SEAMAP
ANNUAL REPORT

to the
Technical Coordinating Committee
Gulf States Marine Fisheries Commission

October 1, 1990 to September 30, 1991

SEAMAP Subcommittee
Walter Tatum, Chairman

September 30, 1991

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TO THE

TECHNICAL COORDINATING COMMITTEE

GULF STATES MARINE FISHERIES COMMISSION

OCTOBER 1, 1990 TO SEPTEMBER 30, 1991

SEAMAP SUBCOMMITTEE

WALTER M. TATUM, CHAIRMAN

DAVID DONALDSON

SEAMAP COORDINATOR

SEPTEMBER 30, 1991

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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 Federal Fiscal Years 1985-1991 (October 1 through September 31). State and Gulf States Marine Fisheries Commission (GSMFC) funding allocations for FY1985-FY1991 were handled through State-Federal cooperative agreements, administered by SERO and the Southeast Fisheries Center (SEFC), National Marine Fisheries Service (NMFS).

In FY1991, SEAMAP operations continued for the tenth consecutive year. SEAMAP resource surveys included the Fall Shrimp/Groundfish Survey, Louisiana seasonal trawl surveys, Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Fall Plankton Survey and plankton and environmental data surveys. Special projects for FY1991 consisted of the Status and Trends Benthic Surveillance Project. Other FY1991 activities included SEAMAP information services and program management. Resource survey areas in FY1991 are shown in Figure 1.

This report is the eleventh 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 FY1991 and proposed SEAMAP activities for FY1992.

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.

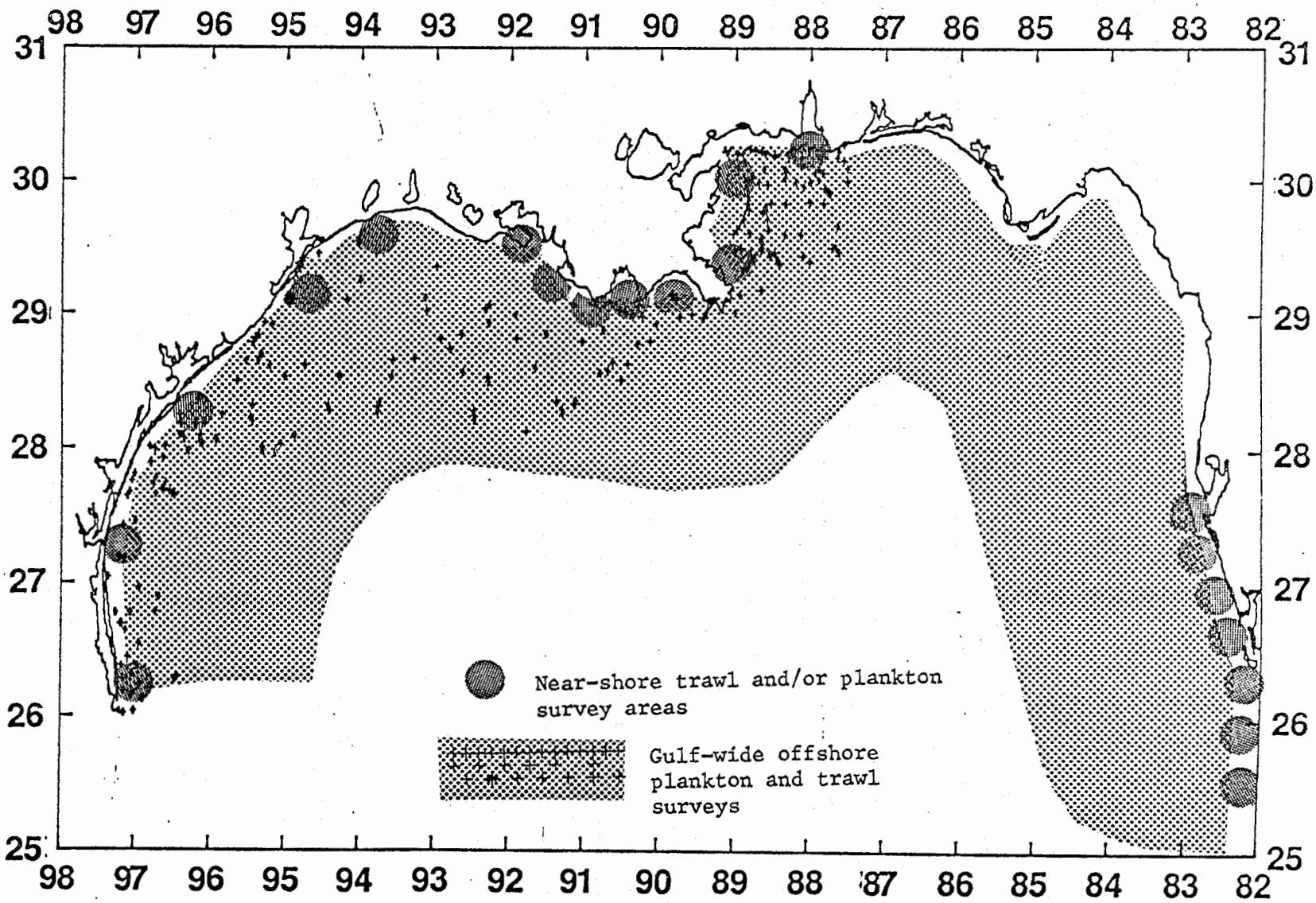


Figure 1. 1991 SEAMAP Survey Areas

1991 SEAMAP RESOURCE SURVEYS

FALL SHRIMP/GROUNDFISH SURVEY

The 1990 Fall Shrimp/Groundfish Survey was conducted from October 12 - December 7, 1990, from off Mobile, Alabama 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 370 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 to:

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

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

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

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

During the survey the NOAA Ship OREGON II sampled 232 stations in offshore waters and territorial Louisiana and Texas waters. The R/V TOMMY MUNRO sampled 24 stations in Mississippi territorial and offshore waters. The R/V PELICAN sampled 21 stations in Louisiana territorial and offshore waters. Texas vessels sampled 80 stations within territorial waters. And the R/V VERRILL sampled 13 stations in Alabama territorial waters. The area sampled is shown in Figure 2.

Ichthyoplankton data were collected by NMFS and Louisiana vessels, at sample sites occurring nearest to half-degree intervals of latitude/longitude. A total of 43 stations was sampled with bongo and/or neuston nets, as encountered along cruise tracks. NMFS completed 39 ichthyoplankton stations and Louisiana completed 4 stations. The samples, except those taken by Louisiana, will be sorted by the Polish Sorting Center. Once sorted, the specimens and data will be archived at the SEAMAP Archiving Centers.

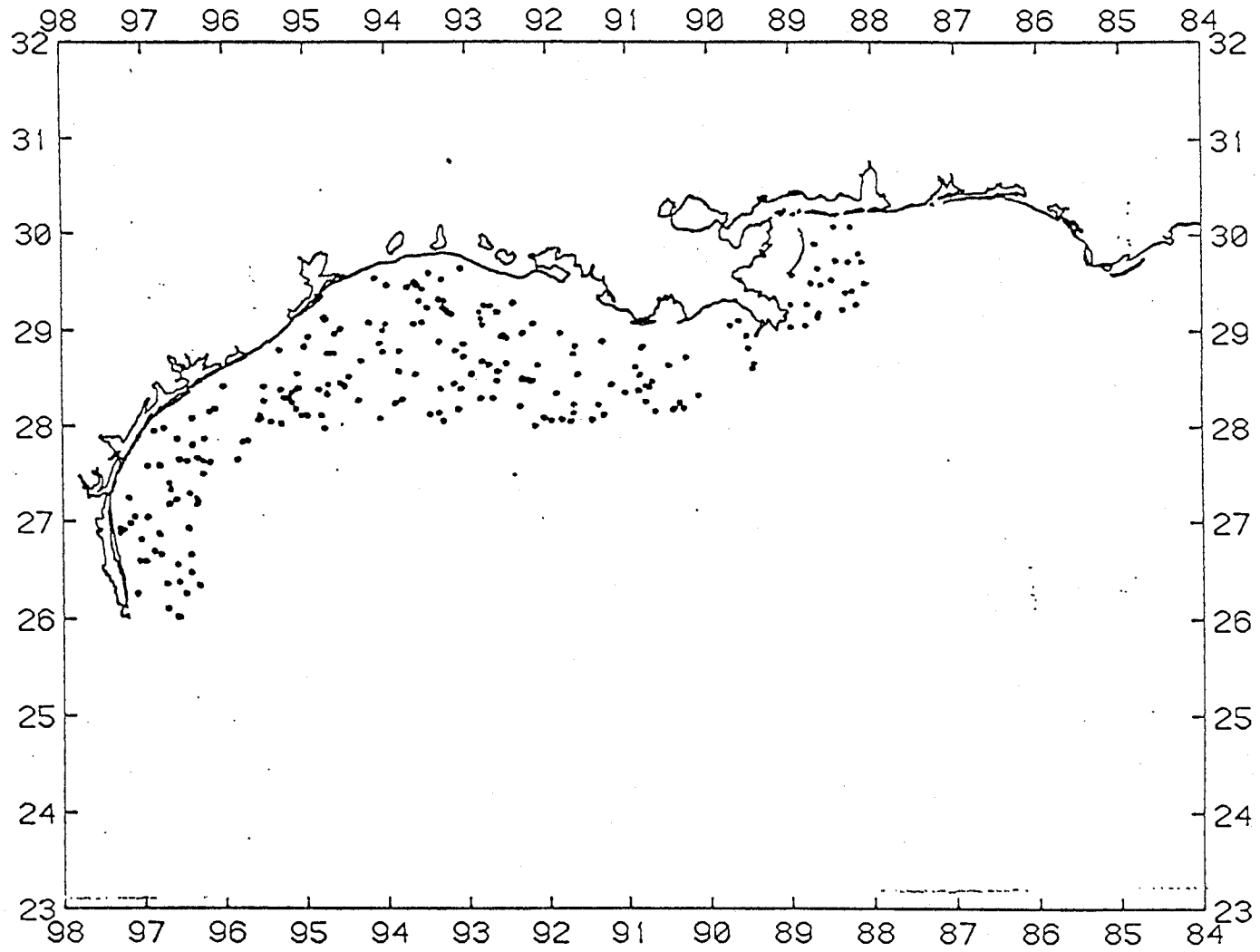


Figure 2. Fall 1990 SEAMAP Shrimp/Groundfish Survey

LOUISIANA SEASONAL DAY/NIGHT SURVEYS

The Louisiana Department of Wildlife and Fisheries (LDWF) conducts seasonal day and night surveys as part of its continuing effort to provide comparative information on the abundance and distribution of critical life stages 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 1990 and in April and July 1991 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 during day and night at depths of 20 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 as well. The area sampled covered Louisiana territorial and EEZ waters from 89 00' to 93 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 surveys were conducted in conjunction with SEAMAP Summer and Fall Shrimp/Groundfish surveys in the EEZ, using 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 archived and sorted at the LDWF Plankton Laboratory. Specimens and data will be shipped to the SEAMAP Archiving Center in St. Petersburg, Florida.

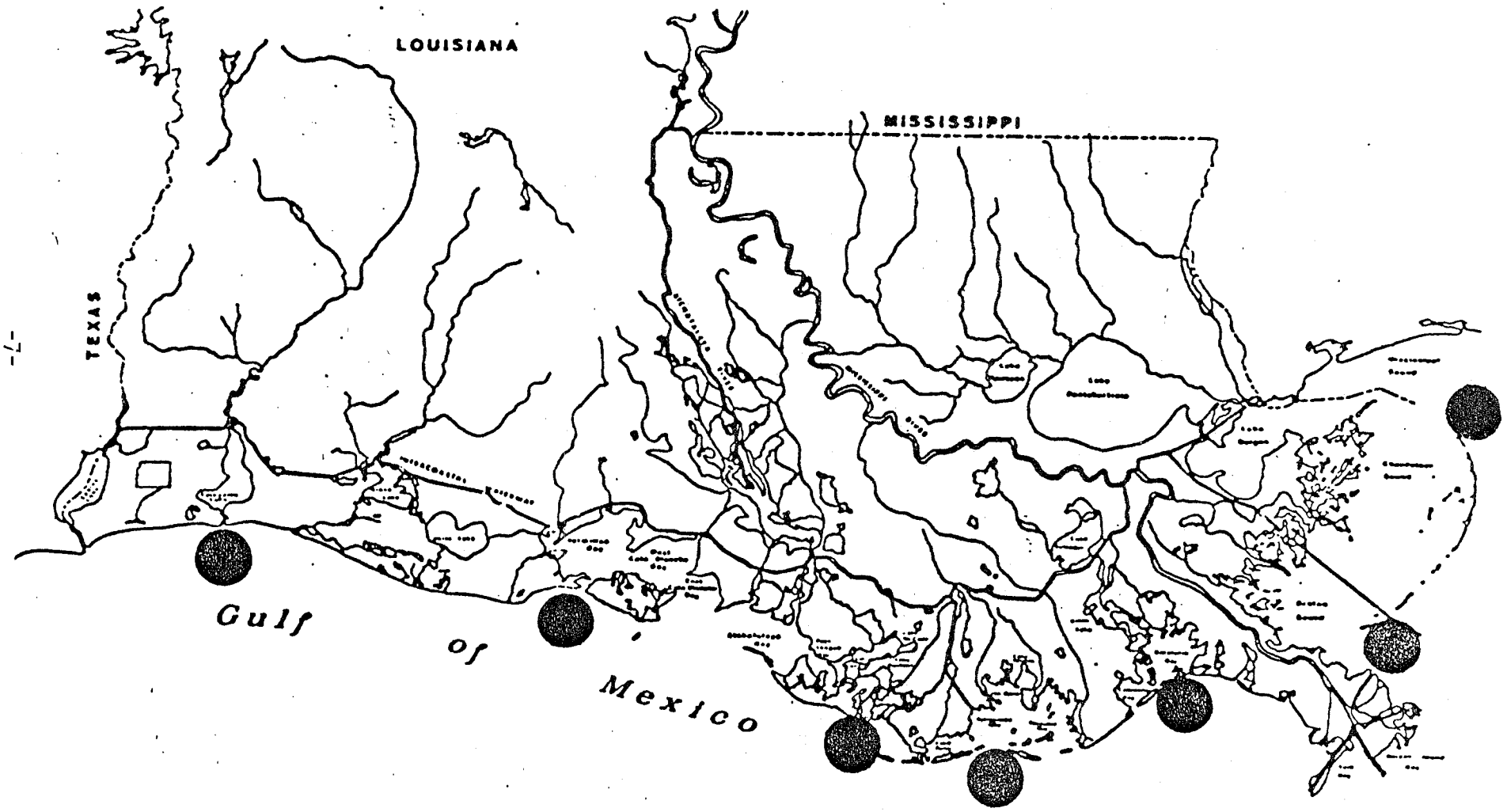


Figure 3. General Location of Territorial Sea Transects, 1990-1991 Louisiana Seasonal Trawl Surveys

SPRING PLANKTON SURVEY

For the ninth 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 sampled offshore waters from the western edge of the West Florida Shelf to the Texas-Louisiana border from April 16 to May 23, 1991 (Figure 4).

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. Right bongo and neuston samples were initially preserved in 10% buffered formalin and after 48 hours were transferred to 95% ethyl alcohol for final preservation. Left bongo samples were preserved via an ethanol/ethanol transfer to aid in preservation of larval otoliths.

A total of 150 stations was sampled. The OREGON II sampled 137 stations and the R/V HERNAN CORTEZ II sampled 13 stations along the west Florida shelf. Inclement weather prevented the OREGON II from sampling 19 station sites.

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

Right bongo and neuston samples collected by Florida from SEAMAP stations will be stored until an alternative sorting center can be selected to replace the Polish Sorting Center (PSC). Left bongo samples are currently archived at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi. Salinity data from the Florida vessels were sent to the NMFS Mississippi Laboratories for interpretation.

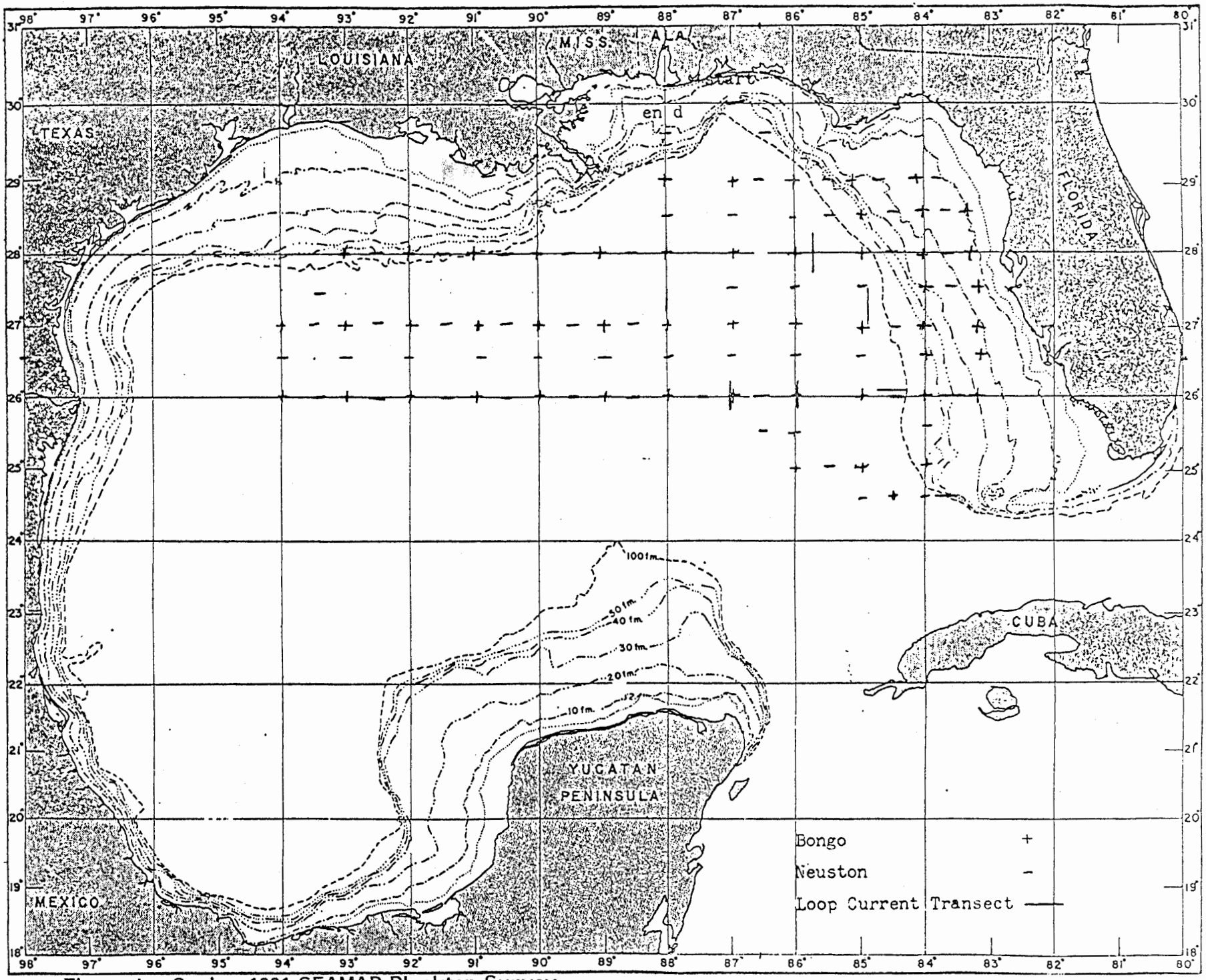


Figure 4. Spring 1991 SEAMAP Plankton Survey

SUMMER SHRIMP/GROUNDFISH SURVEY

A planning meeting of the Shrimp/Bottomfish Work Group was held in May 1991 to examine the design for the 1991 Summer Shrimp/Groundfish Survey and determine the random station locations for each participant. Objectives of the survey were to:

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

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

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

The overall sampling strategy during the 1991 SEAMAP summary 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 3 to July 13, 1991.

During the survey, the NOAA Ship OREGON II and R/V TOMMY MUNRO sampled offshore and inshore Gulf waters with 40-ft trawls. Alabama's R/V VERRILL sampled offshore Alabama waters with 40-ft trawls. The R/V PELICAN sampled both Louisiana state waters and offshore waters with 40-ft trawls, and Texas vessels sampled Texas state waters and offshore waters with 20-ft trawls. The sampling stations are shown in Figures 5-7.

A total of 370 trawl samples was taken from coastal and offshore waters out to 50 fm from Mobile Bay, Alabama, to Brownsville, Texas. All vessels took environmental data, including temperature, salinity, oxygen, and chlorophyll at each station.

In June, with one station sampled on July 13, catch rates of brown shrimp east of the River were very low, with a maximum catch of 14.7 lb/hr of 13-count shrimp. White shrimp catches east of the River were all less than 2 lb/hr. The largest pink shrimp catch rate east of the River was 21.9 lb/hr of 51-count shrimp taken in 17 fm of water off Mobile Bay, Alabama. Finfish catch rates east of the River were moderate, with the largest catch of 2,020 lb/hr with Atlantic croaker predominating.

Moderate catches of brown shrimp were also made off Texas from June 3 to June 30. The largest catch rate occurred June 20 in waters between Corpus Christi and Brownsville in 13 fm (372.5 lb/hr of 62-count shrimp). White shrimp catches off Texas were low with the largest catch, 39.7 lb/hr of 15-count shrimp, taken southeast of Galveston in 9 fm. Catch rates for pink shrimp were low off Texas, though the largest catch was 84.8 lb/hr of 40-count shrimp southeast of Galveston Bay in 12 fm. Finfish catch rates were moderate in Texas inshore and offshore waters. The largest catch of finfish was 2,799 lb/hr in 13 fm between Corpus Christi and Brownsville with silver eels predominating. Several areas of low bottom dissolved oxygen were located along the Texas coast inside 10 fm.

