrd, NMFS, St. Petersburg, FL  
Douglas Vaughn, NMFS, Beaufort, NC  
John Merriner, NMFS, Beaufort, NC  
E.K. Nakamura, NMFS, Panama City, FL  
A.J. Kemmerer, NMFS, Pascagoula, MS  
V.M. Parker, AL Seafood Advisory Commission

Adoption of Agenda

The Chairman added a discussion of trawl by-catch data to the agenda under Other Business. Without objection the amended agenda was adopted.

Adoption of Minutes

The minutes of the SEAMAP-Gulf meeting held January 21, 1988 in Annapolis, Maryland were approved as written.

The Chair introduced Mr. V.M. Parker of the Alabama Seafood Advisory Commission and welcomed him to the SEAMAP Subcommittee meeting.



### Administrative Report

In his Administrative Report, the Coordinator noted that all SEAMAP cooperators had received only 18% of requested funds for the first quarter of operations, due to budget uncertainties within NOAA/NMFS.

Plans are underway for the first of the 1988 cruises:

- Louisiana's seasonal trawl survey is scheduled to begin the last week of March.
- the Gulf-wide Spring Ichthyoplankton Survey will be conducted during April and May.
- 1988's Summer Shrimp/Bottomfish Survey, covering roughly from off Pensacola to the Texas-Mexico border will be conducted during June and July.

SEAMAP will again participate in the National Benthic Surveillance Project for 1988. State representatives will provide local expertise on the availability of bottom-feeding fish --primarily spot and croaker-- which will be analyzed for levels of contaminants.

Publications produced since the last meeting included the 1987 Joint SEAMAP Annual Report which reviewed the past year's activities for both the Gulf and South Atlantic components. Distribution of this document was to the TCC members, the Commissioners and Proxies, the Congressional delegation of the five Gulf states, the governors and key House and Senate subcommittee members and their staffs on Capitol Hill.

The Coordinator noted that publication of the 1985 Atlas is scheduled for May. Discussion was held on the ever-increasing size of SEAMAP atlases and amount of effort to produce the catch tables and plots. Methods to streamline the process and development of the Atlas Module in the SEAMAP Data Management System design were reported by K. Savastano. Further discussions and actions on format of future atlases were delayed by the Chair in order to proceed with the agenda.

The Coordinator distributed to Subcommittee members the updated program deliverables list for Gulf and South Atlantic activities (attached).

### Status of FY88 Funds

A. Kemmerer reported that due to some programs within NMFS being exempted from an initial 6.3% reduction in funds, other programs

--SEAMAP being one of them-- are possibly facing an additional 8% reduction. Such "reprogramming" will require Congressional approval, and the final decision may well not be determined until early summer, nearly half way into the year's activities. If these additional cuts are imposed, serious problems will result in planned activities.

\* Following discussion on mechanisms to address the possible reduction in funds, D. Waller moved to delay amending documents to reflect an 8% additional reduction if funds, if necessary, until the 4th quarter of the current contract year. The motion was seconded and passed with one abstention from the Texas representative.

#### Program Review

A. Kemmerer noted that at the joint SEAMAP meeting in Annapolis, MD the SEAMAP Program Review document, produced by the outside panel was discussed and through consensus the two components -- Gulf and South Atlantic-- accepted or rejected the Panel's recommendations related to the fifteen review objectives.

\* He presented a draft of the actions taken jointly for Subcommittee review and discussion. Once the South Atlantic program has reviewed the accepted Program Review recommendations, plans will be made to translate each recommendation into actions. A. Huff moved that the Gulf and South Atlantic chairmen, the two coordinators and a Caribbean representative will develop actions to answer accepted Program Review recommendations. ~~\*~~ D. Waller seconded, and the motion passed unanimously.

#### Work Group Reports

##### Shrimp/Bottomfish

Work Group leader P. Bowman reported that a consensus of the members were satisfied with current survey designs for both the spring and fall cruises. It was also recommended that near-real-time data on shrimp and bottomfish catches be prepared and distributed as in past years. Gear and vessel calibration studies should be conducted as feasible. All data will be recorded in metric units, with the exception of depth, which will be recorded in fathoms to be consistent with existing NMFS catch statistics. Final plans and review of station

locations for the June-July cruise are scheduled for the next meeting of the work group on April 19 in New Orleans.