In July's samples west of the river (Louisiana) brown shrimp catches were low with the largest catch rate of 47.3 lb/hr of 37-count shrimp occurring southeast of Barataria Bay in 22 fm. White shrimp catches were low, with a maximum catch rate of 17.1 lb/hr of 29-count shrimp taken in 4 fm southeast of Calcasieu Lake. Catches of pink shrimp were very low off the Louisiana coast with a maximum catch rate of 5.8 lb/hr of 18-count shrimp. Finfish catch rates were also low with the largest catch rate of 774 lb/hr taken on July 5 with Atlantic croaker predominating.

An area of low bottom dissolved oxygen (less than 2 ppt) occurred off Louisiana between Cameron, Louisiana and the Mississippi River in depths of 6 to 22 fms.

Figure 5.

Summer 1991 SEAMAP Shrimp/Groundfish Survey

June 3 - July 13

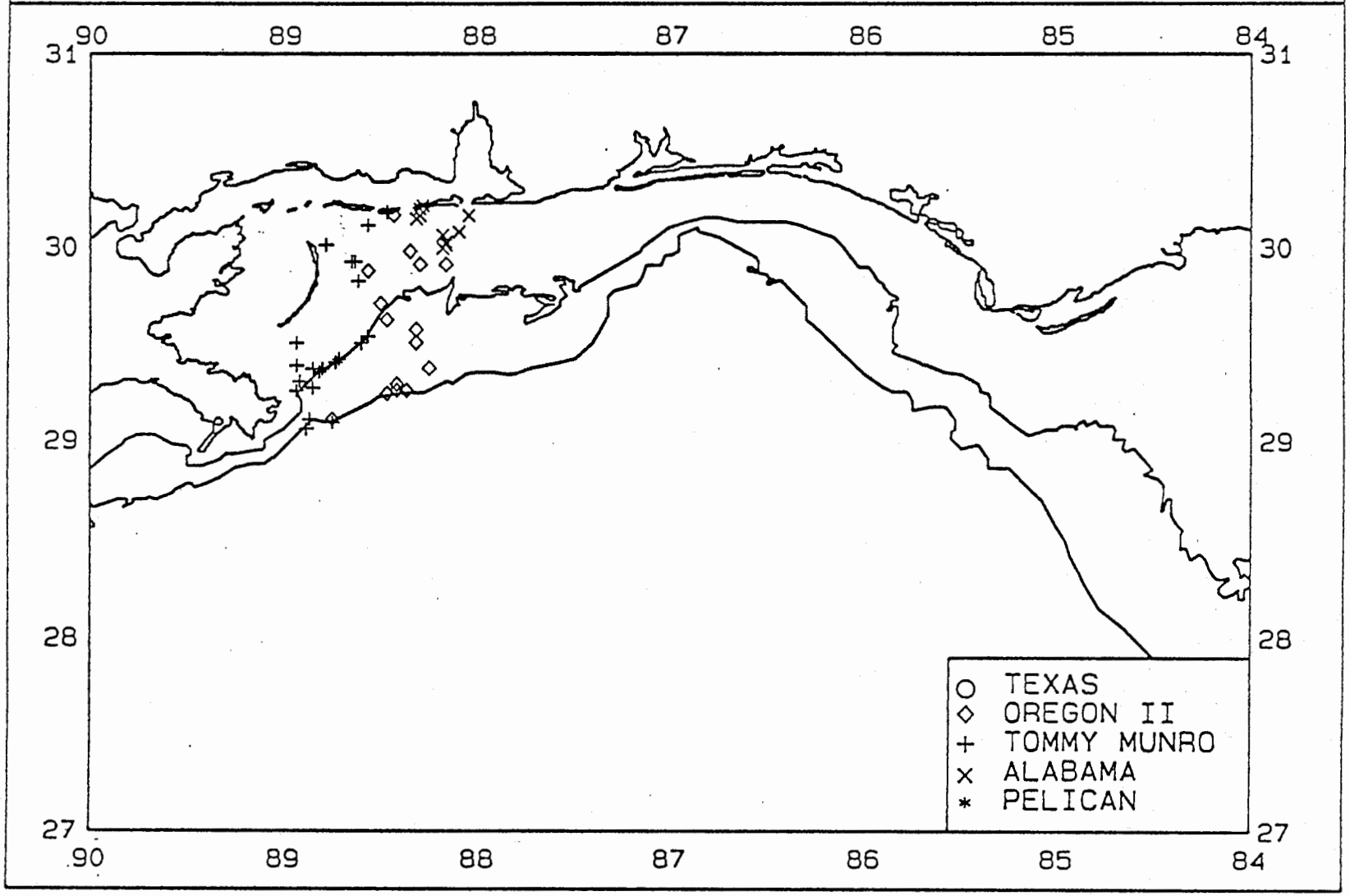


Figure 6.

Summer 1991 SEAMAP Shrimp/Groundfish Survey

June 3 - July 13

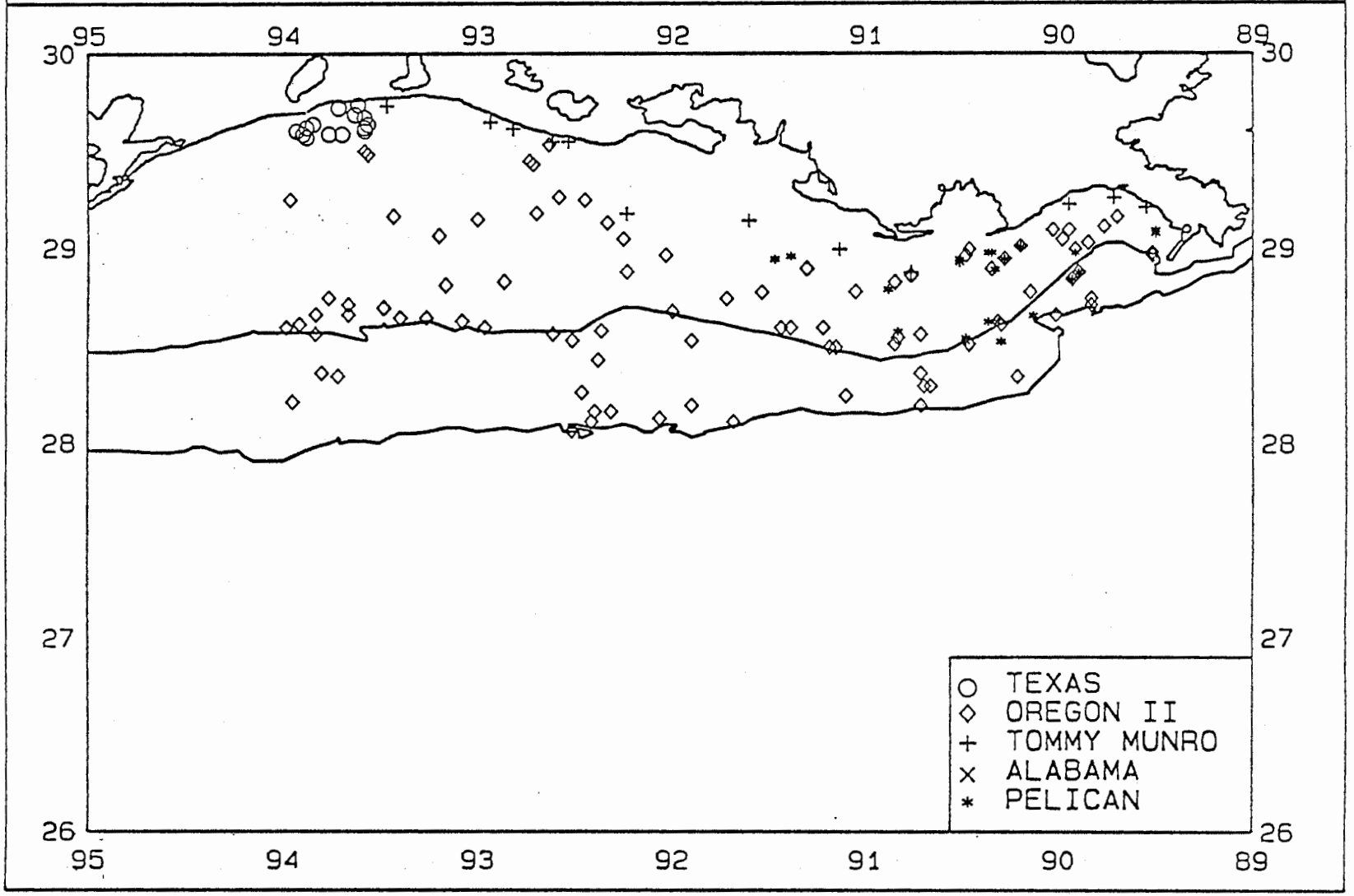
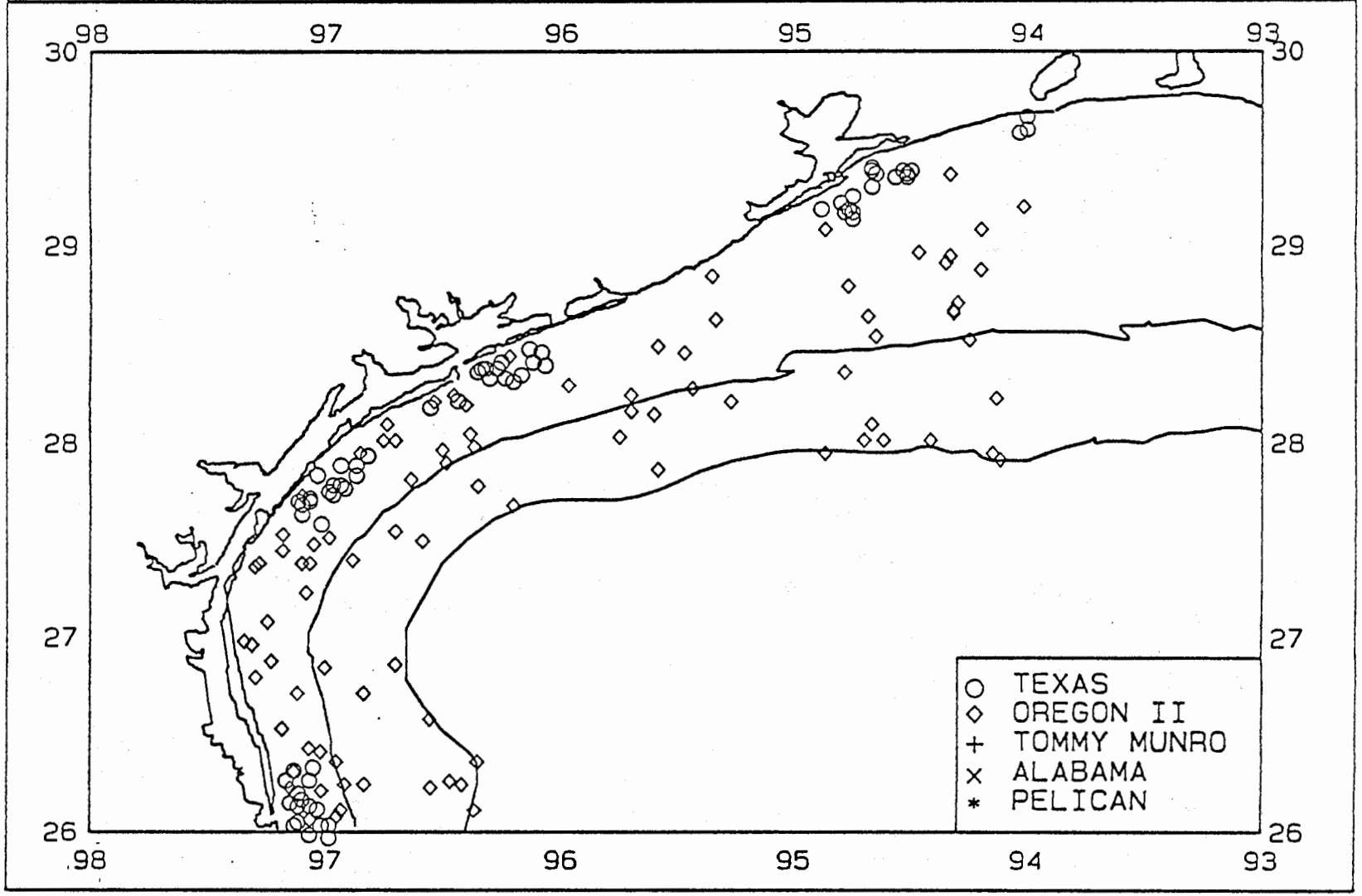


Figure 7.

Summer 1991 SEAMAP Shrimp/Groundfish Survey

June 3 - June 30



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 1986-1990 and in the current year covered Gulf waters from Florida Bay to Brownsville, Texas. Vessels from Florida, Alabama, Mississippi and NMFS surveyed from August 21 through September 30, 1991. Louisiana vessels are scheduled to sample from September 30 to October 4, 1991.

The NOAA Ship OREGON II sampled stations from Tampa Bay, Florida to Brownsville, Texas at depths from 5 to 100 fm. Chlorophyll samples were filtered at each station. Florida's R/V HERNAN CORTEZ sampled stations from off Tampa Bay south to the Ten Thousand Island area. Stations were located along a 30-minute latitude/longitude grid from inshore waters to the shelf edge. An Alabama vessel sampled stations at the mouth and outside Mobile Bay. The R/V TOMMY MUNRO sampled stations south of Mississippi Sound along a 30-minute grid. The R/V PELICAN has begun sampling and will continue to collect information during October. The sample area is shown in Figure 8.

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 collected by the states will be stored until an alternative sorting center can be selected. 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.

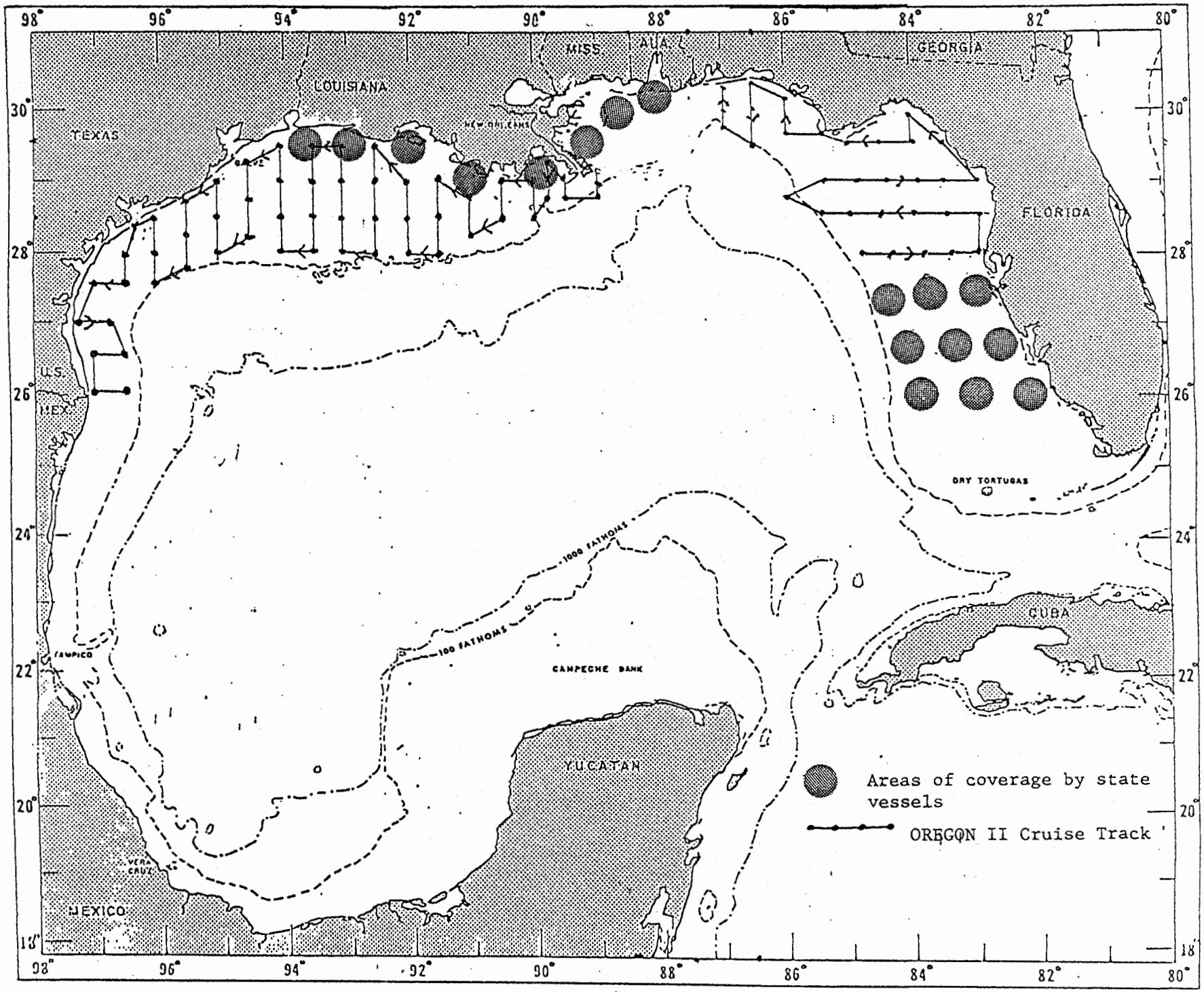


Figure 8. Fall 1991 SEAMAP Plankton Survey

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, plankton tows were piggybacked on the NMFS and state vessels, sampling randomly generated trawl stations within the standard 30-minute 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.

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. Wind direction, wind speed and wave height were taken at all trawl stations.

Samples from the right side of the bongo nets and neuston samples were stored at state facilities until an alternative sorting center can be selected. Once a new center has been chosen, the samples will be sorted to the family level (both ichthyoplankton and selected crustacean and molluscan species). The left bongo sample from each station is retained as a back-up in the event of damage or loss of the specimens and maintained at the 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 1991, as detailed earlier.

1991 SEAMAP SPECIAL PROJECTS

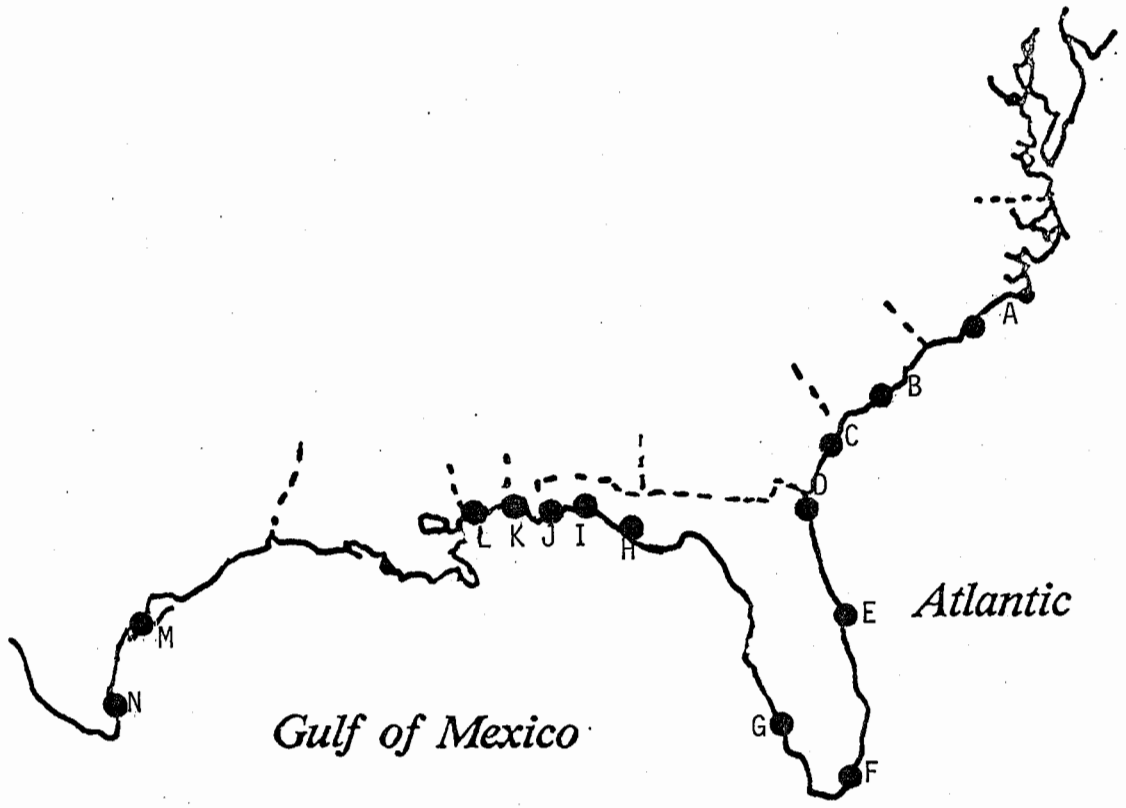
STATUS AND TRENDS BENTHIC SURVEILLANCE PROJECT

For the eighth 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 SEAMAP-South Atlantic supplied personnel from state fishery management agencies to provide guidance in locating concentrations of the target species, Atlantic croaker and spot.

Sampling methodologies in the 1991 Benthic Surveillance Project were identical to those of the five previous surveys. Gulf sites included: Charlotte Harbor (FL), St. Andrews Bay (FL), Choctawhatchee Bay (FL), Pensacola Bay (FL), Pascagoula River (MS), Heron Bay (MS), San Antonio Bay (TX) and Lower Laguna Madre (TX). South Atlantic sites sampled in the fall 1991 included: Cape Fear (NC), Charleston Harbor (SC), Sapelo Sound (GA), St. John's River (FL), Indian River Lagoon (FL) and Biscayne Bay (FL). The locations of sampling sites are shown in Figure 9.