\* B. Barrett moved that the work group evaluate at its meeting methods to reduce effort in the summer cruise in anticipation of budget cuts. A. Huff seconded. During discussion it was noted that once stations are dropped there is no way to restore the lost data. A. Kemmerer advised to assume no 8% cut, and allow second and third quarter activities to proceed as planned. The motion failed.

\* A. Huff moved to accept the work group report (attached); the motion was seconded and passed.

#### Environmental Data

S. Nichols reported for work group leader W. Stuntz that the backlog of chlorophyll and salinity samples at the Pascagoula Laboratory has been analyzed. Current projections are for a one-month turnaround time as new samples are received.

#### Red Drum Work Group

T. Van Devender reported for work group leader T. McIlwain that red drum work group members and other researchers will present status reports on their projects Thursday, March 17 at the third State/Federal Red Drum Research Conference. The next Red Drum work group meeting is planned for June to provide input for the annual stock assessment report required by the Gulf Council's Red Drum Fishery Management Plan.

#### Data Coordinating Work Group

Work group leader K. Savastano reported that data entry, edit and verification for 1986 and 1987 cruises continues. A total of 63 data requests from the SEAMAP system have been received with 61 completed and the remaining two in preparation. Transmission of near-real-time data from the OREGON II will utilize a commercial satellite system and data will be transmitted directly to the Burroughs 7800 computer in Seattle for processing. Delays in FY88 funding will necessitate a slowdown in development of the SEAMAP Data Management System, specifically the procuring of machines for local input and retrieval.

### Plankton Work Group

T. Van Devender reported for work group leader J. Shultz on the conference call meeting of the Plankton Work Group held March 11, 1988 (report attached). Status of SEAMAP samples at the Polish Sorting Center was discussed and the completion of the 1984 samples noted. With the completion of the 865 samples from 1984 cruises, work group members expect sorting at the PSC to proceed in a more timely manner.

Other recommendations included:

- Louisiana discontinue use of 20-cm bongo nets and switch to 60-cm ring bongo nets;
- a request for vessel time to fill in the lack of plankton data from winter months; and
- a request for a work group meeting at the SEAMAP Archiving Center in late April.

By consensus the Subcommittee accepted the work group report.

### Cruise Log

The coordinator reported that a cruise log to indicate SEAMAP station coordinates, date of sampling, types of gear employed and physical parameters measured, has been implemented for 1988 cruises. This will help track data from participants until final entry into the SEAMAP data system and provide requestors of SEAMAP data a brief idea of what information is available for specific dates and locations. At the Subcommittee's request, both SEAMAP and Pascagoula station numbers will be included on the cruise log.

### Budget Initiative

Chairman W. Tatum reported that a group consisting of Alan Huff, Dave Cupka and Paul Sandifer of South Carolina and the Gulf SEAMAP Coordinator accompanied the Gulf States' Executive Director to Washington in early December as a first step in the SEAMAP Budget Initiative. Meetings were scheduled with members of Congress, and key staffers of both Senate and House authorizing and appropriating committees. Information was presented on SEAMAP, its importance and the need to fully fund the program to meet its originally envisioned scope of activities. The group was well-received and encouraged by the

discussions and meetings. An additional effort toward increased FY89 funding of SEAMAP is planned in mid-April. The value of the program for fishery-independent data collection and its cooperative State/Federal working relationship will be highlighted. Testimony before the House Subcommittee on Appropriations by the Gulf States' Executive Director will also stress the importance of SEAMAP to the region.

#### TED Exemption

A. Kemmerer noted that as of March 1, all NOAA vessels as well as state research vessels conducting trawling activities are in violation of TED regulations, unless outfitted with the devices. Since SEAMAP's long-term data base on shrimp and associated groundfish catches and relative abundance would be affected, an exemption for SEAMAP trawls will be sought. Whether a blanket exemption or individual permits for each vessel will be given is unclear. Subcommittee members will be notified as soon as permits are received.

#### Other Business

A request from the Gulf Council for SEAMAP trawl by-catch data was discussed. From the nature of SEAMAP trawl survey designs versus trawling by commercial shrimp vessels, the Subcommittee recognized that by-catch data from the surveys could not be validly extrapolated.

\* A. Huff moved to provide requested trawl data to the Gulf Council, with a statement included, that such data cannot be appropriately related to the industry by-catch. The motion was seconded and passed with one dissenting vote.

Discussion resumed on methods to streamline production of future SEAMAP atlases. Preparation of trawl catch data by stat zone as well as Gulf-wide and separate catch tables for 16-, 20- and 40-ft trawls were cited as areas for possible re-formatting. Accordingly the Chair appointed an ad hoc group, consisting of B. Barrett, D. Waller, S. Nichols, A. Kemmerer and T. Van Devender to examine ways to reduce

production time of future atlases, yet improve the document's usefulness. The group was charged to meet within 30 days to consider possible changes in order that data preparation for the 1986 Atlas could begin in July.

There being no further business, the meeting was adjourned at 5:30 p.m.

## PLANKTON WORK GROUP REPORT

The SEAMAP Plankton Work Group met via conference call on Friday, March 11, 1988. The following members participated:

Joanne Shultz, Leader, GCRL, Ocean Springs, MS  
Gus Zieski, LDWF, Baton Rouge, LA  
Jack Gartner, FDNR, St. Petersburg, FL  
Mark Leiby, FDNR, St. Petersburg, FL  
Don Hoss, NMFS, Beaufort, NC  
Harriet Perry, GCRL, Ocean Springs, MS  
Rick Shaw, LSU, Baton Rouge, LA  
Churchill Grimes, NMFS, Panama City, FL  
Tom Van Devender, SEAMAP Coordinator

An update on the status of samples at the Polish Sorting Center was provided by the Coordinator and Archivist. The last of the 1987 samples received at the Miami Laboratory were crated and shipped to PSC on February 1, 1988 with arrival expected in March.

The remainder of 1984 cruise samples -- BELLOWS-1984 and OREGON II-149 -- have been sorted by PSC, but inadvertently shipped to the Sandy Hook, NJ Laboratory. As soon as these are received at the SAC in St. Petersburg, they will be entered into the system and work on the 1984 Ichthyoplankton Atlas can begin.

Several 1985 and 1986 cruises have been sorted and recently returned to the SAC: OREGON II-151 and Louisiana cruise #14 and #15 for 1985 and CORAL SEA 86-01 and Louisiana #17 for 1986.

The Archivist noted the following number of SEAMAP plankton samples sent to the PSC and level of identification:

1982 . . . . .	650 samples identified to family
1983 . . . . .	682 samples identified to family
1984 . . . . .	865 samples identified to species
1985 . . . . .	366
1986 . . . . .	561
1987 . . . . .	253 + Louisiana's fall samples

Now that the glut of 1984's samples has been completed, it is hoped that processing will proceed in a more timely fashion.

Following discussion on the need for standardized gear, it was the consensus of the work group that Louisiana discontinue use of 20-cm bongo nets and switch to 60-cm ring bongo nets. The stainless steel

ring frames are durable and manageable aboard small vessels. The need to reflect this change to 60-cm nets in the data bank was stressed.

Discussion was held on the upcoming deadline for scheduling time aboard NMFS vessels. The work group noted that there was still a lack of plankton data from the Gulf during the winter months. With interest expressed in the spawning of mullet off the edge of the continental shelf and perhaps the inclusion of the menhaden spawning period, vessel time in January 1989 would be desirable, as would sampling in late February or March for Geryon larvae.

A meeting of the Plankton Work Group has been requested for April 27, 1988 at the Archiving Center in St. Petersburg.



SHRIMP/GROUNDFISH  
WORKING GROUP REPORT

March 21, 1988

TO: Walter Tatum, Chairman, SEAMAP subcommittee

FROM: Philip Bowman, Chairman, Shrimp/Groundfish Work Group

RE: Shrimp/Groundfish Working Group Report

On March 10 members of the SEAMAP Subcommittee's Shrimp/Groundfish Work Group held a conference call to discuss items relative to Shrimp/Groundfish activities for SEAMAP. The items discussed and recommendations made are as follows:

1. The need for and interest in Real Time Data was discussed. It was a consensus of the work group that distribution of Real Time Data be continued. (The Texas representative abstained.)

2. The survey designed for both the spring and fall SEAMAP cruises was discussed. It was the consensus of the work group that the current design was satisfactory and no changes are recommended at this time. However, the suggestion was made that if reductions were necessary due to budget constraints then perhaps during the first pass of Mississippi and Alabama, sampling could be limited to waters inside of 25 fathoms instead of 60 fathoms as is currently done.