Sampling started on August 25 and is continuing to date, 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 (NC) Laboratory.

A list of publications produced under NOAA's National Status and Trends Program is available from NOAA, National Status and Trends Program, N/OMA32, 11400 Rockville Pike, Rockville, MD 20852.



SAMPLE SITES

A. Cape Fear River
B. Charleston Harbor
C. Sapelo Sound
D. St. John's River
E. Indian River Lagoon
F. Biscayne Bay
G. Charlotte Harbor
H. St. Andrews Bay
I. Choctawhatchee Bay
J. Pensacola Bay
K. Pascagoula River
L. Heron Bay
M. San Antonio Bay
N. Lower Laguna Madre

Figure 9. Status and Trends Benthic Surveillance Project Sampling Sites

INFORMATION SERVICES

INFORMATION SERVICES

Information from the 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-Gulf 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-Gulf surveys during 1982-1989 have been entered into the system and data from 1990 and 1991 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. A total of 104 SEAMAP data requests has been 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. To date, 102 requests have been completed and work is being performed on those remaining.

Requested SEAMAP data were used for a multitude of purposes in FY1991:

- 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 dissolved oxygen.
- Identifying environmental parameters associated with concentrations of larval finfish.
- Compiling the 1983 - 1989 SEAMAP Biological and Environmental atlases.
- Comparing catches of shrimp and groundfish captured by 40-ft versus 20-ft trawl nets.
- Compiling the 1984 - 1987 SEAMAP Ichthyoplankton Atlas.

DATA MANAGEMENT

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

Work was completed during FY1990 on the new distributed SEAMAP Data Management System. New modules completed include those for data entry, edit, upload, data query, and download. Delivery of the remaining PS/2's has been completed and all of the Gulf States are now equipped with the necessary computer hardware and software.

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

This new system overcomes the deficiencies of the old system (i.e., the time necessary to enter and retrieve data) and provides powerful and flexible local data analysis and display capabilities. Under the new system, each SEAMAP site enters, verifies and edits its data, eliminating the mail-oriented loop necessary to enter/edit/verify data under the old system. Secondly, each site has the capability of locally accessing SEAMAP data, utilizing a user-friendly system. Local data retrieval allows the data to be accessed in a timely manner with a minimum amount of effort and programming skills.

Under the new system, outside users (e.g., Minerals Management Service, U.S. Army Corps of Engineers, etc.) may continue to request special data sets for research or study. The outside users submit the request to the SEAMAP Subcommittee through the SEAMAP-Gulf Coordinator for approval to proceed. Once the request is approved, the information is provided by the Data Manager and staff members through a priority-based, mail-oriented system. Also, SEAMAP participants may use the Special Request mechanism for data sets too large for economical downloading by telephone. 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 1991 was the processing of catch data from the Summer Shrimp/Groundfish Survey as near-real-time data. Data were transmitted three times weekly via cellular phone to the NMFS Mississippi Laboratories from the NOAA vessel, while the states' data were entered into the system weekly. Plots of station locations and catch rates of shrimp, squid and dominant finfish species were prepared and edited at the NMFS Mississippi Laboratories, 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. In addition, a questionnaire concerning the usefulness of SEAMAP real-time data was included in the first mailing. The results show the majority of participants view SEAMAP data as very beneficial to their efforts. Representative listings are shown in Figures 10-17.

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WN39	7/11/91	28-31.9	90-28.2	20	20	30.7	23.7		2.7	ST	43	1	2.5	190.9	7	43	46	0	0	0

SPECIES:BROWN WEIGHT: 2.425 NUMBER: 70 MODE: 0/ 0
LEN(MM)/FREQ. 100/ 3 110/ 9 120/ 15 130/ 16 140/ 4 150/ 11 160/ 4 170/ 5 180/ 2

SPECIES:WHITE WEIGHT: .110 NUMBER: 1 MODE:195/ 1
LEN(MM)/FREQ. 190/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WN43	7/12/91	28-21.7	90-13.5	00	35	30.8	21.9		4.6	ST	56	1	7.2	54.9	7	0	1	0	116	7

SPECIES:BROWN WEIGHT: 7.165 NUMBER: 77 MODE: 0/ 0
LEN(MM)/FREQ. 130/ 7 140/ 12 150/ 10 160/ 11 170/ 14 180/ 7 190/ 12 200/ 3

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WN45	7/12/91	28-40.4	90-01.8	02	45	30.1	21.1		4.2	ST	10	1	.2	43.0	3	0	3	0	54	7

SPECIES:BROWN WEIGHT: .220 NUMBER: 2 MODE: 0/ 0
LEN(MM)/FREQ. 130/ 1 160/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WN46	7/12/91	28-43.0	89-50.7	05	50	29.9	18.2		4.4	ST	55	1	.2	365.7	261	0	0	0	0	0

SPECIES:BROWN WEIGHT: .198 NUMBER: 2 MODE: 0/ 0
LEN(MM)/FREQ. 160/ 1 180/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WD43	7/12/91	28-45.9	89-50.6	07	35	29.8	20.8		3.3	ST	19	1	1.3	36.2	0	0	0	0	26	22

SPECIES:BROWN WEIGHT: 1.323 NUMBER: 26 MODE:140/ 3
LEN(MM)/FREQ. 130/ 4 140/ 5 150/ 9 160/ 2 170/ 1 180/ 1 190/ 2 200/ 1

PLAT	STATION	DATE	LAT	LONG	TIME	DEP FMS	TEMPS,C SUR	TEMPS,C BOT	CHLOR MG/M3	GEAR BDO	GEAR TYPE	MIN FISH	MIN TOWS	MIN SHRIMP	MIN FINFISH	LBS CRK	LBS SPT	LBS TRT	LBS CAT	LBS OTHER	LBS
1	WD32	7/12/91	28-58.9	89-31.3	11	13	30.0	25.3		1.9	ST	10	1	.9	26.7	0	0	5	0	26	17

SPECIES:BROWN WEIGHT: .661 NUMBER: 18 MODE:101/ 3
LEN(MM)/FREQ. 90/ 2 100/ 4 110/ 2 120/ 4 130/ 1 140/ 2 160/ 1

SPECIES:WHITE WEIGHT: .243 NUMBER: 5 MODE:152/ 2
LEN(MM)/FREQ. 150/ 4 160/ 1

Figure 10. Real-Time Data Listing, Summer 1991 SEAMAP Shrimp/Groundfish Survey

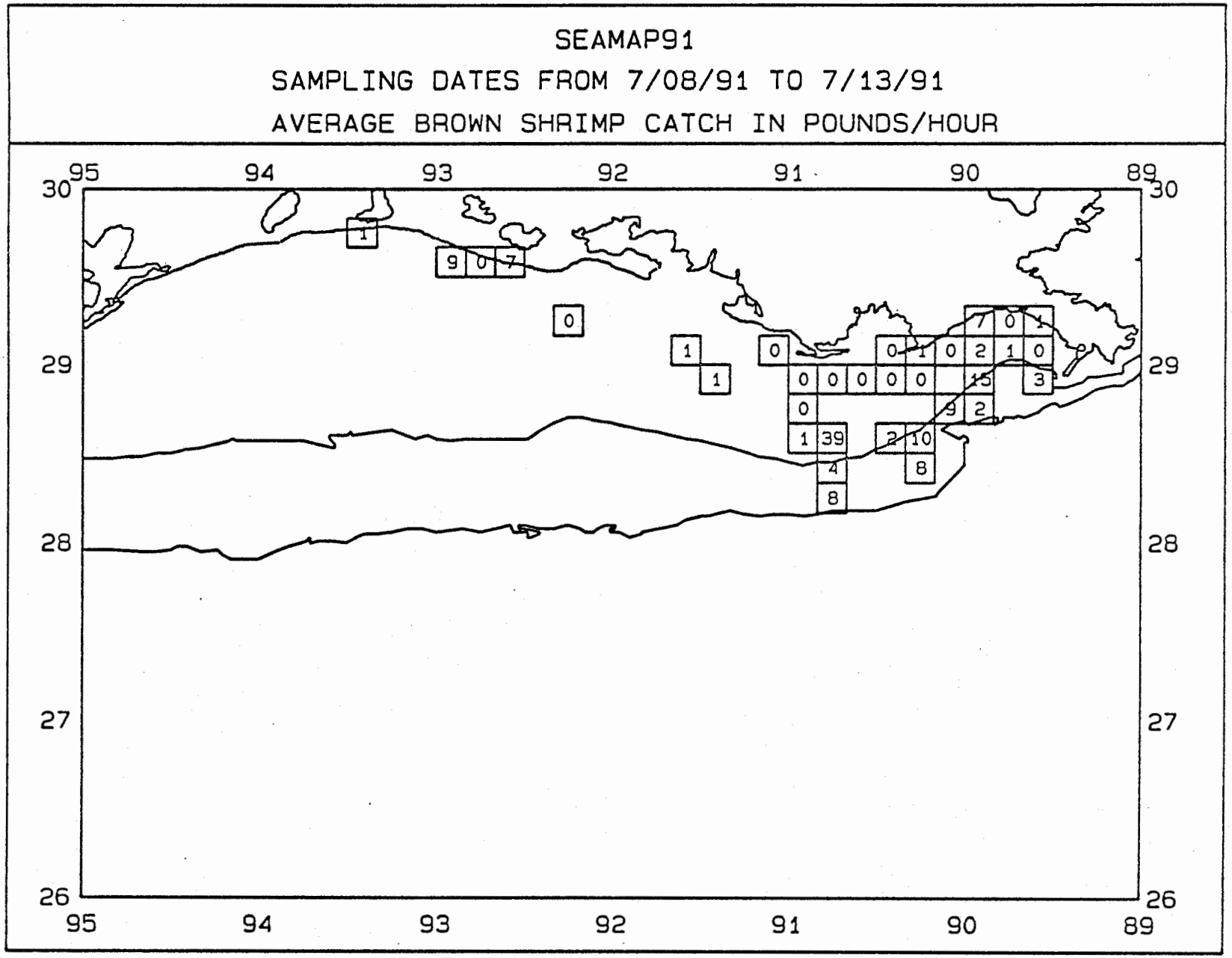


Figure 11. Real-Time Data Catch Plots, 1991

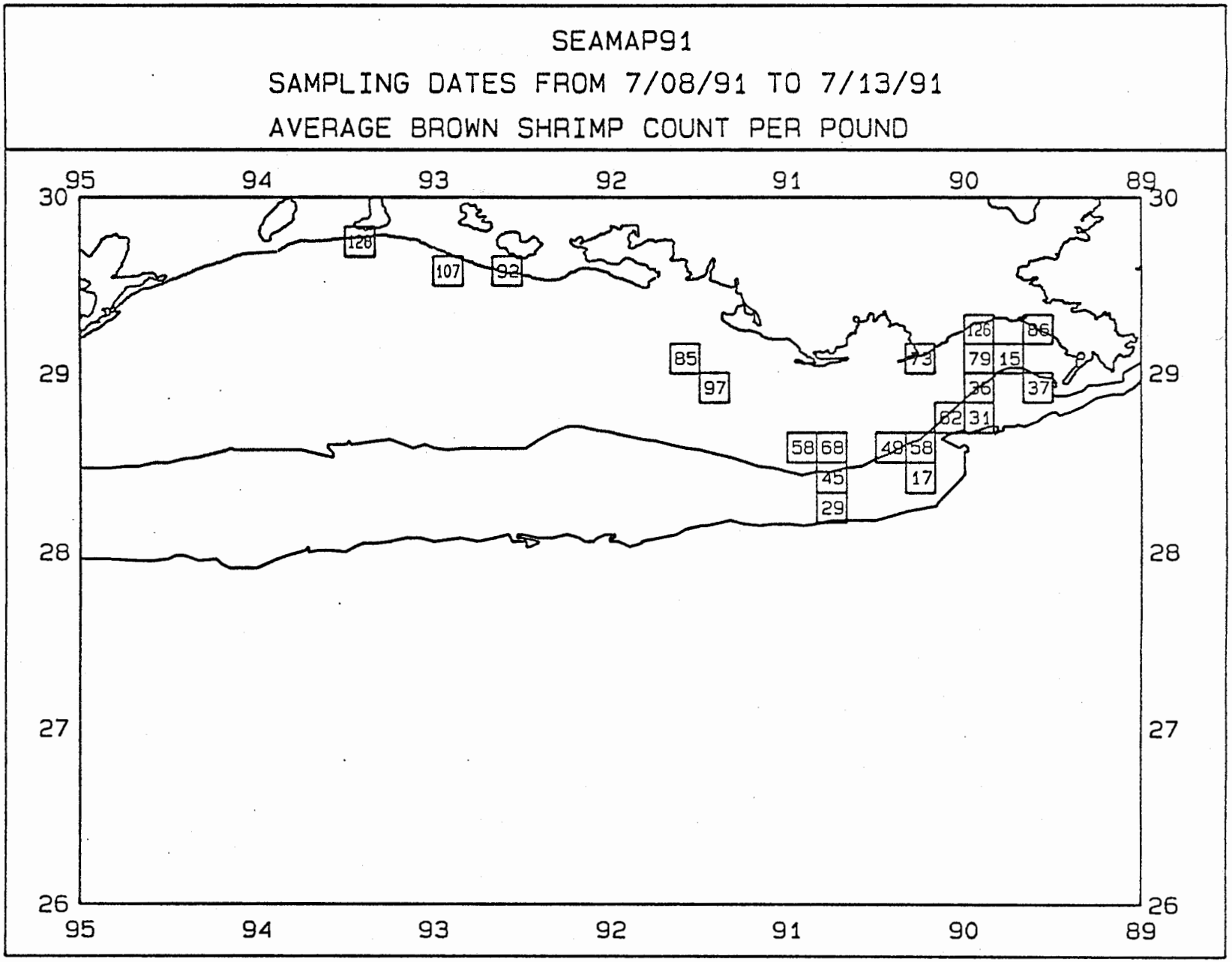


Figure 12. Real-Time Data Catch Plots, 1991

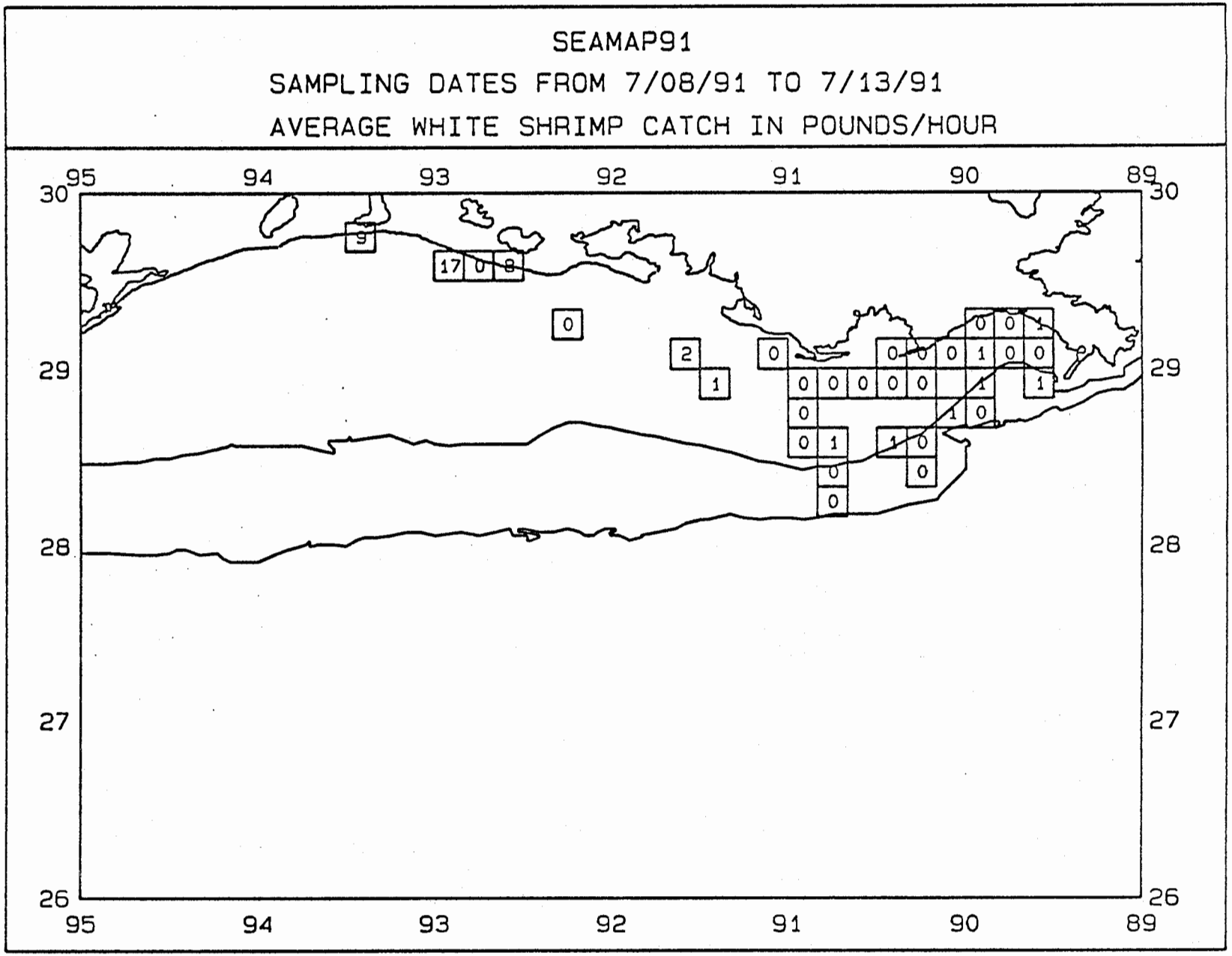


Figure 13. Real-Time Data Catch Plots, 1991

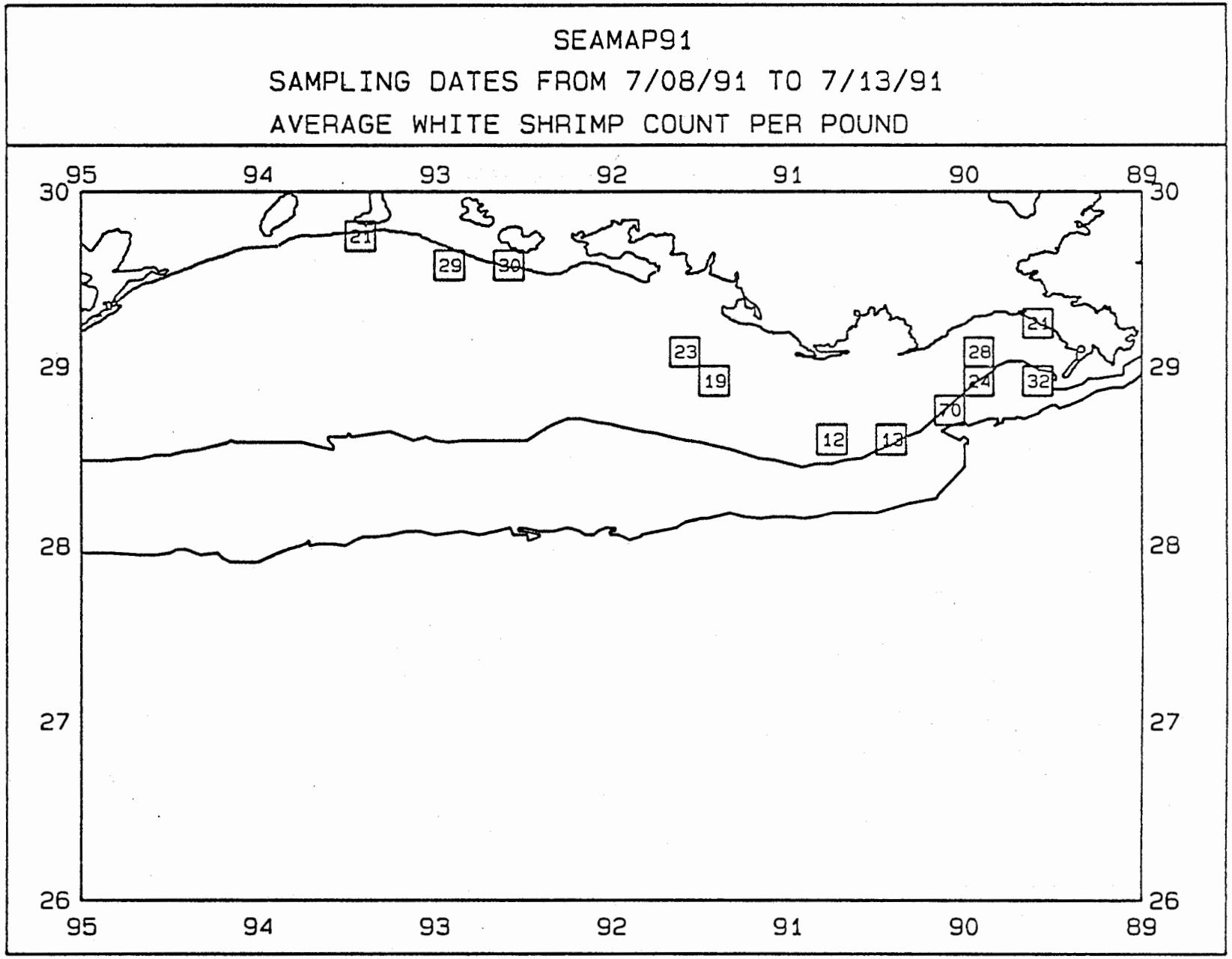


Figure 14. Real-Time Data Catch Plots, 1991

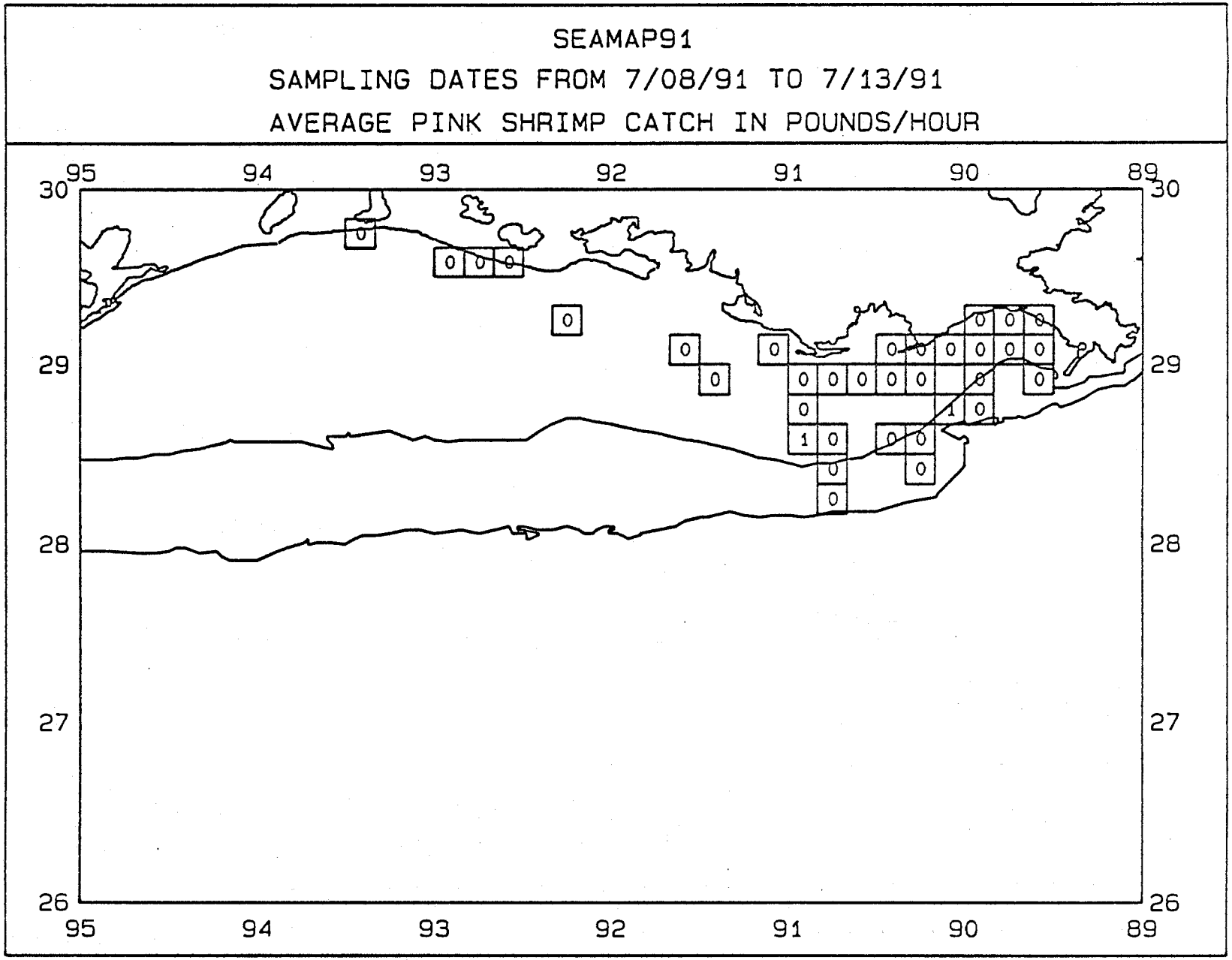


Figure 15. Real-Time Data Catch Plots, 1991

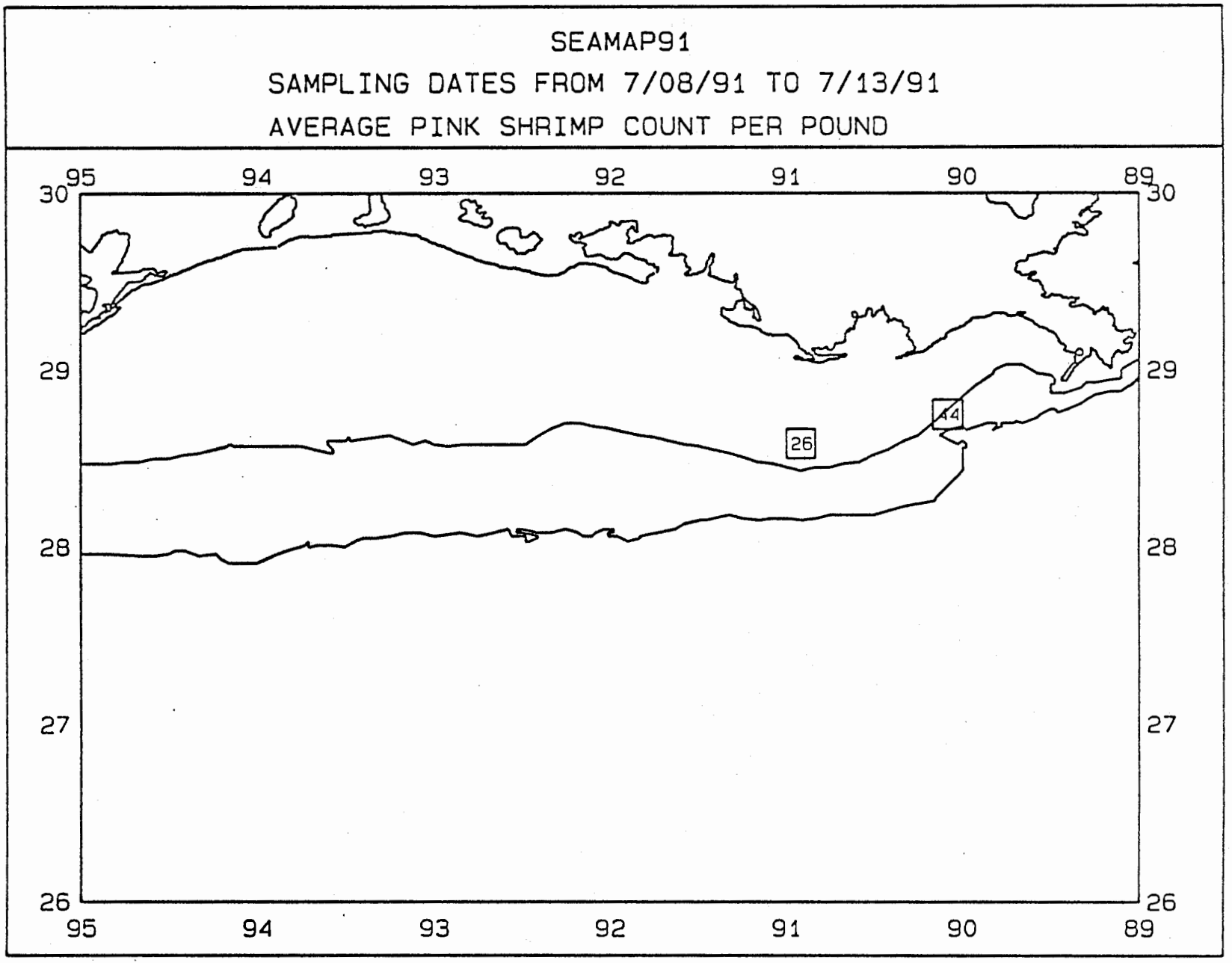


Figure 16. Real-Time Data Catch Plots, 1991

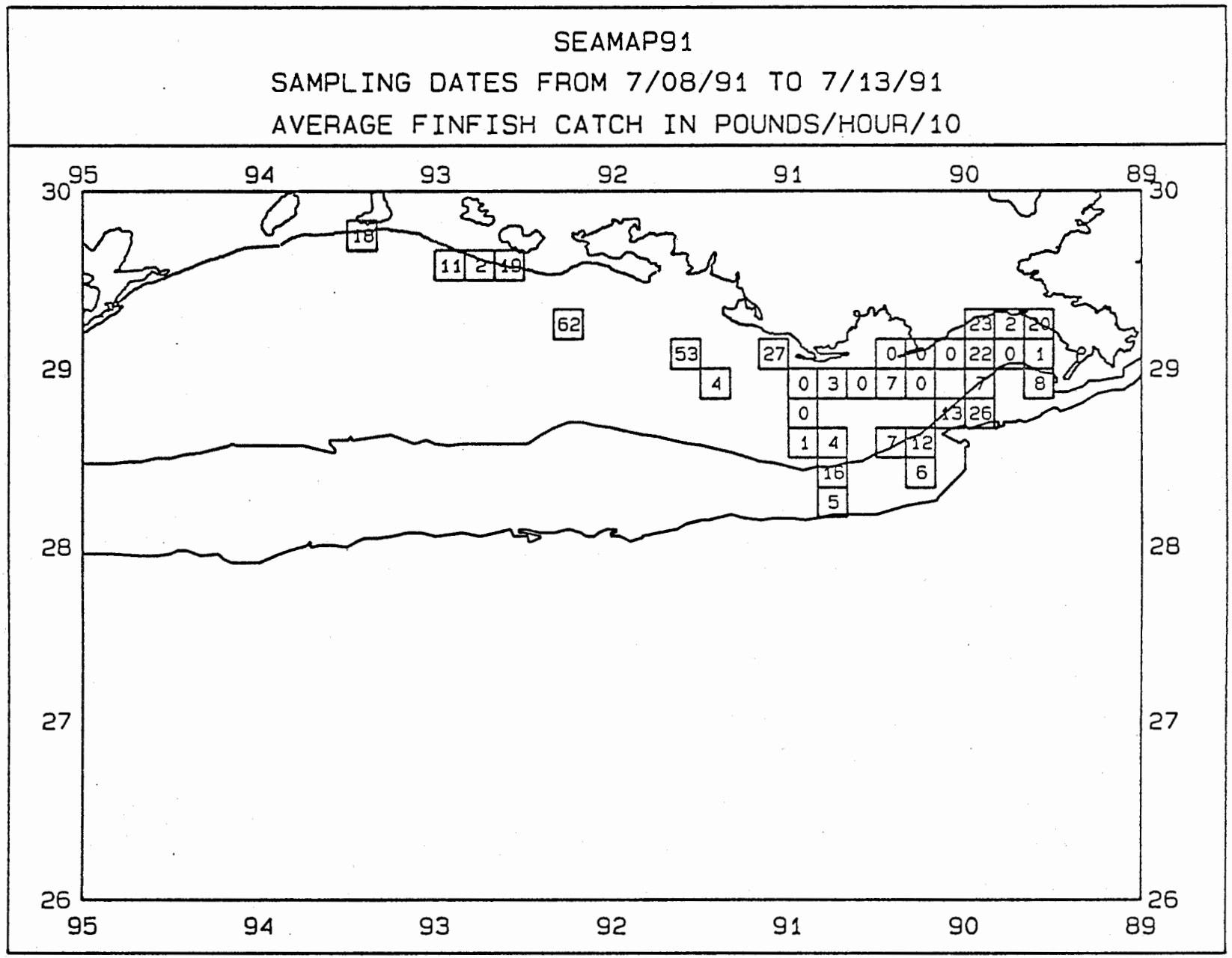


Figure 17. Real-Time Data Catch Plots, 1991

SEAMAP ARCHIVING CENTER

Larval fish and fish egg samples sorted to the family level by the PSC are returned to the 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. Samples cataloged to date represent 18 orders, 125 families, 234 genera and 244 species.

The SAC is managed in conjunction with Florida Department of Natural Resources 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. Due to logistical problems with the Polish Sorting Center, plans call for SEAMAP samples to be stored at state facilities until an alternative sorting center can be selected. In anticipation of a possible switch from the PSC, the Atlantic Reference Center (ARC) has been contacted about a possible sorting opportunity. Representative archived samples have been sent to ARC so they can get an estimate for sorting times, costs. etc. As of the fall of 1987, plankton samples taken by Louisiana vessels were sorted by LDWF and sorting has continued for 1990-1991 samples. All specimens and data will be provided to the SAC.

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. Accessioning of back-logged material has been a priority for the SAC since the new curatorial assistant was hired. With most of the 1987 and 1988 samples accessioned at SAC, the catalogue is expected to contain approximately 45,900 lots, a collection of significant size.

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 and is managed in conjunction with Gulf Coast Research Laboratory in Biloxi, Mississippi.

During the FY1991, 319 unsorted SEAMAP samples were received and catalogued at SIPAC. As of August 28, 1991, a total of 4,337 unsorted fish larvae samples are held at SIPAC. In an effort to limit the space and costs of curating the growing SIPAC collection of unsorted samples, a protocol was adopted to retain only a 1/4 aliquot of samples that are more than 7 years old. As of August 28, 1991, 288 samples from the 1982 surveys and 270 samples from the 1983 surveys were aliquoted and retained in the collection. The remaining portions of these samples were donated to Dr. Pat Biesiot of the University of Southern Mississippi for use as teaching aids.

A total of 91 SEAMAP samples have been sorted for selected invertebrate taxa by the SIPAC and the PSC following established protocol. A total of 606 lots were obtained from these samples. Portunid megalopae and penaeid postlarvae from the sorted samples have been further identified to the lowest possible taxonomic level. Data from these samples have been provided to researchers at Louisiana State University, Louisiana Department of Wildlife and Fisheries and the Gulf Coast Research Laboratory. The portunid megalopal data are currently being used by the GSMFC Crab Subcommittee to develop an atlas of portunid megalopal distribution in the northern Gulf of Mexico.

During the next fiscal year, the SIPAC collection will continue to be maintained and additional samples will be sorted for invertebrates. Particular emphasis will be placed on providing data on the megalopae of Callinectes sapidus and postlarval Penaeus spp. as requested by several researchers. The ability of SIPAC to provide this data has been enhanced by the allocation of SEAMAP funds to support invertebrate sorting during FY1990.

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 SEAMAP program management included the Coordinator, Data Manager, SAC Curator, SIPAC Curator and the NMFS-Mississippi Laboratories Director, serving as Program Manager.

ADMINISTRATION

PLANNING

Major SEAMAP-Gulf Subcommittee meetings were held in October 1990 and April 1991, in conjunction with the Annual Fall and Spring Meetings of the GSMFC. All meetings included participation by the work group leaders, Coordinator, Data Manager, curators and the GSMFC Executive Director. Subcommittee members and proxies are listed in Table 1.

Representatives from the Gulf program also met with the South Atlantic and Caribbean representatives in July 1991 to discuss respective program needs and priorities for FY1992. Minutes for all the meetings are listed in Appendix I.

SEAMAP-Gulf work groups met this past year to provide recommendations to the Subcommittee for survey and data management needs. The Plankton Work Group met via conference call in October 1991. The Adult Finfish Work Group met in October 1990 and August 1991. And the Shrimp/Groundfish Work Group met in May 1991. 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.

Coordination of program surveys and distribution of quick-report summaries of a Gulf-wide survey to management agencies and industry were major functions of SEAMAP management in FY1991. 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 FY1992 ACTIVITIES

Preliminary FY1992 SEAMAP-Gulf budget allocations are shown in Table 3. Total program allocations for all three SEAMAP components, Gulf, South Atlantic and Caribbean, total $942,000. However, there is a chance for an increase in funding in FY1992 which would be divided among the three SEAMAP components. If the level of funding is the same as previous years, the share to be allocated for the SEAMAP-Gulf activities (including GSMFC) would be $724,573.

Proposed FY1992 activities for all Gulf participants are shown in Table 4. The approved FY1992 Operations Plan for SEAMAP-Gulf is contained in Appendix II. It should be noted that the SEAMAP fiscal year begins on January 1 thus, Fall activities for FY1992 will be conducted from October-December 1991.

PUBLICATIONS

The following reports were published and distributed in FY1991:

- 1991 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 materials.

- SEAMAP Subcommittee Report to the GSMFC Technical Coordinating Committee - October 1, 1990 to September 30, 1991 : a detailed summary of program accomplishments, emphasizing survey design, material collected, data dissemination, budget information, and future survey activities.

- Annual Report of the SEAMAP Program - October 1, 1989 to September 30, 1990: a summary of 1990 activities and proposed 1991 events for the SEAMAP-Gulf, South Atlantic, and Caribbean Programs.

- 1987 Environmental and Biological Atlas: a compilation of information obtained from the 1987 SEAMAP surveys including catch rates of shrimp and finfish, abundance and distribution of plankton in the Gulf of Mexico and environmental data from all surveys.

- 1988 Environmental and Biological Atlas: a compilation of information obtained from the 1988 SEAMAP surveys including catch rates of shrimp and finfish, abundance and distribution of plankton in the Gulf of Mexico and environmental data from all surveys.

FY1991 FINANCIAL REPORT

Total allocations for FY1991 program administration were $90,326. As of August 31, 1991, total expenditures and encumbrances were $68,782. The remaining balance of $21,544 will be used to provide administration of the SEAMAP program through December 31, 1991.

TABLE 1.

SEAMAP REPRESENTATIVES FOR 1991

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

proxy: Stevens Heath

Richard Waller, Vice Chairman
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

proxy: Thomas McIlwain

Barney Barrett
Louisiana Department of Wildlife and Fisheries

proxy: Jim Hanifen

Joe Kimmel
Florida Department of Natural Resources

proxy: Mark Leiby

Gary Matlock
Texas Parks and Wildlife Department

proxy: Terry Cody

Scott Nichols
National Marine Fisheries Service
Pascagoula Laboratory

Wayne Swingle (non-voting)
Gulf of Mexico Fishery Management Council

TABLE 2.

SEAMAP WORK GROUP MEMBERS FOR 1991

PLANKTON WORK GROUP

Joanne Shultz, Leader
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

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

Don Hoss
National Marine Fisheries Service
Beaufort Laboratory

Jim Hanifen
Louisiana Department of Wildlife and Fisheries

Mark Leiby
Florida Department of Natural Resources

Richard Shaw
Louisiana State University

Churchill Grimes
National Marine Fisheries Service
Panama City Laboratory

Ken Stuck, Curator
SEAMAP Invertebrate Plankton Archiving Center
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Harriet Perry
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

SHRIMP/BOTTOMFISH WORK GROUP

Stevens Heath, Leader
Alabama Department of Conservation and Natural Resources

Terry McBee
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Jim Hanifen
Louisiana Department of Wildlife and Fisheries

Ed Klima
National Marine Fisheries Service
Galveston Laboratory

Scott Nichols
National Marine Fisheries Service
Pascagoula Laboratory

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Department

ENVIRONMENTAL WORK GROUP

Warren Stuntz, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Charles Eleuerius
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Ron Gouguet
Louisiana Department of Wildlife and Fisheries

Thomas Leming
National Marine Fisheries Service
Pascagoula Laboratory

Ken Haddad
Florida Department of Natural Resources

TABLE 2. (CONT'D.)

RED DRUM WORK GROUP

Thomas McIlwain, Leader
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Richard Condrey
Louisiana State University

Larry McEachron
Texas Parks and Wildlife Department

Mike Murphy
Florida Department of Natural Resources

Phil Goodyear
National Marine Fisheries Service
Miami Laboratory

Joseph Shepard
Louisiana Department of Wildlife and Fisheries

ADULT FINFISH WORK GROUP

Scott Nichols, Leader
National Marine Fisheries Service
Pascagoula Laboratory

James Warren
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Joanne Shultz
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

Robert Shipp
University of South Alabama

Wayne Swingle
Gulf of Mexico Fishery Management Council

Tom McIlwain
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory

John Roussel
Louisiana Department of Wildlife and Fisheries

Joe Kimmel
Florida Department of Natural Resources

Billy Fuls
Texas Parks and Wildlife Department

DATA COORDINATING WORK GROUP

Kenneth Savastano, Leader
National Marine Fisheries Service
Stennis Space Center
SEAMAP Data Manager

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

Thomas McIlwain
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory
Red Drum Work Group

Scott Nichols
National Marine Fisheries Service
Pascagoula Laboratory
Adult Finfish Work Group

Joanne Shultz
Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory
Plankton Work Group

Warren Stuntz
National Marine Fisheries Service
Pascagoula Laboratory
Environmental Work Group

Stevens Heath
Alabama Department of Conservation and Natural Resources
Shrimp/Bottomfish Work Group

TABLE 3.

PRELIMINARY FY1992 PROGRAMMATIC BUDGET

LDWF	$ 116,547
MDWFP/GCRL	95,573
GSMFC	93,476
FDNR	74,453
ADNCR	65,780
TPWD	45,744
TOTAL	$491,573
NMFS	$233,000

TABLE 4.

PROPOSED SEAMAP-GULF ACTIVITIES, FY 1992

	Fall	Winter	Spring	Summer
Resource Surveys:				
Spring Plankton Survey			X	
Shrimp/Groundfish Surveys	X			X
Louisiana Seasonal Surveys	X	X	X	X
Fall Plankton Survey	X			
Plankton and Environmental Data Surveys	X	X	X	X
Information Operations:				
1989 Biological and Environmental Atlas		X		
1992 Marine Directory			X	
1991 Joint Annual Report		X		
Data Input and Request Processing	X	X	X	X
Specimen Archiving and Loan	X	X	X	X
Real-time Data Summaries				X
Program Administration	X	X	X	X

APPENDICES

APPENDIX I

SEAMAP SUBCOMMITTEE
MINUTES
Monday, October 15, 1990
Panama City, FL

Chairman Walter Tatum called the meeting to order at 1:10 p.m. The following members and others were present:

Members
Joe Kimmel, FDNR, St. Petersburg, FL
Terry Cody, (proxy for G. Matlock) TPWD, Austin, TX
Walter Tatum, ADCNR, Gulf Shores, AL
Barney Barrett, LDWF, Baton Rouge, LA
Richard Waller, GCRL, Ocean Springs, MS
Wayne Swingle, GMFMC, Tampa, FL
Scott Nichols, NMFS, Pascagoula, MS

Staff
David Donaldson, SEAMAP Coordinator

Others
David Pritchard, NMFS, St. Petersburg, FL
Buck Byrd, NMFS, St. Petersburg, FL
Skip Lazauski, ADCNR, Gulf Shores, AL
Herb Kumpf, NMFS, Panama City, FL
Ken Savastano, NMFS, NSTL Station, MS
Joanne Shultz, GCRL, Biloxi, MS
Eugene Nakamura, NMFS, Panama City, FL
Jim Hanifen, LDWF, Baton Rouge, LA
John Merriner, NMFS, Beaufort, NC
Walter Nelson, NMFS, Pascagoula, MS

Adoption of Agenda

The agenda was approved with the addition of discussion of the January meeting under Other Business.