3. It was recommended that gear vessel and vessel calibration be continued whenever feasible.

4. There was discussion regarding which units of measure should be used when collecting SEAMAP data. It was the consensus of the work group that all data be recorded in metric units except water depth, which should be recorded in fathoms to be consistent with existing National Marine Fisheries Service catch statistics.

5. It was brought to the attention of the work group that we are still experiencing staffing problems on the "Tommy-Monroe," which are brought about by the additional personnel needed to do day/night sampling. This situation will be discussed in detail when the work group meets to finalize plans and review station locations for the spring SEAMAP cruise. The work group meeting is scheduled for April 19 in New Orleans.

PEB:lhj

SEAMAP DELIVERABLES

1.	SEAMAP Newsletter	Combined	Joint	January 1988 April 1988
2.	Passive Gear Workshop Proceedings			
	a. First draft	SA	Bane	
	b. Final draft	_____	_____	_____
	c. Publication	_____	_____	Summer 1988
3.	Joint Annual Report			
	a. Gulf portion	Gulf	Van Devender	September 1988
	b. SA portion	SA	Bane	September 1988
	c. Final	Combined	Van Devender	October 1988
4.	Marine Directory	Gulf	Van Devender	April 1988
5.	Gulf Atlas			
	a. 1985	Gulf	NMFS/GSMFC	May 1988
	b. 1986	Gulf	NMFS/GSMFC	October 1988
	c. 1987	Gulf	NMFS/GSMFC	October 1989
6.	Admin. Budget			
	a. Gulf	Gulf	Simpson	
	b. SA	SA	Alperin	
7.	Meeting Minutes			
	a. Gulf	Gulf	Van Devender	30 days
	b. SA	SA	Bane	30 days
	c. Joint		Alternate	30 days
8.	Quarterly Reports			
	a. GSMFC	Gulf	Van Devender	Apr, Jul, Oct, Jan
	b. Gulf States	Gulf	State Repr.	do
	c. ASMFC	Bane	Bane	do
	d. Atlantic States	SA	State Repr.	do
9.	Ichthyoplankton Atlas	_____	NMFS	_____
10.	Sciaenops	Gulf	Van Devender	Quarterly

Walter U. Tatum

TCC SEAMAP SUBCOMMITTEE  
CONFERENCE CALL  
Monday, June 27, 1988  
MINUTES

APPENDIX II

Roll was called at 1:35 p.m. Those present on the call were:

Members

Barney Barrett, LDWF, Baton Rouge, LA  
Mark Leiby (proxy for J.A. Huff), FDNR, St. Petersburg, FL  
Scott Nichols, NMFS, Pascagoula, MS  
Paul Hammerschmidt (proxy for G. Matlock), TPWD, Port O'Connor, TX  
Walter Tatum, ADCNR, Gulf Shores, AL  
Dick Waller, GCRL, Ocean Springs, MS

Staff

Tom Van Devender, SEAMAP Coordinator

W. Tatum reported that at the last budget meeting in Puerto Rico, the SEAMAP Committees invited the Caribbean to initiate a SEAMAP program, with hopes of Congress appropriating more money in order for the Caribbean to be fully implemented into the SEAMAP program. W. Tatum stated that at this time Congress has not appropriated any additional funds for the SEAMAP program, however the SEAMAP-South Atlantic has approved \$2,500 from their administrative budget to help the Caribbean develop a program. He requested that the Gulf consider the same.

T. Van Devender noted that the Commission could provide the \$2,500 from their budget provided the 8% cut is not made on the Gulf program.

During discussion it was noted that this "seed money" would be the only monies from SEAMAP to go to the Caribbean group unless additional Congressional funding becomes available.

\* After discussion, D. Waller moved to allocate \$2,500 from SEAMAP administrative funds to the Caribbean SEAMAP providing the additional 8% budget cut is not made on the Gulf program and with the understanding that these monies will be used to complete development of a Caribbean Strategic Plan. Motion was seconded and passed with one opposing vote.

W. Tatum requested SEAMAP members provide him with their financial needs prior to the August budget meeting.

T. Van Devender reported that the 1985 SEAMAP Atlas is currently at the printers and anticipates distribution in August. He also reported

TCC SEAMAP SUBCOMMITTEE  
Conference Call Minutes  
Page -2-

that the Shrimp/Bottomfish Cruise is on schedule with summary mail-outs being distributed weekly. T. Van Devender also reported that all 1985 and some 1986 and 1987 plankton samples have been sorted and returned from the Polish Sorting Center.