Adoption of Minutes

The minutes of the meeting held July 23 and 25, 1990 in Charleston, SC and the conference call held on August 17, 1990 were approved.

Review and Approval of Mission Statement

* W. Tatum reviewed the mission statement. W. Tatum moved to accept this statement. It was seconded and was approved unanimously. The final mission statement for the SEAMAP Subcommittee is, "to provide for the cooperative state/federal collection, management and dissemination of fishery-independent data and information in the U.S. Gulf of Mexico region".

Administrative Report

D. Donaldson reported that as of September 30, 1990, the administrative budget totaled $74,459.18 in expenditures and encumbrances with an available balance of $19,016.82 to provide for administration through December 31, 1990.

D. Donaldson reported the progress of the Fall Plankton Survey and stated that the Fall Shrimp/Groundfish cruise would begin shortly.

D. Donaldson reported that the 1987 Atlas is out for review and should be to the publisher in the near future. He stated that GSMFC would attempt to publish the 1988 Atlas in 1990. He was assured by NMFS that the necessary tables and plots would be available in time to accomplish this.

D. Donaldson suggested to discontinue the present TCC report since similar information is provided in the Joint Annual Report which is published a few months later. Also, he noted that a report to the TCC would still be produced but it would not be as detailed as the present report. The subcommittee discussed the idea and decided that the TCC report should continue to be published in its present form.

Status of Adult Finfish Sampling Framework -- Report from the Adult Finfish Work Group

S. Nichols reported that the Adult Finfish Work Group met at GCRL on October 3, 1990. He stated that S. Lazauski has completed the data retrieval matrix. This matrix was designed to

provide documentation of previous experiments and provide information in a consistent format.

S. Nichols reported that the work group discussed the development of a sampling protocol for reef fish on hard bottom using both trap/video and longlining strategies. After lengthy discussions about these methods, the work group recommended that a trap/video strategy should be used if an adult finfish survey can be started in the Gulf of Mexico.

Status of FY91 Funds

* W. Nelson reported that the status of FY91 funds are very uncertain due to the current budget problems. He noted that the chance of budget cuts to the SEAMAP program was a possibility. Due to this possibility, the subcommittee decided to discuss a plan of action if cuts were encountered. R. Waller moved that if cuts were 10% or less, there should be an equal reduction among the seven Gulf components. If cuts exceed 10%, the subcommittee will meet, via a conference call, to determine the reduction to each component. The motion was seconded and passed unanimously.

Work Group Reports

Shrimp/Bottomfish

D. Donaldson reported for leader P. Bowman that the work group met on April 27, 1990. The two main topics addressed at the meeting were establishing of additional sampling in the 2 - 5 fathom range and the continuation of comparative tows. He stated that the work group plans to meet in the spring to work out any problems and finalize the Shrimp/Bottomfish cruise.

Environmental

* S. Nichols reported for leader W. Stuntz that the Environmental Work Group have not met since the last SEAMAP meeting. He stated that the work group did act on the subcommittee's request concerning calibration of environmental

data. A discussion of what is acceptable environmental data ensued. From that discussion, R. Waller moved that the refractometer readings remain in the SEAMAP data system with the caveat that the method of collection (refractometer) is noted. The motion was seconded and passed unanimously. Also, R. Waller moved that state entities that presently use a refractometer stop doing so and send water samples to NMFS so NMFS can run the samples on the salinometer. The motion was seconded and passed unanimously. W. Tatum stated that a member of the Environmental Work Group should be present at the next SEAMAP meeting to provide a report on the activities of the work group.

Data Coordinating

K. Savastano distributed and reviewed the SEAMAP Data Management Report (attached). Items noted included:

- data entry, edit and verification of 1989 data is progressing.
- processing of the 1987 Atlas is complete and 1988 Atlas is approximately 40% complete.
- 96 of 97 requests for data have been completed and work is being performed on the remaining request.
- Version 1.16 of SEAMAP Software System has been sent to all users.
- status of the Burroughs mainframe continues to change. SEFC should be completely off the mainframe by the end of November or December.

Plankton

* J. Shultz reported that the Plankton Work Group met on September 28, 1990. She stated that the two major topics discussed were consideration of alternative sorting centers and establishing a SEAMAP winter plankton survey. From the discussion, the work group formulated several action items. The first item was that the work group requested the $5,000 of SEAMAP

funds be reinstated for the purpose of invertebrate sorting and identification. The second item was to ask the subcommittee to withdraw the $25,000 for the Polish Sorting Center and use those funds for ichthoplankton and zooplankton sorting at an alternative sorting center(s). R. Waller moved to accept the report. The motion was seconded and passed. R. Waller moved that $5,000 go to SIPAC as soon as a funding source can be identified. The motion was seconded and passed with Florida, Alabama, Mississippi and Texas abstaining.

Other Business

* S. Nichols stated that the January and April meetings are held fairly close together and there may not be a need for two meetings in such close proximity to one another. He moved to not hold a January meeting in 1991. The motion was seconded and passed. R. Waller moved to give the money saved from not holding a January meeting, up to $5,000, to SIPAC through the state of Mississippi to increase the sorting effort of commercially important invertebrate species. The motion was seconded and passed with Texas voting against.

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

10-12-90

SEAMAP Data Management Report

A. SEAMAP data entry, edit, and verification status for the 1989 Gulf data is shown in Attachment 1. Receipt of the South Atlantic 1989 data will be delayed until the January 1991 time frame due to South Carolina having limited manpower resources to apply to the task of reformatting the data to SEAMAP system format.

B. Processing of the 1987 Atlas has been completed. Processing of the 1988 Atlas is approximately 40% complete.

C. A total of 97 SEAMAP requests have been received to date. Ninety-six have been completed and work is being performed on the remaining request.

D. SEAMAP Data Management efforts continue to be focused on getting the data management central operations in place and performing the necessary software enhancements to improve the system. Version 1.16 of the SEAMAP Software System was shipped to all users on October 2, 1990 (Attachment 2). Approximately 63% of the total SEAMAP Data Management's estimated cost of $536,500 has been committed to contracts on $338,744. Approximately 97% of the committed contract money or $328,962, has been utilized as of August 26, 1990. Attachments 3 and 4 provide the status of the system modules.

E. Plans for the SEFC to be totally off the Burroughs mainframe in Seattle by September 30, 1990 have been changed. The Burroughs mainframe will be used until a mainframe is installed in Miami. This allows continuity in mainframe availability for the SEAMAP Data Management System for awhile. Some problems were encountered with the change over from a Burroughs 7811 system to a Burroughs 7900 system in Seattle. The necessary changes to the SEAMAP System Software were made and implemented in Version 1.16 and the system is now functional on the Burroughs 7900. The next mainframe stress point for the SEAMAP Data Management System will probably be in the December/January time frame when the leased mainframe will be installed in Miami and the entire system has to be transported, installed, and made functional.

Kenneth A. Sustaire

ATTACHMENT 1.

SEAMAP 1989

DATA SOURCE		STATUS INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL GENERAL L/F		SHRIMP L/F STATION	SHRIMP L/F L/F	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	TOTAL
L	891	3	7	103	7	363	3	96	*1	*1	*1	586
L	892	3	10	200	10	991	7	166	*1	*1	*1	1394
L	893	3	10	*1	10	*1	*1	*1	10	10		40
L	894	3	12	259	12	1452	11	164	*1	*1	*1	1921
L	891	3	25	*1	25	*1	*1	*1	*1			50
S	891	3	41	987	41	7589	21	261	8	22		9004
S	892	3	5	*1	5	*1	*1	*1	5	15		30
S	893	3	20	568	20	4631	*1	*1	3	9		5268
X	891	3	80	1324	80	7050	69	2403	*1	*1	*1	11086
X	892	3	80	1285	80	6403	*1	*1	*1	*1	*1	7928
II	179	2		527	933	37						1497
II	180	3	244	243	4052	188	26051	141	4815	21	63	35818
II	183	3	114	*1	*1	114	*1	*1	*1			228
II	184	2	512	491	11912	229	66969					80113
OTAL			1160	1500	21623	858	121499	252	7905	47	119	154963

TATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON BURROUGHS 7811 (VERIFIED AND DATA BASED)

09-Oct-90

Attachment 2.

Dynardrup

601 688 3505

October 2, 1990
90-731-469

To: SEAMAP Users

From: SEAMAP Central Operations

Subject: SEAMAP Version 1.16

Enclosed please find a complete set of diskettes for SEAMAP DMS Version 1.16. The installation program has been included to install updates as well as to perform a first time installation. However, it is written for SEAMAP to be distributed on 3.5 inch floppy diskettes. Refer to attachment one for procedures to install SEAMAP DMS Version 1.16 from 5.25 inch floppy diskettes. Refer to Section 3.1.2 of the SEAMAP DMS Users Manual for installation instructions from 3.5 inch floppy diskettes.

Also enclosed are updates to your current SEAMAP DMS Users Manual. Replace the pages in your manual with the updated pages. Pages which contain a letter after the page number should be placed after the appropriate page. Those are additions to the manual and not replacement pages.

Below is a list of enhancements made for SEAMAP DMS Version 1.16.

- The user has the option to not enter SEAMAP station data when entering Ichthyoplankton Station data.
- The Environmental help screen for station start/end was corrected.
- On-Line Documentation for Ichthyoplankton summarizes the totals for stations, samples, genus species and lengths.
- The communications software was modified to interface with the Burroughs 7900.
- The gear, vessel, operations code and biocode tables were updated.
- Several problems that were encountered when inserting SEAMAP data into the SEAMAP data base on the Burroughs 7900 and cataloging the data have been corrected. Therefore, Central Operations should be able to insert uploaded data into the SEAMAP data base in a timely manner.
- An error check was added which will not allow the user to enter a DOS file name with a space within the name.

Also enclosed is an upgraded version of the Batch Verification with its documentation. The documentation contains installation instructions. Below is a list of the modifications.

- The gear, vessel, operations code and biocode tables were updated.
- Only a .log file is output by the Batch Verification software.

If you have any questions about the SEAMAP DMS, please call (601) 688-3511.

J. Wade Lasher for

Charlene Burns
SEAMAP Central Operations

Attachment 3.

EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
26 AUGUST 1990

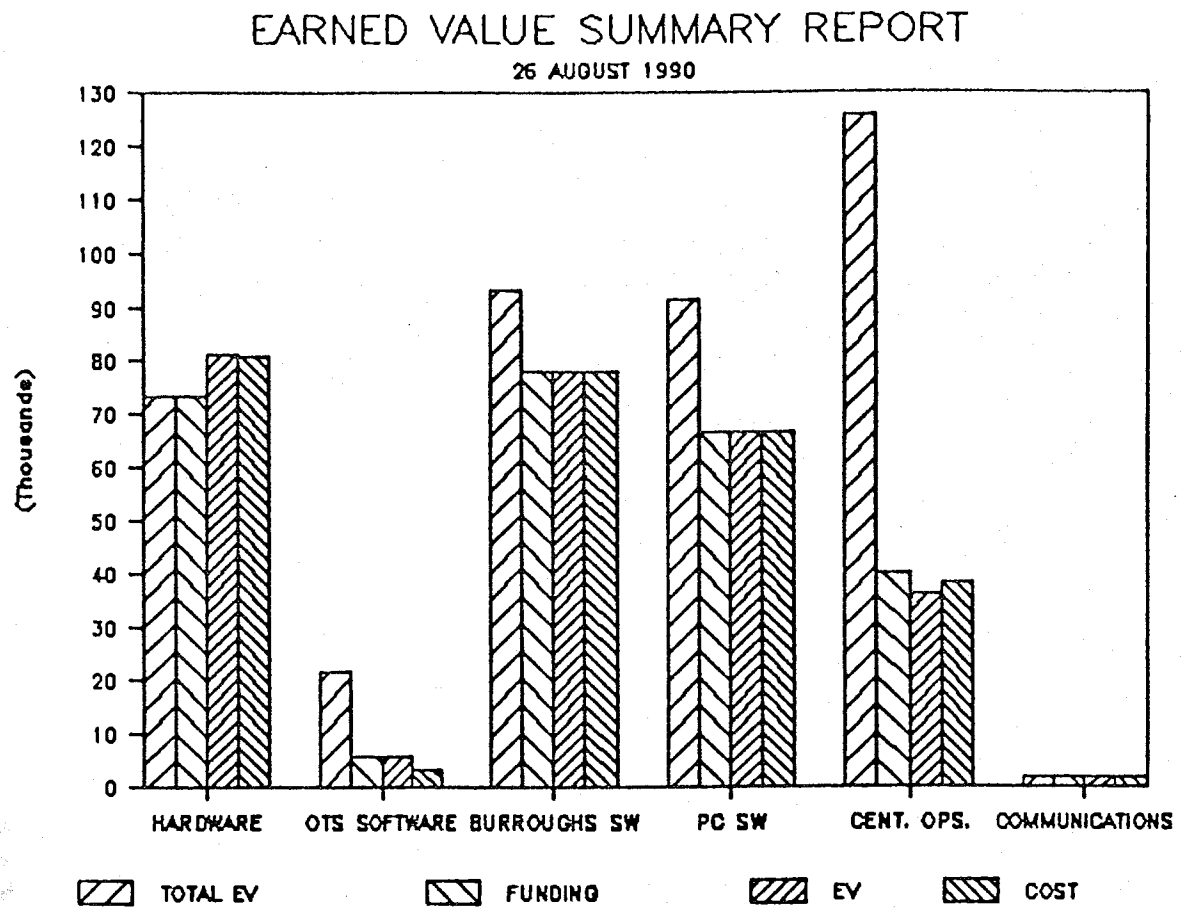
UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EAC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
TOTAL DMS IMP.	--	$363,049	109.8%	$328,962	99.5%	($34,087)	-9.4%	$4,400	($38,487)	-10.5%	$330,687	$1,645
TOTAL LABOR	--	$237,002	107.5%	$213,036	96.6%	($23,966)	-10.1%	$4,400	($28,366)	-11.8%	$220,503	$7,467
TOTAL PROC.	--	$125,137	114.6%	$115,016	105.3%	($10,121)	-8.1%	$0	($10,121)	-8.1%	$109,194	($5,822)
TOTAL TRAVEL	--	$910	100.0%	$910	100.0%	$0	0.0%	$0	$0	0.0%	$910	$0
Total HW Cost	--	$81,388	111.1%	$80,885	110.4%	($503)	-0.6%	$0	($503)	-0.6%	$73,251	($8,137)
HW Proc Labor	MF4A34	$3,251	100.0%	$2,748	84.5%	($503)	-15.5%	$0	($503)	-15.5%	$3,251	$0
HW Proc	(NMFS)	$78,137	111.6%	$78,137	111.6%	$0	0.0%	0	$0	0.0%	$70,000	($8,137)
Total SW Cost	--	$5,751	100.0%	$3,425	59.5%	($2,326)	-40.4%	$0	($2,326)	-40.4%	$5,752	$2,327
SW Proc Labor	MF4A37	$751	99.9%	$740	98.4%	($11)	-1.5%	$0	($11)	-1.5%	$752	$12
SW Proc	(NMFS)	$5,000	100.0%	$2,685	53.7%	($2,315)	-46.3%	0	($2,315)	-46.3%	$5,000	$2,315
Travel Cost	--	$910	100.0%	$910	100.0%	$0	0.0%	$0	$0	0.0%	$910	$0
NMFS	MF4A37	$910	100.0%	$910	100.0%	$0	0.0%	$0	$0	0.0%	$910	$0
Burroughs SW	--	$78,000	100.0%	$77,957	99.9%	($43)	-0.1%	$0	($43)	-0.1%	$78,000	$43
Data Handler	MF4A33	$42,500	100.0%	$42,486	100.0%	($14)	0.0%	$0	($14)	0.0%	$42,500	$14
Data Handler	UUPL0301	$2,000	100.0%	$1,997	99.9%	($3)	-0.2%	$0	($3)	-0.2%	$2,000	$3
Data Handler	UM001203	$1,000	100.0%	$991	99.1%	($9)	-0.9%	$0	($9)	-0.9%	$1,000	$9
Reformat	MF4A01	$20,000	100.0%	$19,995	100.0%	($5)	0.0%	$0	($5)	0.0%	$20,000	$5
On-line Doc	MF4A38	$7,500	100.0%	$7,488	99.8%	($12)	-0.2%	$0	($12)	-0.2%	$7,500	$12
Mbox/Bboard	UM001204	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
PC Software	--	$66,500	100.0%	$66,485	100.0%	($15)	0.0%	$0	($15)	0.0%	$66,500	$15
Upload	MF4A32	$32,000	100.0%	$31,997	100.0%	($3)	0.0%	$0	($3)	0.0%	$32,000	$3
Upload	UM001102	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
Upload	UM001103	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Upload	UUPL0302	$6,000	100.0%	$6,000	100.0%	$0	0.0%	$0	$0	0.0%	$6,000	$0
Download	MF4A31	$17,500	100.0%	$17,488	99.9%	($12)	-0.1%	$0	($12)	-0.1%	$17,500	$12
Download	UM001201	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Download	UM001202	$1,000	100.0%	$1,000	100.0%	$0	0.0%	$0	$0	0.0%	$1,000	$0
Analysis/Disp	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0

Attachment 3 continued.

EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
26 AUGUST 1990

UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EIC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
Central Dos	—	$36,000	90.0%	$38,137	95.3%	$2,137	5.9%	$4,400	($2,263)	-5.6%	$40,000	$1,863
Sys Mgmt 89	MF4A40	$5,000	100.0%	$5,020	100.4%	$20	0.4%	$0	$20	0.4%	$5,000	($20)
Sys Mgmt 90	MF4A48	$5,000	100.0%	$7,136	142.7%	$2,136	42.7%	$2,000	$136	1.9%	$5,000	($2,136)
Data Process	MF4A53	$1,000	20.0%	$1,351	27.0%	$351	35.1%	$400	($49)	-3.5%	$5,000	$3,649
PC SW Main 89	MF4A44	$10,000	100.0%	$9,991	99.9%	($9)	-0.1%	$0	($9)	-0.1%	$10,000	$9
PC SW Main 90	MF4A47	$5,000	100.0%	$5,172	103.4%	$172	3.4%	$2,000	($1,828)	-26.1%	$5,000	($172)
B SW Main 89	MF4A45	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
B SW Main 90	MF4A46	$5,000	100.0%	$4,470	89.4%	($530)	-10.6%	$0	($530)	-10.6%	$5,000	$530
Special Reqs	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Archival	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Communications	MF4A36	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Training	—	$20,000	100.0%	$19,972	99.9%	($28)	-0.1%	$0	($28)	-0.1%	$20,000	$28
Site Users	MF4A39	$5,000	100.0%	$4,994	99.9%	($6)	-0.1%	$0	($6)	-0.1%	$5,000	$6
Training Prep	UM001205	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Gulf Train	UM001206	$4,000	100.0%	$4,000	100.0%	$0	0.0%	$0	$0	0.0%	$4,000	$0
S Atl Train	MF4A43	$2,000	100.0%	$1,983	99.2%	($17)	-0.9%	$0	($17)	-0.9%	$2,000	$17
Sys Maint	UM001207	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Sys S/W Train	MF4A42	$3,000	100.0%	$2,995	99.8%	($5)	-0.2%	$0	($5)	-0.2%	$3,000	$5
Near Real Time	—	$67,000	195.9%	$34,194	100.0%	($32,806)	-49.0%	$0	($32,806)	-49.0%	$34,194	$0
Data Ent SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Comm I'face	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
NRT Burr SW	(NMFS)	$10,000	0.0%	$0	0.0%	($10,000)	-100.0%	$0	($10,000)	-100.0%	$0	$0
Port PC SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Antenna Proc	(NMFS)	$30,000	100.0%	$30,000	100.0%	$0	0.0%	$0	$0	0.0%	$30,000	$0
PC HW Proc	(NMFS)	$12,000	286.1%	$4,194	100.0%	($7,806)	-65.1%	$0	($7,806)	-65.1%	$4,194	$0
Plotting	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Atlas	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Plankton	—	$5,500	55.0%	$4,997	50.0%	($503)	-9.1%	$0	($503)	-9.1%	$10,000	$5,003
Icthyo DB	UM001101	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
Icthyo DB	MF4A52	$500	10.0%	$0	0.0%	($500)	-100.0%	$0	($500)	-100.0%	$5,000	$5,000
Zoo DB	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0

Attachment 4.