The conference call ended at 2:00 p.m.

DRAFT

TCC SEAMAP SUBCOMMITTEE  
 MINUTES  
 August 23, 1988  
 St. Petersburg, Florida

SEAMAP Chairman, Walter Tatum, called the meeting to order at 1:45 p.m. The following members and others were present:

Members

Walter Tatum, ADCNR, Gulf Shores, AL  
 Wayne Swingle, GMFMC, St. Petersburg, FL  
 Dick Waller, GCRL, Ocean Springs, MS  
 Alan Huff, FDNR, St. Petersburg, FL  
 Paul Hammerschmidt, proxy for G. Matlock, TPWD, Port O'Connor, TX  
 Scott Nichols, NMFS, Pascagoula, MS  
 \*Barney Barrett, LDWF, Baton Rouge, LA

Staff

Larry Simpson, GSMFC Executive Director  
 Tom Van Devender, SEAMAP Coordinator  
 Eileen Benton, GSMFC Administrative Assistant

Others

Ken Savastano, NMFS, NSTL Station, MS  
 Andy Kemmerer, NMFS, Pascagoula, MS  
 \*Karen Jo Foote, LDWF, Baton Rouge, LA

Adoption of Agenda

The agenda was adopted as amended with the addition of a discussion regarding the SEAMAP Operations Plan.

Adoption of Minutes

The minutes of the meeting held March 14, 1988 in Gulf Shores, AL were approved as written.

The minutes of the conference call held on June 27, 1988 were approved as written.

Administrative Report

T. Van Devender reported that since the March meeting the 1985 the SEAMAP Atlas and the 1988 SEAMAP Marine Directory have been distributed. He noted that if additional copies of these publications are desired please contact the Commission office. He also reported that five real-time data survey summaries were distributed in June and July 1988 to approximately 270 requestors. The SEAMAP cruise log was distributed representing the Spring Ichthyoplankton and Summer Shrimp/Bottomfish cruises.

\*Late arrival

T. Van Devender reported that the Atlas ad hoc group had met and recommended the following format changes in hopes of streamlining the 1986 Atlas:

- Table 1 (environmental table) should include a column for gear codes.
- Report dominant organisms by statistical zones only.
- Shrimp/Groundfish Work Group should develop methods to convert catch data for 16' and 20' trawls into a standard 40' trawl catch.

T. Van Devender reported that in regard to the additional FY88 budget reduction of 1.37%, the Subcommittee members would either have to amend their FY88 cooperative agreements or NMFS could absorb the cut for each State with repayment from FY89 funds (thus eliminating the need to amend FY88 cooperative agreements). A telephone poll was taken and resulted in the Commission and the State of Louisiana amending their FY88 cooperative agreements, and the States of Mississippi, Alabama and Florida borrowing and repaying with FY89 funds.<sup>1</sup> Texas has already amended their cooperative agreement.

W. Tatum reminded members that if the cooperative agreements showed a reduction in money it would also have to reflect a decrease in effort.

#### Activities and Budget Needs

W. Tatum open discussion with listing current Gulf activities as follows:

- Spring Ichthyoplankton Cruise
- Louisiana Seasonal Surveys (4)
- Summer Shrimp/Groundfish Survey  
(includes piggy-backed plankton sampling)
- Fall (September) Plankton Survey
- Fall Shrimp/Bottomfish Cruise  
(includes piggy-backed plankton sampling)
- Data Management
- Archiving Centers
- Administration

Total SEAMAP-Gulf budget for FY88 was \$498,300.

<sup>1</sup>See SEAMAP-Gulf Minutes of August 25, 1988 for revisions to this statement.

A discussion was held regarding projected needs for additional activities and costs associated with these needs. These activities included:

	Cost
Two additional seasonal surveys	\$30,000
Additional environmental effort	50,000
Increase trawl sampling effort to bi-weekly basis (all states participation -- cost shown only represents Texas costs)	351,000
Development of a Adult Finfish Work Group	-0-
Bottom longlining cruises	?
Winter plankton cruise	20,000
Butterfish Cruise	40,000

Discussions resulted in the following budget requirements by state for FY89. Amounts shown in parentheses are increases based on current FY88 funding.

Texas	\$ 46,000	
Louisiana	196,800	(\$80,000) add two seasonal surveys and additional environmental work
Mississippi	149,500	(\$50,000) add winter plankton survey and butterfish work.
Alabama	78,100	(\$10,000) add butterfish work
Florida	78,900	(\$3,000)
Commission	<u>95,000</u>	
TOTAL	\$644,300	

\* D. Waller moved to establish a work group to develop methodology for offshore adult finfish sampling. Motion seconded and passed unanimously.

The States and NMFS will identify members for this work group and an ad hoc group consisting of the SEAMAP Chairman, P. Hammerschmidt and S. Nichols will develop a formal charge to the work group.

There being no further business the meeting adjourned at 5:45 p.m.



TCC SEAMAP SUBCOMMITTEE  
 MINUTES  
 August 25, 1988  
 St. Petersburg, FL

DRAFT

SEAMAP Chairman Walter Tatum called the meeting to order at 8:15 a.m. The following members and others were present:

Members

Walter Tatum, ADCNR, Gulf Shores, AL  
 Scott Nichols, NMFS, Pascagoula, MS  
 Paul Hammerschmidt (proxy for G. Matlock), TPWD, Port O'Connor, TX  
 Dick Waller, GCRL, Ocean Springs, MS  
 Barney Barrett, LDWF, Baton Rouge, LA  
 Alan Huff, FDNR, St. Petersburg, FL

Staff

Larry Simpson, GSMFC Executive Director  
 Tom Van Devender, SEAMAP Coordinator  
 Eileen Benton, GSMFC Administrative Assistant

Others

Karen Jo Foote, LDWF, Baton Rouge, LA

Adoption of Agenda

The agenda was adopted with the addition of a report on Trawl Calibrations by Scott Nichols.

Review of Joint SEAMAP Budget Split 8/24/88

T. Van Devender distributed a report detailing final figures for the FY89 SEAMAP Program as follows:

NMFS	\$235,100
Gulf	\$497,700
South Atlantic	\$179,200
Caribbean	\$ 30,000

He noted that the Gulf gave up butterflyfish cruises, additional surveys in Louisiana, a winter plankton survey and the additional environmental work. The Gulf's breakdown by state is shown as follows:

GSMFC	\$ 94,000
Texas	46,000
Louisiana	117,200
Mississippi	97,500
Alabama	67,100
Florida	<u>75,900</u>
TOTAL	\$497,700

\*Mississippi noted that they may now amend their FY88 cooperative agreement by 1.37% instead of borrowing the amount from NMFS.

A discussion was held concerning budget splitting problems and it was decided that W. Tatum, A. Huff, A. Kemmerer and the SEAMAP Gulf and South Atlantic Coordinators will meet (possibly on the day before the October 18 Subcommittee meeting) to address issues regarding the budget split.

#### Discussion of Program Review Recommendations

##### SEAMAP Five-Year Operations Plan

The Subcommittee discussed the Five-Year Operations Plan and decided that each member would review the original SEAMAP Operations Plan 1985-1990 and plan to update the document with a target completion date of early 1989.

\* It was the consensus of the Subcommittee that a conference call would be scheduled in September in order for Subcommittee members to report on what sections of the current Operations Plan would require revision. A discussion would also be held on ways to incorporate the other two SEAMAP components into the Five-Year Plan.

The Chairman will notify the South Atlantic group of this action.

The Subcommittee requested that the SEAMAP October 18 meeting be extended to all day to further discuss the Five-Year Operations Plan.

The Subcommittee also discussed the need for developing a protocol for voting issues between the SEAMAP components.

\* D. Waller moved that each State be formally requested to name a designee to the SEAMAP Subcommittee. Seconded and passed unanimously.

Annual Operations Plan

It was the consensus of the Subcommittee that each state and NMFS provide their FY89 cooperative agreement to the Coordinator in order for him to compile and summarize activities for the Annual Operations Plan.

August Joint Meeting

It was the consensus of the Subcommittee that the 1989 August Joint Meeting will be held in Savannah, GA or Jacksonville, FL.

Discussion on Adult Finfish Work Group

P. Hammerschmidt, S. Nichols and W. Tatum will informally meet on Monday, October 17 to discuss the charge of the Adult Finfish Work Group and will report back to the Subcommittee at its scheduled meeting the following day.