SEAMAP SUBCOMMITTEE MINUTES
Monday, April 15, 1991
Galveston, TX

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

Members
Walter Tatum, ADCNR, Gulf Shores, AL
Richard Waller, GCRL, Ocean Springs, MS
Barney Barrett, LDWF, Baton Rouge, LA
Joe Kimmel, FDNR, St. Petersburg, FL
Scott Nichols, NMFS, Pascagoula, MS
Terry Cody (proxy for G. Matlock), TPWD, Rockport, TX

Staff
David Donaldson, SEAMAP Coordinator
Cheryl Noble, Staff Assistant

Others
Ken Savastano, NMFS, Stennis Space Center, MS
Page Campbell, TPWD, Rockport, TX
Lance Robinson, TPWD, Seabrook, TX
Billy Fuls, TPWD, Rockport, TX
Peng Choi, TPWD, Austin, TX
Douglas Gregory, GMFMC, Tampa, FL
Warren Stuntz, NMFS, Pascagoula, MS
Lucy Gibbs, Texas Shrimp Association, Austin, TX
Jim Hanifen, LDWF, Baton Rouge, LA
Greg Lutz, LDWF, Baton Rouge, LA
Peter Rubec, TPWD, Austin, TX

Adoption of Agenda

The agenda was approved with the following additions:

- Discussion of Finfish Matrix
- Election of Officers
- Data Management Work Group Report
- Discussion of Joint Meeting Site
- Approval of Resolution from Data Management Subcommittee

Approval of Minutes

The minutes of the meeting held October 17, 1990 in Panama City, Florida were approved with several minor changes.

Election of Chairman and Vice Chairman

W. Tatum was reelected as chairman of the SEAMAP subcommittee and R. Waller was reelected as vice chairman.

Discussion of Finfish Matrix

S. Lazauski reported that the finfish matrix has been distributed to all of the states. He requested that the subcommittee members review the matrix and contact him with any comments.

Discussion of Dissemination of Real-time Data

W. Tatum stated the Texas Shrimp Association (TSA) sent him a letter expressing their concern regarding the dissemination of real-time data. TSA believes that the real-time survey causes pulse fishing off the Texas coast. TSA requested that the SEAMAP subcommittee delay the mailing of real-time data. It was pointed out, however, that the purpose of survey was to provide the data in near real-time so fisheries managers and industry members can effectively utilize the information. Also, the information collected during this survey cannot be withheld from the public and if someone requests the data, it must be provided to that person. Several subcommittee members believed that there was not enough information concerning the perceived problem of pulse fishing caused by the real-time survey. The subcommittee decided the stoppage or delay of the real-time survey was not their decision and should be passed onto the TCC. The subcommittee should however provide some recommendations to the TCC.

* After a lengthy discussion, several failed motions and short break, J. Kimmel moved to recommend that the TCC instigate a mechanism where by SEAMAP can identify if a problem from the dissemination of real-time data really exists. The motion was passed.

Discussion of the Crescent Initiative

S. Nichols explained that within NOAA, there is a new structure called the Coastal Ocean Program (COP) which is trying to tie together the basic research among NOAA. One of the themes of COP is Coastal Fisheries Ecosystems (CFE) which deals with early life history.

S. Nichols stated that through the CFE program, the Crescent Initiative could receive funding. A concept document is being completed which outlines the initiative. S. Nichols stated that there is approximately 20% chance of receiving funding. SEAMAP would be involved in the Crescent Initiative by providing the project management for the program.

S. Nichols reported that the initiative would concentrate on the mechanisms that drive the establishment of both short-term and long-term variations of year-class strength for species that are predominantly coastal, such as mackerels and snappers. The focus will be on the coastal species and the affects of the physical environment on these species.

* S. Nichols asked the Subcommittee for authorization to propose in the concept document that SEAMAP be the management agency for the Crescent Initiative. He moved that the SEAMAP Subcommittee accept the role that SEAMAP would play in the Crescent Initiative and give their endorsement for this project. The motion passed with Texas voting against.

Work Group Reports

Environmental

W. Stuntz reported that the archiving of the environmental data is going well. The work group have concerns regarding the standardization of gear between the entities collecting data. W. Stuntz recommended that the Pascagoula Labs send personnel to the various Gulf States to calibrate the environmental gear

used for collection. The SEAMAP Subcommittee approved the work group's recommendation.

The issue of the inclusion of temperature readings in the database was discussed. As of now, if temperature readings are not recorded by CTD, they are not included in the SEAMAP data system. R. Waller pointed out that the cost of CTD prevented many states from purchasing one of these units. W. Stuntz stated that the cost of CTDs have been greatly reduce. It was decided that the work group should provide information concerning the costs of CTDs to the states.

* T. Cody expressed his desire for additional columns in the data system so the type of gear used to collect temperature and salinity could be included. T. Cody moved that the SEAMAP Subcommittee support a gear code change to reflect the type of gear used for the collection of temperature and salinity. The motion passed.

Plankton

D. Donaldson, reported for Work Group leader J. Schultz, stated that the Plankton Work Group held a conference call on April 4, 1991. The work group decided that states should try to sample as close to the bottom as possible and in 20 meters or less, the settling time should be changed from 1 minute to 30 seconds. It was also decided to add another category for "Sample Initial Preservative" in the data system. The category would be designated as "5 = Otofix". The issue of the exclusivity of the catalogue number was discussed. K. Savastano stated that this problem had been resolved.

* D. Donaldson reported that the Polish Sorting Center (PSC) was expanding and there is no indication that it is going to close. The work group asked the SEAMAP Subcommittee to draft a letter requesting the removal of the money from the PSC. R. Waller moved that all future payments be stopped to the PSC; Don

Hoss, on behalf of the work group, request that samples not sorted be returned and that future funding that was to be paid to the PSC by used for payment of alternative sorting centers. The motion passed. R. Waller moved to hold all future plankton samples until an alternative sorting center is selected. The motion passed.

D. Donaldson reported on alternative sorting centers. The Atlantic Reference Center (ARC) has increased their sorters from 5 to 21. The ARC has the time and sorters available to sort SEAMAP plankton samples. A preliminary cost estimate of $58 - $65/sample was given to the work group. Representative samples of SEAMAP plankton will be sent to the ARC to get a better idea of the cost/sample. Using these preliminary cost estimates, it would cost approximately $17,000 for all of the Gulf States to have the plankton samples sorted at the ARC. The work group asked that the money saved from using the ARC be used to implement a Winter Plankton Survey.

* The work group requested that Alonzo Hamilton (NMFS) be added to the Plankton Work Group. W. Tatum moved that Alonzo Hamilton be added to the work group. The motion passed.

Adult Finfish

S. Nichols reported that NMFS is continuing their reef fish sampling. He reported that SEAMAP have been requested to develop a comprehensive research plan for reef fish. S. Nichols moved that the SEAMAP Subcommittee, through the Adult Finfish Work Group, formulate a working plan to guide reef fish research. The motion passed.

Data Management

K. Savastano distributed and reviewed the SEAMAP Data Management Report

(attached). Items noted included:

- data entry, edit and verification of 1989 data is complete. The work on the 1990 data is continuing.
- processing of the 1987 and 1988 SEAMAP Atlases has been completed and the documents have been printed. The 1989 data editing is complete and atlas processing has been initiated.
- 99 of 103 requests for data have been completed and work is being performed on the remaining requests.
- SEAMAP Data Management efforts continue to be focused on getting the data management central operations totally in place and performing the necessary software enhancement to improve and streamline the operational/production aspects of the system.

Other Business

W. Tatum discussed the site for the Joint SEAMAP Meeting. D. Donaldson reported that is was supposed to be held in Savannah, GA but due to travel restrictions by the SEAMAP Atlantic component of SEAMAP, the site will be determined at a later date.

W. Tatum stated the resolution to be approved is trying to get NOAA to keep SEAMAP, State/Federal Cooperative Statistics and other similar programs in a non-competitive cooperative agreement situation. W. Tatum moved to accept the resolution concerning the non-competitive nature of some State-Federal programs. The motion passed with NMFS abstaining.

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

April 10, 1991

SEAMAP DATA MANAGEMENT REPORT

A. The SEAMAP data entry, edit, and verification have been completed for the 1989 Gulf data and the status is shown in Attachment 1. The status of the 1990 Gulf data is shown in Attachment 2. The South Atlantic 1989 data are currently being converted to the SEAMAP format and processed through the SEAMAP edit software. The first test set is expected to be completed by the end of April.

B. Processing of the 1987 and 1988 SEAMAP Atlases has been completed and the documents have been printed. The 1989 data editing is complete and the 1989 SEAMAP ATLAS processing has been initiated.

C. One hundred and three SEAMAP requests have been received to date. Ninety-nine have been completed and work is being done on the remaining requests.

D. SEAMAP Data Management efforts continue to be focused on getting the data management central operations totally in place and performing the necessary software enhancements to improve and streamline the operational/production aspects of the system. With the exception of plankton data, the 1989 and half of the 1990 Gulf SEAMAP data have been processed through the entry, edit, upload, and data base segments of the system and are currently on-line on the NMFS Burroughs 7900 system in Seattle, Washington. Effort continues to be placed on getting the remaining 1990 Gulf data and the South Atlantic 1989/1990 data into the system as rapidly as possible. This is required before work starts on the 1991 data sets. Conversion of the 1982-1988 data is being handled on a time available or second level priority. A fair amount of effort has been put into getting the ichthyoplankton module of the system fully operational. Initial efforts have identified several system change requirements that have been documented and are currently getting resolved. Tentative schedule for getting the ichthyoplankton software fully operational is set for August, 1991. Version 1.17 of the SEAMAP Software System was shipped to all users on April 8, 1991 (Attachment 3). Approximately 70% of the total SEAMAP DATA Management's estimated cost of $559,074 has been committed to contracts or $387,090. Approximately 99% of the committed contract money or $382,579 has been used as of February 24, 1991. Attachments 4 and 5 provide the status of the system modules.

E. The SEAMAP Data Management System is currently operational on the Burroughs 7900 in Seattle, Washington. A new main frame has been leased and installed in Miami. Implementation of the SEAMAP Data Management System on the Miami main frame has not been scheduled as of this time.

Kenneth J. Savastano

tachment 1.
Mar-91

SEAMAP 1989

ATA OURCE	VESSEL	CRUISE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	DATE DBASED	TOTAL
	23	891	3	7	7	103	7	363	3	96	*1	*1	*1	*1	14-Mar-90	586
	23	892	3	10	10	200	10	991	7	166	*1	*1	*1	*1	09-May-90	1394
	23	893	3	10	*1	*1	10	*1	*1	*1	10	10			18-Jun-90	30
	23	894	3	12	11	259	12	1452	11	164	*1	*1	*1	*1	21-Jun-90	1921
	36	891	3	25	*1	*1	25	*1	*1	*1	25	75			26-Sep-90	125
	36	892	3	36	*1	*1	36	*1	*1	*1					15-Nov-90	72
	35	891	3	24	24	614	24	7921	21	140					19-Feb-91	8768
	35	892	3	22	22	439	22	4002	17	290					20-Feb-91	4814
	25	893	3	21	21	163	21	1106	11	118					01-Mar-91	1461
	35	894	3	24	24	572	24	4385	24	499					04-Mar-91	5552
	25	895	3	21	21	228	21	1940	11	225					15-Mar-91	2467
	35	896	3	10	10	286	10	2718	9	185	*1	*1	*1	*1	18-Mar-91	3228
	35	897	3	16	16	493	16	3636	16	571					18-Mar-91	4764
	17	891	3	41	34	987	41	7589	21	261	8	22			09-May-90	8996
	17	892	3	5	*1	*1	5	*1	*1	*1	5	15			09-May-90	25
	17	893	3	20	17	568	20	4631	*1	*1	3	9			14-Jun-90	5265
	31	891	3	16	16	174	16	575	9	115	*1	*1	*1	*1	22-Aug-90	921
	32	891	3	16	16	323	16	1992	13	709	*1	*1	*1	*1	22-Aug-90	3085
	33	891	3	16	16	354	16	1967	16	546	*1	*1	*1	*1	22-Aug-90	2931
	34	891	3	16	16	268	16	1481	16	651	*1	*1	*1	*1	22-Aug-90	2464
	40	891	3	16	16	205	16	1035	15	382	*1	*1	*1	*1	22-Aug-90	1685
	31	892	3	16	16	199	16	582	*1	*1	*1	*1	*1	*1	22-Aug-90	829
	32	892	3	16	16	307	16	1826	*1	*1	*1	*1	*1	*1	22-Aug-90	2181
	33	892	3	16	16	312	16	1421	*1	*1	*1	*1	*1	*1	22-Aug-90	1781
	34	892	3	16	16	204	16	1112	*1	*1	*1	*1	*1	*1	22-Aug-90	1364
	40	892	3	16	16	263	16	1462	*1	*1	*1	*1	*1	*1	22-Aug-90	1773
	4	179	3	571	438	847	37	2177	*1	*1					27-Oct-90	4070
	4	180	3	244	243	4052	188	26051	141	4815	21	63			18-Jun-90	35797
	4	183	3	115	*1	*1	115	*1	*1	*1	75	153			27-Sep-90	383
	4	184	3	512	490	11999	251	66971	*1	*1	38	120			18-Nov-90	80343
	49	892	3	141	*1	*1	138	*1	*1	*1					14-Nov-90	279
LL				2047	1548	24419	1193	149386	361	9933	185	467	0	0		189354

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON BURROUGHS 7900 (VERIFIED AND DATA BASED)

Attachment 2.
09-Apr-91

SEAMAP 1990

DATA SOURCE	VESSEL	CRUISE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL	GENERAL L/F	SHRIMP STATION	SHRIMP L/F	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	DATE DBASED	TOTAL
FL	36	901	3	21	*1	*1	21	*1	*1	*1					30-Oct-90	42
LA	25	903	3	21	21	142	21	1436	9	202					02-Apr-91	1852
MS	17	901	3	44	40	1086	44	8868	10	395					11-Jan-91	10487
MS	17	903	3	24	24	727	20	4470	*1	*1					22-Feb-91	5265
TX	31	901	3	16	16	128	16	456	9	69	*1	*1	*1	*1	15-Mar-91	710
TX	32	901	3	16	16	267	16	1571	11	431	*1	*1	*1	*1	15-Mar-91	2328
TX	33	901	3	16	16	289	16	1606	14	205	*1	*1	*1	*1	15-Mar-91	2162
TX	34	901	3	16	16	125	16	608	5	101	*1	*1	*1	*1	15-Mar-91	887
TX	40	901	3	16	16	120	16	786	7	218	*1	*1	*1	*1	15-Mar-91	1179
US	4	187	3	290	*1	*1	139	*1	*1	*1	277	405			10-Oct-90	834
US	4	188	3	61	61	71	9	278	*1	*1	*1	*1	*1	*1	20-Jan-91	480
TOTAL				541	226	2955	334	20079	65	1621	277	405	0	0		24912

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON BURROUGHS 7900 (VERIFIED AND DATA BASED

SVERDRUP TECHNOLOGY, INC.
SSC GROUP

MEMORANDUM

File No: 91-4731-421

Date: April 8, 1991

To SEAMAP Users Organization Mail Stop:

From SEAMAP Central Operations

Thru

Subject SEAMAP Version 1.17

Enclosed please find a complete set of diskettes for Southeast Area Monitoring and Assessment Program (SEAMAP) Data Management System (DMS) Version 1.17. The installation program has been included to install updates as well as to perform a first time installation. However, it is written for SEAMAP to be distributed on 3.5 inch floppy diskettes. Refer to attachment one for procedures to install SEAMAP DMS Version 1.17 from 5.25 inch floppy diskettes. Refer to Section 3.1.2 of the SEAMAP DMS Users Manual for installation instructions from 3.5 inch floppy diskettes.

Also enclosed are updates to your current SEAMAP DMS Users Manual. Replace the pages in your manual with the updated pages. Pages which contain a letter after the page number should be placed after the appropriate page. Those are additions to the manual and not replacement pages. Appendix D should be replaced with the updated Appendix.

Below is a list of enhancements made for SEAMAP DMS Version 1.17.

- Several downloading procedures have been enhanced. The SEAMAP user can now submit several downloading jobs at once.
- The Print Program now outputs the system date on the listing.
- The online documentation screen display and print have been enhanced.
- Several entry/edit problems brought to our attention by SEAMAP users have been corrected.
- When building upload files, the user now has an option to cancel if the cruise or vessel number entered was incorrect.

- o If general length frequency data has been entered with an older version of the biocode table, the records can now be re-biocoded by simply displaying the record through SEAMAP.

- o The genus/species tables on three Pascagoula Station Sheets - Type II Gulf, Type II South Atlantic, and Type III - were updated.

- o The biocode, ichthyoplankton gear code, ichthyoplankton mesh code, operation code, and ichthyoplankton area/project code tables were updated.

Also enclosed is an upgraded version of Batch Verification. Refer to the Batch Verification documentation to install Batch Verification. Below is a list of the modifications.

- o Batch Verification has been optimized and should run much faster.

- o When Batch Verification detects an error on a general length frequency genus/species record, the measurement code is now included in the error message.

- o The biocode, ichthyoplankton gear code, ichthyoplankton mesh code, operation code, and ichthyoplankton area/project code tables were updated.

Please complete processing any SEAMAP cruises that are on your system using SEAMAP Version 1.16 prior to installing SEAMAP Version 1.17. The biocode table in SEAMAP Version 1.17 has changed from Version 1.16. The biocode for genus/species records entered using Version 1.16 may not match the biocodes for SEAMAP Version 1.17.

If you have any questions about the SEAMAP DMS, please call SEAMAP Central Operations at (601) 688-3511.

Charlene Burns

Charlene Burns
SEAMAP Central Operations

Enclosures

Attachment 4.

EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
24 FEBRUARY 1991

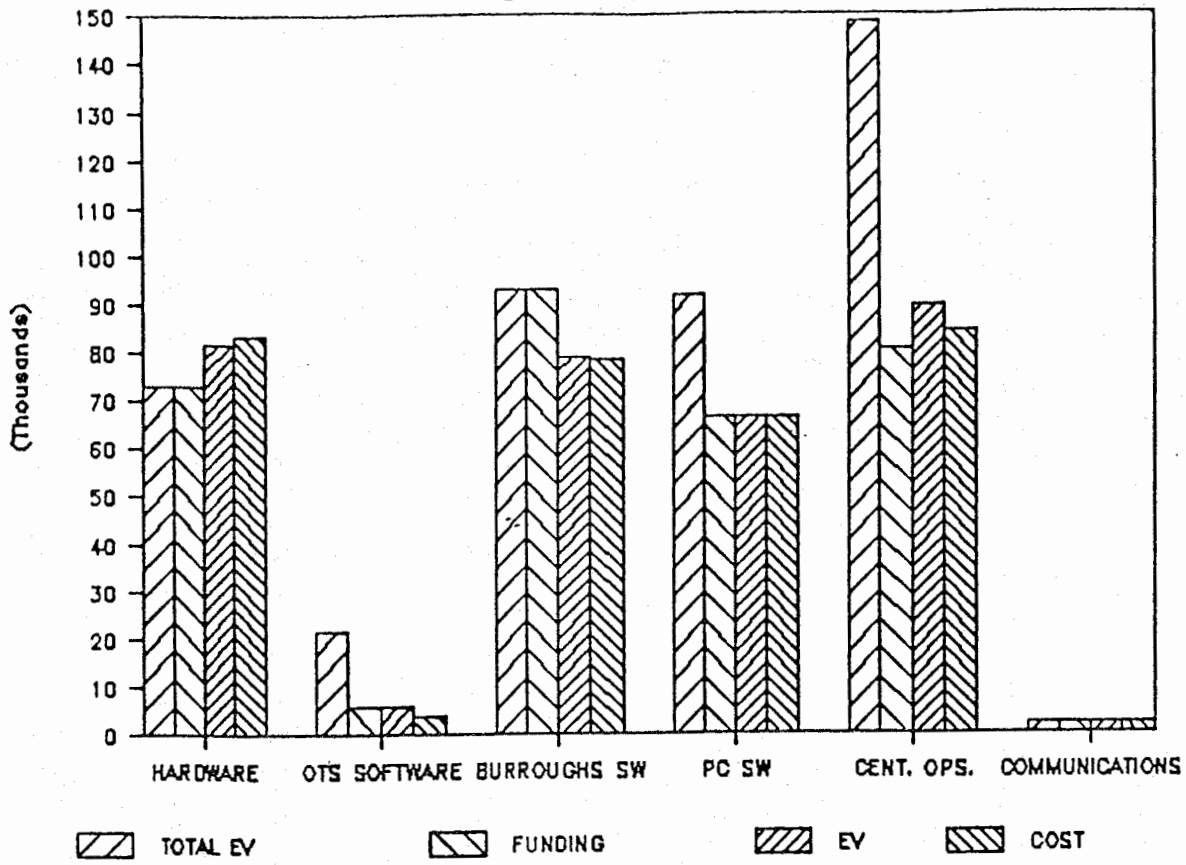
UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EIC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
TOTAL DMS IMP.	--	$432,300	111.7%	$382,579	98.8%	($49,721)	-11.5%	$0	($49,721)	-11.5%	$387,090	$4,511
TOTAL LABOR	--	$304,772	110.4%	$263,079	95.3%	($41,693)	-13.7%	$0	($41,693)	-13.7%	$276,023	$12,944
TOTAL PROC.	--	$125,655	115.1%	$117,627	107.7%	($8,028)	-6.4%	$0	($8,028)	-6.4%	$109,194	($8,433)
TOTAL TRAVEL	--	$1,873	100.0%	$1,873	100.0%	$0	0.0%	$0	$0	0.0%	$1,873	$0
Total HW Cost	--	$81,906	111.8%	$83,322	113.7%	$1,416	1.7%	$0	$1,416	1.7%	$73,251	($10,574)
HW Proc Labor	MF4A34	$3,251	100.0%	$2,748	84.5%	($503)	-15.5%	$0	($503)	-15.5%	$3,251	$0
HW Proc	(NMFS)	$78,655	112.4%	$80,574	115.1%	$1,919	2.4%	0	$1,919	2.4%	$70,000	($10,574)
Total SW Cost	--	$5,751	100.0%	$3,599	62.6%	($2,152)	-37.4%	$0	($2,152)	-37.4%	$5,752	$2,153
SW Proc Labor	MF4A37	$751	99.9%	$740	98.4%	($11)	-1.5%	$0	($11)	-1.5%	$752	$12
SW Proc	(NMFS)	$5,000	100.0%	$2,859	57.2%	($2,141)	-42.8%	0	($2,141)	-42.8%	$5,000	$2,141
Travel Cost	--	$1,873	100.0%	$1,873	100.0%	$0	0.0%	$0	$0	0.0%	$1,873	$0
NMFS	MF4A37	$1,873	100.0%	$1,873	100.0%	$0	0.0%	$0	$0	0.0%	$1,873	$0
Burroughs SW	--	$79,000	84.9%	$78,519	84.4%	($481)	-0.6%	$0	($481)	-0.6%	$93,000	$14,481
Data Handler	MF4A33	$42,500	100.0%	$42,486	100.0%	($14)	0.0%	$0	($14)	0.0%	$42,500	$14
Data Handler	UUPL03-01	$2,000	100.0%	$1,997	99.9%	($3)	-0.2%	$0	($3)	-0.2%	$2,000	$3
Data Handler	UM0012-03	$1,000	100.0%	$991	99.1%	($9)	-0.9%	$0	($9)	-0.9%	$1,000	$9
Reformat	MF4A01	$20,000	100.0%	$19,995	100.0%	($5)	0.0%	$0	($5)	0.0%	$20,000	$5
Reformat 90	MF004A54	$1,000	6.7%	$562	3.7%	($438)	-43.8%	$0	($438)	-43.8%	$15,000	$14,438
On-line Doc	MF4A38	$7,500	100.0%	$7,488	99.8%	($12)	-0.2%	$0	($12)	-0.2%	$7,500	$12
Mbox/Bboard	UM0012-04	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
PC Software	--	$66,500	100.0%	$66,485	100.0%	($15)	0.0%	$0	($15)	0.0%	$66,500	$15
Upload	MF4A32	$32,000	100.0%	$31,997	100.0%	($3)	0.0%	$0	($3)	0.0%	$32,000	$3
Upload	UM0011-02	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
Upload	UM0011-03	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Upload	UUPL03-02	$6,000	100.0%	$6,000	100.0%	$0	0.0%	$0	$0	0.0%	$6,000	$0
Download	MF4A31	$17,500	100.0%	$17,488	99.9%	($12)	-0.1%	$0	($12)	-0.1%	$17,500	$12
Download	UM0012-01	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Download	UM0012-02	$1,000	100.0%	$1,000	100.0%	$0	0.0%	$0	$0	0.0%	$1,000	$0
Analysis/Disp	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0

EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
24 FEBRUARY 1991

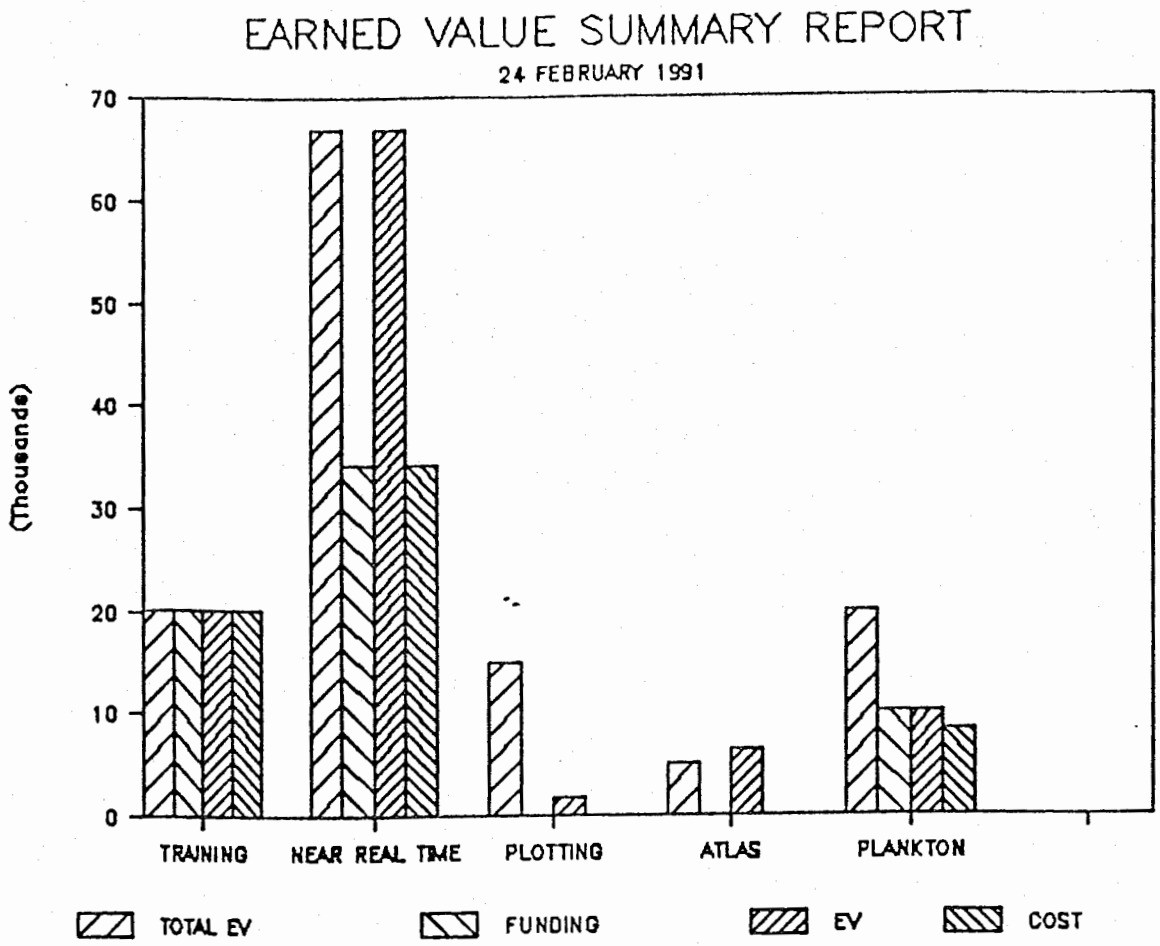
UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EIC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
Central Ops	--	$89,870	111.9%	$84,099	104.7%	($5,771)	-6.4%	$0	($5,771)	-6.4%	$80,320	($3,779)
Sys Mgmt 89	MF4A40	$5,000	100.0%	$5,020	100.4%	$20	0.4%	$0	$20	0.4%	$5,000	($20)
Tech Pub 89	MF4A41	$270	100.0%	$178	65.9%	($92)	-34.1%	$0	($92)	-34.1%	$270	$92
Sys Mgmt 90	MF004A48	$15,000	85.7%	$22,553	128.9%	$7,553	50.4%	$0	$7,553	50.4%	$17,500	($5,053)
Tech Pub 90	MF4A49	$50	100.0%	$22	44.0%	($28)	-56.0%	$0	($28)	-56.0%	$50	$28
Data Process	MF004A53	$10,000	80.0%	$10,409	83.3%	$409	4.1%	$0	$409	4.1%	$12,500	$2,091
PC SW Main 89	MF4A44	$10,000	100.0%	$9,991	99.9%	($9)	-0.1%	$0	($9)	-0.1%	$10,000	$9
PC SW Main 90	MF004A47	$10,000	80.0%	$10,605	84.8%	$605	6.1%	$0	$605	6.1%	$12,500	$1,895
B SW Main 89	MF4A45	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
B SW Main 90	MF004A46	$17,500	100.0%	$20,324	116.1%	$2,824	16.1%	$0	$2,824	16.1%	$17,500	($2,824)
Req 1/88-11/90	(NMFS)	$17,050	0.0%	$0	0.0%	($17,050)	-100.0%	$0	($17,050)	-100.0%	$0	$0
Archival	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Communications	MF4A36	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Training	--	$20,200	100.0%	$20,172	99.9%	($28)	-0.1%	$0	($28)	-0.1%	$20,200	$28
Site Users	MF4A39	$5,000	100.0%	$4,994	99.9%	($6)	-0.1%	$0	($6)	-0.1%	$5,000	$6
Training Prep	UM0012-05	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Gulf Train	UM0012-06	$4,000	100.0%	$4,000	100.0%	$0	0.0%	$0	$0	0.0%	$4,000	$0
S Atl Train	MF4A43	$2,000	100.0%	$1,983	99.2%	($17)	-0.9%	$0	($17)	-0.9%	$2,000	$17
Sys Maint	UM0012-07	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Sys S/W Train	MF4A42	$3,000	100.0%	$2,995	99.8%	($5)	-0.2%	$0	($5)	-0.2%	$3,000	$5
Tech Pub 90	MF4A50	$100	100.0%	$100	100.0%	$0	0.0%	$0	$0	0.0%	$100	$0
Tech Pub 90	MF4A51	$100	100.0%	$100	100.0%	$0	0.0%	$0	$0	0.0%	$100	$0
Near Real Time	--	$67,000	195.9%	$34,194	100.0%	($32,806)	-49.0%	$0	($32,806)	-49.0%	$34,194	$0
Data Ent SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Comm I'face	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
NRT Burr SW	(NMFS)	$10,000	0.0%	$0	0.0%	($10,000)	-100.0%	$0	($10,000)	-100.0%	$0	$0
Port PC SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Antenna Proc	(NMFS)	$30,000	100.0%	$30,000	100.0%	$0	0.0%	$0	$0	0.0%	$30,000	$0
PC HW Proc	(NMFS)	$12,000	286.1%	$4,194	100.0%	($7,806)	-65.1%	$0	($7,806)	-65.1%	$4,194	$0
Plotting	(NMFS)	$1,700	0.0%	$0	0.0%	($1,700)	-100.0%	$0	($1,700)	-100.0%	$0	$0
Atlas	(NMFS)	$6,500	0.0%	$0	0.0%	($6,500)	-100.0%	$0	($6,500)	-100.0%	$0	$0
Plankton	--	$10,000	100.0%	$8,316	83.2%	($1,684)	-16.8%	$0	($1,684)	-16.8%	$10,000	$1,684
Icthyo DB	UM0011-01	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
Icthyo DB	MF004A52	$5,000	100.0%	$3,319	66.4%	($1,681)	-33.6%	$0	($1,681)	-33.6%	$5,000	$1,681

EARNED VALUE SUMMARY REPORT

24 FEBRUARY 1991



Attachment 5 (continued).



TCC SEAMAP SUBCOMMITTEE
MINUTES
Sunday, July 14, 1991
Lajas, Puerto Rico

Chairman Walter Tatum called the meeting to order at 1:10 p.m. The following members and others were present:

Members
Walter Tatum, ADCNR, Gulf Shores, AL
Barney Barrett, LDWF, Baton Rouge, LA
Joe Kimmel, FDNR, St. Petersburg, FL
Richard Waller, GCRL, Ocean Springs, MS
Scott Nichols, NMFS, Pascagoula, MS
Terry Cody (proxy for G. Matlock), TPWD, Rockport, TX

Staff
David Donaldson, SEAMAP Coordinator
Cheryl Noble, Staff Assistant

Others
Ken Savastano, NMFS, Stennis Space Center
Jim Hanifen, LDWF, Baton Rouge, LA

Adoption of Agenda

The agenda was approved with the following additions:

* Data Management Work Group Report
* Discussion of real-time issue

Approval of Minutes

The minutes for the meeting held on April 15, 1991 in Galveston, Texas were approved with several minor changes.

Administrative Report

D. Donaldson reported that Louisiana day/night survey was conducted from March 25 - April 3 by Louisiana vessels. He stated that during the Spring Icthyoplankton survey, NMFS sampled from April 16-30 and from May 10-24 and Florida sampled from May 7-15. He reported the Summer Shrimp/Bottomfish survey was conducted from June 3-July 12. Also, the real-time data mail survey was completed. He reported that questionnaires concerning the usefulness of SEAMAP real-time data were sent with the first mailout and responses are coming in.

* Concerning the real-time issue, W. Tatum read a letter from the Texas Shrimp Association (TSA) concerning pulse fishing apparently caused by the release of SEAMAP real-time data. The subcommittee discussed the need for recommendations concerning this issue to the Gulf States Marine Fisheries Commission. After a lengthy discussion, it was decided that TSA needed to prove that the SEAMAP real-time data really does cause pulse fishing. B. Barrett moved that based on NMFS economic evaluations of the closure its impacts are beneficial and that according to NMFS, this strategy causes localized increases of fishing effort, the SEAMAP subcommittee requests further information from TSA regarding what portion of the total localized increased fishing effort is caused by real-time data dissemination. The motion was passed.

D. Donaldson reported that the 1987 and 1988 Atlases, the 1991 Marine Directory and the 1990 Joint Annual Report have been published since the last Joint meeting. He stated that work is continuing on the 1989 Atlas. All data has been entered and the Atlas should be published in 1991 barring any major problems. D. Donaldson reported that there is a potential increase in SEAMAP funding of $500,000 in the House mark up.

Discussion of the Polish Sorting Center

* W. Tatum stated that at the last SEAMAP meeting it was decided to look into alternative sorting centers for SEAMAP plankton samples. He reported that K. Sherman requested that the SEAMAP subcommittee reconsider their decision to no longer use the Polish Sorting Center (PSC). R. Waller moved that the SEAMAP subcommittee take no further action until the subcommittee receives D. Hoss' report concerning the advisory committee meeting and data from Atlantic Reference Center (ARC) concerning costs etc. for sorting plankton samples. The motion passed.

Discussion of the Crescent Initiative

S. Nichols reported that a review panel is convening to discuss the initiatives. S. Nichols reported that there are seven proposals which are being

considered for funding. He reported that there is no money in the current budget for the Crescent program. He stated that funding for next year does not seem likely.

Data Management Work Group Report

K. Savastano distributed and reviewed the SEAMAP Data Management Report (attached). Items noted included:

- data entry, edit and verification of the Gulf 1989 data is complete. The work on the 1990 data is continuing. The South Atlantic 1989 data is currently being converted to the SEAMAP format and processed through the SEAMAP edit software.
- processing of the 1989 SEAMAP atlas has been initiated and is approximately 15% complete.
- 102 of 104 requests for data have been completed and work is being performed on the remaining requests.
- SEAMAP Data Management efforts continue to be focused on getting the central operations in place and performing the necessary software enhancements to streamline the operational aspects of the system.

Activities and Budget Needs

Participants stated their budgetary requirements if there is level funding for FY1992. S. Nichols reported that there would be a 1.5% tax deducted from any amount awarded to the SEAMAP program. The subcommittee decided that each component of the SEAMAP-Gulf would take 1.5% cut. Taking that into account, level funding figures for FY1992 would be as follows:

Texas - $45,058
Alabama - $64,793
Mississippi - $94,139
Louisiana - $114,799
Florida - $73,336
GSMFC - $92,074

Participants also discussed the possibility of increased funding of approximately $1.4 million. If additional funding was available, participants stated their budgetary needs for FY1992 as follows:

Texas - $65,000 for increase of adult finfish sampling

Alabama - $85,000 for implementation of adult finfish survey

Mississippi - $149,000 for implementation of adult finfish survey, winter plankton survey and necessary equipment

Louisiana - $155,000 for increasing sampling of Louisiana territorial waters

Florida - $112,000 for increase of personnel costs

GSMFC - $103,000 for purchase of computer and increased costs

TOTAL - $669,000

Other Business

R. Waller stated that the TOMMY MUNRO was involved with some comparative tows with OREGON II and PELICAN in Louisiana waters. He reported that during these tows, several areas of hypoxia were encountered. He stated that sampling in these areas is extremely wasteful because a large amount of effort is expended for very little catch. W. Tatum recommended that this issue be studied and discussed by the Shrimp/Bottomfish Work Group and the Plankton Work Group.

There being no further business, the meeting was adjourned at 3:45 p.m.

July 9, 1991

SEAMAP DATA MANAGEMENT

A. Status reports for the 1989 and 1990 Gulf data are shown in Attachments 1 and 2. The South Atlantic 1989 data are currently being converted to the SEAMAP format and processed through the SEAMAP edit software. The first test set which was scheduled for completion by the end of April has been rescheduled for August 15, 1991.

B. The 1989 SEAMAP ATLAS processing has been initiated and is approximately 15% complete.

C. One hundred and four SEAMAP requests have been received to date. One hundred and two have been completed and work is being done on the remaining requests.

D. The SEAMAP real-time system software on the main frame was converted to run on the IBM PS/2. This allows the real-time processing summary reports and computer plots to be accomplished more efficiently and in a shorter period of time. The first three 1991 real-time weekly reports have been produced using the new system.

E. SEAMAP Data Management efforts continue to be focused on getting the data management central operations totally in place and performing the necessary software enhancements to improve and streamline the operational production aspects of the system. The remaining 1990 Gulf data and the South Atlantic 1989/1990 data have not been data based because of limited manpower at the field sites in some cases and the main frame change over (NMFS Burroughs 7900 in Seattle, Washington to NMFS Unysis A10 in Miami, Florida) which occurred during June 1991. A new version of the SEAMAP software will be transmitted to the field sites by the end of July. This new version will have all of the changes requested to process ichthyoplankton data and most of the modifications needed to handled the conversion from the B7900 to the A10.

F. In addition to the current committed money ($421,423) and utilized money ($415,455), $15,077 more was committed to contracts and utilized. Attachments 3 and 4 provide the status of the system modules as of June 23, 1991. Approximately 76% ($456,100) of the total SEAMAP DATA Management's estimated cost of $599,500 has been committed to contracts. Approximately 96% ($436,500) of the committed contract money has been utilized to date.

Kenneth J. Savastano

Attachment 1.

11-Jul-91

SEAMAP 1989

DATA SOURCE	VESSEL	CRUISE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL GENERAL L/F		SHRIMP L/F STATION	SHRIMP L/F L/F	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	DATE DBASED	TOTAL SEAMAP	VERSION
AL	23	891	3	7	7	103	7	363	3	96	*1	*1	*1	*1	14-Mar-90	586	1.16
AL	23	892	3	10	10	200	10	991	7	166	*1	*1	*1	*1	09-May-90	1394	1.16
AL	23	893	3	10	*1	*1	10	*1	*1	*1	10	10			18-Jun-90	30	1.16
AL	23	894	3	12	11	259	12	1452	11	164	*1	*1	*1	*1	21-Jun-90	1921	1.16
FL	36	891	3	25	*1	*1	25	*1	*1	*1	25	75			26-Sep-90	125	1.16
FL	36	892	3	36	*1	*1	36	*1	*1	*1					15-Nov-90	72	1.16
LA	35	891	3	24	24	614	24	7921	21	140					19-Feb-91	8768	1.16
LA	35	892	3	22	22	439	22	4002	17	290					20-Feb-91	4814	1.16
LA	25	893	3	21	21	163	21	1106	11	118					01-Mar-91	1461	1.16
LA	35	894	3	24	24	572	24	4385	24	499					04-Mar-91	5552	1.16
LA	25	895	3	21	21	228	21	1940	11	225					15-Mar-91	2467	1.16
LA	35	896	3	10	10	286	10	2718	9	185	*1	*1	*1	*1	18-Mar-91	3228	1.16
LA	35	897	3	16	16	493	16	3636	16	571					18-Mar-91	4764	1.16
MS	17	891	3	41	34	987	41	7589	21	261	8	22			09-May-90	8996	1.16
MS	17	892	3	5	*1	*1	5	*1	*1	*1	5	15			09-May-90	25	1.16
MS	17	893	3	20	17	568	20	4631	*1	*1	3	9			14-Jun-90	5265	1.16
TX	31	891	3	16	16	174	16	575	9	115	*1	*1	*1	*1	22-Aug-90	921	1.16
TX	32	891	3	16	16	323	16	1992	13	709	*1	*1	*1	*1	22-Aug-90	3085	1.16
TX	33	891	3	16	16	354	16	1967	16	546	*1	*1	*1	*1	22-Aug-90	2931	1.16
TX	34	891	3	16	16	268	16	1481	16	651	*1	*1	*1	*1	22-Aug-90	2464	1.16
TX	40	891	3	16	16	205	16	1035	15	382	*1	*1	*1	*1	22-Aug-90	1685	1.16
TX	31	892	3	16	16	199	16	582	*1	*1	*1	*1	*1	*1	22-Aug-90	829	1.16
TX	32	892	3	16	16	307	16	1826	*1	*1	*1	*1	*1	*1	22-Aug-90	2181	1.16
TX	33	892	3	16	16	312	16	1421	*1	*1	*1	*1	*1	*1	22-Aug-90	1781	1.16
TX	34	892	3	16	16	204	16	1112	*1	*1	*1	*1	*1	*1	22-Aug-90	1364	1.16
TX	40	892	3	16	16	263	16	1462	*1	*1	*1	*1	*1	*1	22-Aug-90	1773	1.16
US	4	179	3	571	438	847	37	2177	*1	*1					27-Oct-90	4070	1.16
US	4	180	3	244	243	4052	188	26051	141	4815	21	63			18-Jun-90	35797	1.16
US	4	183	3	114	*1	*1	114	*1	*1	*1	75	153			27-Sep-90	381	1.16
US	4	184	3	512	490	11999	251	66971	*1	*1	38	120			18-Nov-90	80343	1.16
US	49	892	3	141	*1	*1	138	*1	*1	*1					14-Nov-90	279	1.16
TOTAL				2046	1548	24419	1192	149386	361	9933	185	467	0	0		189352	

Attachment 1 (continued).

11-Jul-91

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON BURROUGHS 7900 (VERIFIED AND DATA BASED)

Attachment 2.