SEAMAP Initiative

\* After discussion of the SEAMAP Initiative, P. Hammerschmidt moved that all alternatives and combinations with other Southeast initiatives be fully investigated by the Subcommittee. The motion was seconded and passed with abstention by the NMFS representative.

Other Business

Trawl Calibration

S. Nichols reported on trawl calibration factors for reducing the number of tables in the 1986 Atlas. He stated that due to the low number of data points (9) it was necessary to conduct comparisons utilizing catch of each species. In the paired tests, OREGON II catches were 50% of those of the R/V PELICAN and 40% of those of the R/V TOMMY MUNRO. Insufficient catches were noted for the Texas paired trawl tests.

S. Nichols recommended that all SEAMAP trawls be remeasured and that further paired tests be conducted whenever cruise schedules permit.

There being no further business, the meeting adjourned at 11:40 a.m.

DRAFT

TCC SEAMAP SUBCOMMITTEE  
Conference Call Minutes  
September 8, 1988

Roll was called at 2:00 p.m. Those present on the call were:

Members

Walter Tatum, ADCNR, Gulf Shores, AL  
Alan Huff, FDNR, St. Petersburg, FL  
Scott Nichols, NMFS, Pascagoula, MS  
Paul Hammerschmidt (proxy for G. Matlock), TPWD, Port O'Connor, TX

Staff

Tom Van Devender, SEAMAP Coordinator

For the October 17 Data Coordinating Work Group meeting to be held jointly with the SEAMAP-South Atlantic's Data Management Work Group, K. Savastano had requested from the Coordinator additional representation from the Gulf, specifically, those personnel within each state who would be responsible for input of data into the SEAMAP Data System.

T. Van Devender reported that administrative monies for travel were sufficient to pay for the additional travel costs and meet projected needs for the remainder of the year.

The Coordinator requested approval to bring additional people to the Data Coordinating Work Group meeting and asked each Subcommittee member to identify a representative to attend.

\* A. Huff moved to authorize travel reimbursement for additional state representatives to attend the upcoming Joint Data Management Work Group meeting. The motion was seconded and passed unanimously.

W. Tatum identified Skip Lazauski to attend; A. Huff named David Camp and P. Hammerschmidt named Terry Cody. Though not on the conference call, the Coordinator reported that D. Waller had identified Terry McBee to attend and B. Barrett had named Jim Hanifen.

With no other business, the conference call was concluded at 2:15 p.m.

DRAFT

TCC SEAMAP SUBCOMMITTEE  
Conference Call Minutes  
September 30, 1988

Chairman Walter Tatum called roll call at 9:17 a.m. The following members and staff were present:

Members

Walter Tatum, ADCNR, Gulf Shores, AL  
Barney Barrett, LDWF, Baton Rouge, LA  
Alan Huff, FDNR, St. Petersburg, FL  
Paul Hammerschmidt (proxy for G. Matlock), TPWD, Port O'Connor, TX  
Dick Waller, GCRL, Ocean Springs, MS  
Scott Nichols, NMFS, Pascagoula, MS

Staff

Tom Van Devender, SEAMAP Coordinator

The SEAMAP Coordinator noted that as requested at the SEAMAP-Gulf meeting held August 25, 1988 in St. Petersburg this discussion was scheduled to permit each Subcommittee member time to review the SEAMAP Operations Plan: 1985-1990 and identify sections in need of revision. The revised Operations Plan could then be incorporated into a SEAMAP Five-Year Management Plan, as recommended in the Program Review, and include operations for the South Atlantic and Caribbean components. Development of an Annual Operations Plan was also scheduled for discussion.

It was the consensus of the Subcommittee that since the SEAMAP meeting scheduled for October 18, 1988 in San Antonio had subsequently been expanded from one-half to a full day, the SEAMAP Five-Year Management Plan could be more appropriately addressed then rather than over the telephone.

T. Van Devender requested that members send him Statements of Work from each Cooperative Agreement, as developed, to aid in drafting an Annual Operations Plan. A draft for the Gulf will be an agenda item for discussion in San Antonio.

T. Van Devender reported that the September Ichthyoplankton Cruise was currently underway with the OREGON II and R/V TOMMY MUNRO completing the sampling grid. He also noted that plans are being finalized for the November Shrimp/Groundfish Cruise and discussed the possibilities of additional gear comparisons between standard SEAMAP 40-ft trawls and the 16- and 20-ft nets.

There being no further business the conference call ended at 9:37 a.m.



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