09-Jul-91

SEAMAP 1990

DATA SOURCE	VESSEL	CRUISE	STATUS	INVENTORY	BIOLOGICAL STATION	BIOLOGICAL SPECIES	ENVIRONMENTAL GENERAL L/F	SHRIMP L/F STATION	SHRIMP L/F L/F	ICHTHYOPLANKTON STATION	ICHTHYOPLANKTON SAMPLE	ICHTHYOPLANKTON SPECIES	ICHTHYOPLANKTON L/F	DATE DBASED	TOTAL SEAMAP	VERSION
FL	36	901	3	21	*1	*1	21	*1	*1					30-Oct-90	42	1.16
LA	25	903	3	21	21	142	21	1436	9	202				02-Apr-91	1852	1.16
MS	17	901	3	44	40	1086	44	8868	10	395				11-Jan-91	10487	1.16
MS	17	902	3	107	*1	*1	107	*1	*1	*1				02-May-91	214	1.16
MS	17	903	3	24	24	727	20	4470	*1	*1				22-Feb-91	5265	1.16
TX	31	901	3	16	16	128	16	456	9	69	*1	*1	*1	*1	15-Mar-91	710	1.16
TX	32	901	3	16	16	267	16	1571	11	431	*1	*1	*1	*1	15-Mar-91	2328	1.16
TX	33	901	3	16	16	289	16	1606	14	205	*1	*1	*1	*1	15-Mar-91	2162	1.16
TX	34	901	3	16	16	125	16	608	5	101	*1	*1	*1	*1	15-Mar-91	887	1.16
TX	40	901	3	16	16	120	16	786	7	218	*1	*1	*1	*1	15-Mar-91	1179	1.16
US	4	187	3	290	*1	*1	139	*1	*1	*1	277	405			10-Oct-90	834	1.16
US	28	901	3	136	80	73	62	*1	*1	*1					24-Apr-91	351	1.16
TOTAL				723	245	2957	494	19801	65	1621	277	405	0	0		26311	

STATUS CODES:

*1 NOT TAKEN
2 ENTERED IN P.C.
3 ENTERED ON BURROUGHS 7900 (VERIFIED AND DATA BASED

Attachment 3.

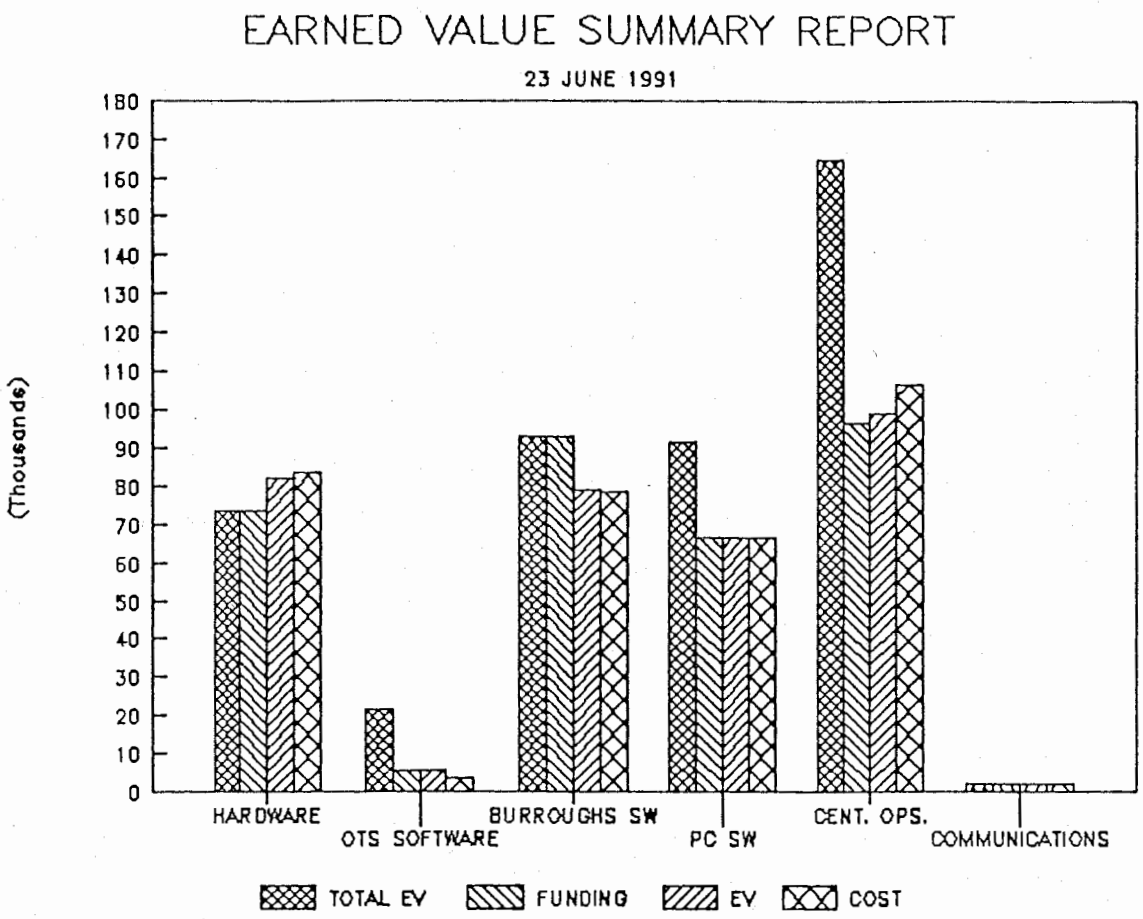
EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
23 JUNE 1991

UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EIC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
TOTAL DMS IMP.	--	$442,227	104.9%	$415,455	98.6%	($26,772)	-6.1%	$0	($26,772)	-6.1%	$421,423	$5,968
TOTAL LABOR	--	$314,172	104.0%	$287,234	95.1%	($26,938)	-8.6%	$0	($26,938)	-8.6%	$302,023	$14,789
TOTAL PROC.	--	$125,655	107.4%	$125,821	107.5%	$166	0.1%	$0	$166	0.1%	$117,000	($8,821)
TOTAL TRAVEL	--	$2,400	100.0%	$2,400	100.0%	$0	0.0%	$0	$0	0.0%	$2,400	$0
Total HW Cost	--	$81,906	111.8%	$83,322	113.7%	$1,416	1.7%	$0	$1,416	1.7%	$73,251	($10,574)
HW Proc Labor	MF4A34	$3,251	100.0%	$2,748	84.5%	($503)	-15.5%	$0	($503)	-15.5%	$3,251	$0
HW Proc	(NMFS)	$78,655	112.4%	$80,574	115.1%	$1,919	2.4%	0	$1,919	2.4%	$70,000	($10,574)
Total SW Cost	--	$5,751	100.0%	$3,610	62.8%	($2,141)	-37.2%	$0	($2,141)	-37.2%	$5,752	$2,142
SW Proc Labor	MF4A37	$751	99.9%	$740	98.4%	($11)	-1.5%	$0	($11)	-1.5%	$752	$12
SW Proc	(NMFS)	$5,000	100.0%	$2,870	57.4%	($2,130)	-42.6%	0	($2,130)	-42.6%	$5,000	$2,130
Travel Cost	--	$2,400	100.0%	$2,400	100.0%	$0	0.0%	$0	$0	0.0%	$2,400	$0
NMFS	MF4A37	$2,400	100.0%	$2,400	100.0%	$0	0.0%	$0	$0	0.0%	$2,400	$0
Burroughs SW	--	$79,000	84.9%	$78,577	84.5%	($423)	-0.5%	$0	($423)	-0.5%	$93,000	$14,423
Data Handler	MF4A33	$42,500	100.0%	$42,486	100.0%	($14)	0.0%	$0	($14)	0.0%	$42,500	$14
Data Handler	UUPL03-01	$2,000	100.0%	$1,997	99.9%	($3)	-0.2%	$0	($3)	-0.2%	$2,000	$3
Data Handler	UM0012-03	$1,000	100.0%	$991	99.1%	($9)	-0.9%	$0	($9)	-0.9%	$1,000	$9
Reformat	MF4A01	$20,000	100.0%	$19,995	100.0%	($5)	0.0%	$0	($5)	0.0%	$20,000	$5
Reformat 90	MF004A54	$1,000	6.7%	$620	4.1%	($380)	-38.0%	$0	($380)	-38.0%	$15,000	$14,380
On-line Doc	MF4A38	$7,500	100.0%	$7,488	99.8%	($12)	-0.2%	$0	($12)	-0.2%	$7,500	$12
Mbox/Bboard	UM0012-04	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
PC Software	--	$66,500	100.0%	$66,485	100.0%	($15)	0.0%	$0	($15)	0.0%	$66,500	$15
Upload	MF4A32	$32,000	100.0%	$31,997	100.0%	($3)	0.0%	$0	($3)	0.0%	$32,000	$3
Upload	UM0011-02	$5,000	100.0%	$5,000	100.0%	$0	0.0%	$0	$0	0.0%	$5,000	$0
Upload	UM0011-03	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Upload	UUPL03-02	$6,000	100.0%	$6,000	100.0%	$0	0.0%	$0	$0	0.0%	$6,000	$0
Download	MF4A31	$17,500	100.0%	$17,488	99.9%	($12)	-0.1%	$0	($12)	-0.1%	$17,500	$12
Download	UM0012-01	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Download	UM0012-02	$1,000	100.0%	$1,000	100.0%	$0	0.0%	$0	$0	0.0%	$1,000	$0
Analysis/Disp	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0

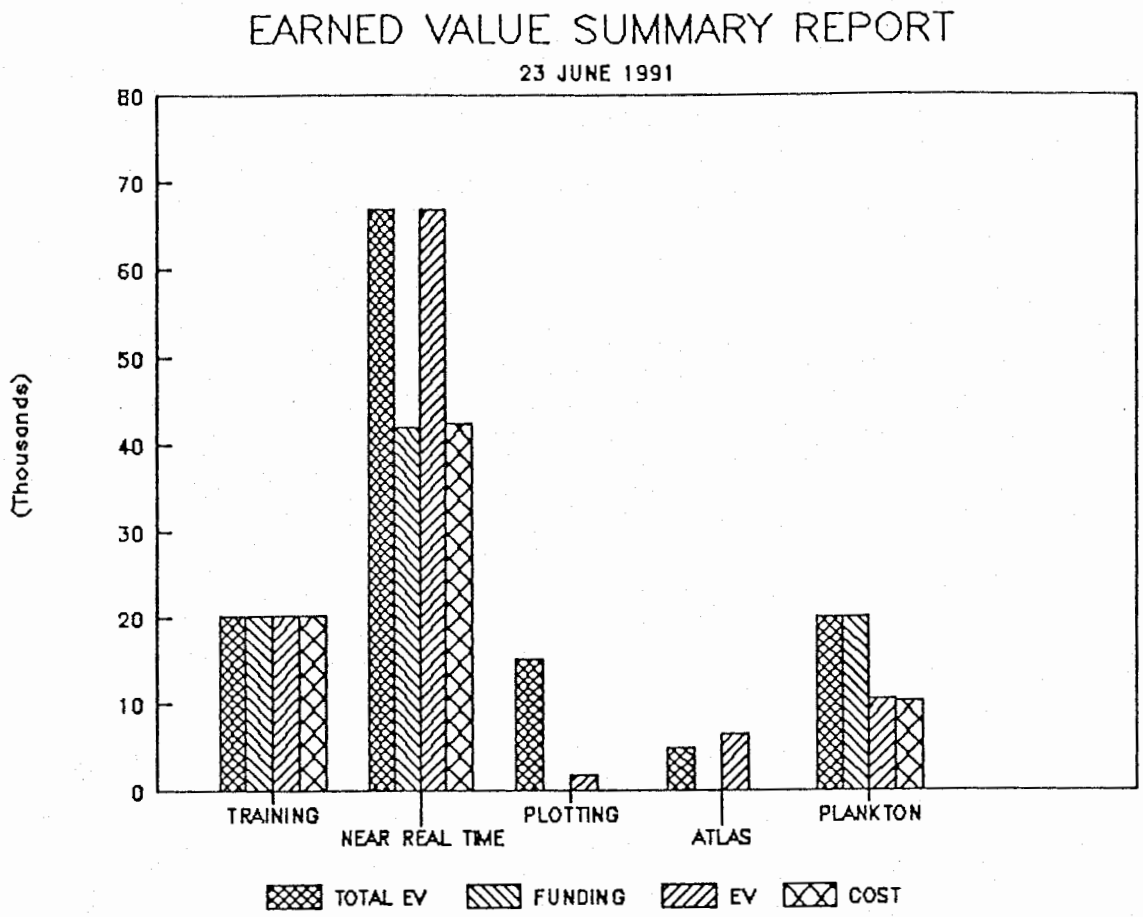
EARNED VALUE SUMMARY REPORT
BASED ON CURRENT FUNDING
SEAMAP DMS IMPLEMENTATION
23 JUNE 1991

UNIT NAME	TWR#	EV TO DATE	%EV	ACTUAL COST	%SPENT	VAR (A-E)	%VAR (VAR/EV)	EIC	NVAR	%NVAR	CURRENT MODULE EV	CURRENT FUNDS REMAINING
Central Ops	--	$98,870	102.6%	$106,323	110.4%	$7,453	7.5%	$0	$7,453	7.5%	$96,320	($10,003)
Sys Mgmt 89	MF4A40	$5,000	100.0%	$5,020	100.4%	$20	0.4%	$0	$20	0.4%	$5,000	($20)
Tech Pub 89	MF4A41	$270	100.0%	$178	65.9%	($92)	-34.1%	$0	($92)	-34.1%	$270	$92
Sys Mgmt 90	MF004A48	$17,500	100.0%	$32,484	185.6%	$14,984	85.6%	$0	$14,984	85.6%	$17,500	($14,984)
Sys Mgmt 91	MF004A58	$1,000	11.8%	$1,050	12.4%	$50	5.0%	$0	$50	5.0%	$8,500	$7,450
Tech Pub 90	MF4A49	$50	100.0%	$22	44.0%	($28)	-56.0%	$0	($28)	-56.0%	$50	$28
Data Process	MF004A53	$12,500	100.0%	$18,965	151.7%	$6,465	51.7%	$0	$6,465	51.7%	$12,500	($6,465)
Data Proc. 91	MF004A57	$500	6.7%	$0	0.0%	($500)	-100.0%	$0	($500)	-100.0%	$7,500	$7,500
PC SW Main 89	MF4A44	$10,000	100.0%	$9,991	99.9%	($9)	-0.1%	$0	($9)	-0.1%	$10,000	$9
PC SW Main 90	MF004A47	$12,500	100.0%	$12,733	101.9%	$233	1.9%	$0	$233	1.9%	$12,500	($233)
B SW Main 89	MF4A45	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
B SW Main 90	MF004A46	$17,500	100.0%	$20,883	119.3%	$3,383	19.3%	$0	$3,383	19.3%	$17,500	($3,383)
Req 1/88-11/90	(NMFS)	$17,050	0.0%	$0	0.0%	($17,050)	-100.0%	$0	($17,050)	-100.0%	$0	$0
Archival	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$0	$0
Communications	MF4A36	$2,000	100.0%	$2,000	100.0%	$0	0.0%	$0	$0	0.0%	$2,000	$0
Training	--	$20,200	100.0%	$20,172	99.9%	($28)	-0.1%	$0	($28)	-0.1%	$20,200	$28
Site Users	MF4A39	$5,000	100.0%	$4,994	99.9%	($6)	-0.1%	$0	($6)	-0.1%	$5,000	$6
Training Prep	UM0012-05	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Gulf Train	UM0012-06	$4,000	100.0%	$4,000	100.0%	$0	0.0%	$0	$0	0.0%	$4,000	$0
S Atl Train	MF4A43	$2,000	100.0%	$1,983	99.2%	($17)	-0.9%	$0	($17)	-0.9%	$2,000	$17
Sys Maint	UM0012-07	$3,000	100.0%	$3,000	100.0%	$0	0.0%	$0	$0	0.0%	$3,000	$0
Sys S/W Train	MF4A42	$3,000	100.0%	$2,995	99.8%	($5)	-0.2%	$0	($5)	-0.2%	$3,000	$5
Tech Pub 90	MF4A50	$100	100.0%	$100	100.0%	$0	0.0%	$0	$0	0.0%	$100	$0
Tech Pub 90	MF4A51	$100	100.0%	$100	100.0%	$0	0.0%	$0	$0	0.0%	$100	$0
Near Real Time	--	$67,000	159.5%	$42,377	100.9%	($24,623)	-36.8%	$0	($24,623)	-36.8%	$42,000	($377)
Data Ent SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Comm I'face	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
NRT Burr SW	(NMFS)	$10,000	0.0%	$0	0.0%	($10,000)	-100.0%	$0	($10,000)	-100.0%	$0	$0
Port PC SW	(NMFS)	$5,000	0.0%	$0	0.0%	($5,000)	-100.0%	$0	($5,000)	-100.0%	$0	$0
Antenna Proc	(NMFS)	$30,000	100.0%	$30,000	100.0%	$0	0.0%	$0	$0	0.0%	$30,000	$0
PC HW Proc	(NMFS)	$12,000	100.0%	$12,377	103.1%	$377	3.1%	$0	$377	3.1%	$12,000	($377)
Plotting	(NMFS)	$1,700	0.0%	$0	0.0%	($1,700)	-100.0%	$0	($1,700)	-100.0%	$0	$0
Atlas	(NMFS)	$6,500	0.0%	$0	0.0%	($6,500)	-100.0%	$0	($6,500)	-100.0%	$0	$0
Plankton	--	$10,400	52.0%	$10,189	50.9%	($211)	-2.0%	$0	($211)	-2.0%	$20,000	$9,811
Ich/Zoo	UM0011-01	$5,000	100.0%	$4,997	99.9%	($3)	-0.1%	$0	($3)	-0.1%	$5,000	$3
Ich/Zoo	MF004A52	$3,400	68.0%	$3,320	66.4%	($80)	-2.4%	$0	($80)	-2.4%	$5,000	$1,680
Ich/Zoo	MF004A56	$2,000	23.5%	$1,872	22.0%	($128)	-6.4%	$0	($128)	-6.4%	$8,500	$6,628
Ich/Zoo DB	NCF	$0	0.0%	$0	0.0%	$0	0.0%	$0	$0	0.0%	$1,500	$1,500

Attachment 4.



Attachment 4 (continued).



APPENDIX II

SEAMAP-GULF OF MEXICO

OPERATIONS PLAN

January 1, 1992 - December 31, 1992

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).

Organizations directly involved in planning and managing the Gulf's program are the marine fishery management agencies of Florida, Alabama, Mississippi, Louisiana, Texas, the National Marine Fisheries Service, Gulf of Mexico Fishery Management Council and the Gulf States Marine Fisheries Commission which administers the Gulf program. Sea Grant Directors are also asked to attend and participate in SEAMAP-Gulf Subcommittee meetings.

A five year Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 was produced in 1990 for SEAMAP-Gulf outlining goals and objectives; management structure and responsibilities; data collection activities along with management and dissemination of the data; and financial and personnel resources necessary for successful operation of the program. This Management Plan, along with the 1981 SEAMAP Strategic Plan and SEAMAP Operations Plan: 1985-1990 should be considered as charter documents defining and guiding operations of the Gulf program. An external review of SEAMAP-Gulf and South Atlantic was performed in 1987, and endorsement of specific recommendations was by consensus of the joint SEAMAP-Gulf Subcommittee and SEAMAP-South Atlantic Committee. These recommendations, as implemented, will guide activities and operations of SEAMAP-Gulf, as well as the South Atlantic and Caribbean components.

Five major goals were outlined in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 and remain as key missions:

(1) Collect long-term standardized fishery-independent data on the condition of regional living marine resources and their environment.

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

(3) Identify and describe existing non-SEAMAP data bases and activities that are of value in fishery-independent assessments of regional living marine resources.

(4) Operate the SEAMAP Information System for efficient management and timely availability of fishery-independent data and information.

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

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

The SEAMAP-Gulf and South Atlantic committees, meeting jointly in January 1988, accepted the Program Review recommendation to develop separate annual operations plans. This fourth SEAMAP-Gulf Annual Operations Plan describes planned activities and events for the period January 1, 1992 through December 31, 1992. Detailed information on Gulf program objectives, activities, administrative procedures, data management protocols, information dissemination and funding requirements are found in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 (Atlantic States Marine Fisheries Commission 1990).

SURVEYS

Spring and Fall Plankton Surveys

The objectives of the spring and fall plankton surveys are to provide data on the distribution and abundance of eggs and larvae of commercial and recreational species such as bluefin tuna, mackerels, carangids, sciaenids and clupeids. Station locations are in a systematic grid across the northern Gulf in increments of 30 degrees latitude/longitude. Frontal satellite-determined boundary locations are also sampled during the Spring Survey.

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

Hydrographic data at all stations will include at a minimum surface chlorophylls, salinity, temperature and dissolved oxygen from surface, midwater and near bottom and forel-ule color.

Right bongo samples and neuston samples collected by the states in 1991 from SEAMAP stations will be stored until an alternative sorting center can be

selected. Left bongo and neuston samples from previous surveys are currently archived at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi.

Summer Shrimp/Bottomfish Survey

Objectives of this survey are to:

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

(2) aid in evaluating the "Texas Closure" management measure of the Gulf Council's Shrimp FMP;

(3) provide information on shrimp and bottomfish stocks across the northern Gulf from inshore waters to 50 fm;

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

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

The sampling strategy will include sites chosen randomly in three areas (east of the Mississippi River, west of the River to the Texas-Louisiana border and off Texas) stratified by depth and statistical area. Trawls will be towed perpendicular to the depth contours and cover a 1-fm depth stratum at each station. Plankton samples will be taken along a 1/2 degree grid system. Louisiana will take plankton samples at each trawl station.

Fall Shrimp/Groundfish Survey

Objectives of this survey will be to:

(1) sample the northern Gulf of Mexico to determine abundance and distribution of white shrimp and other demersal organisms from inshore waters to 50 fm;

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

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

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

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

Louisiana Seasonal Day/Night Trawl Surveys

These surveys provide comparative information on the abundance and distribution of critical life stages of major Gulf species, especially shrimp, and associated environmental parameters.

Sampling will be conducted in March, July, October and December 1991. A stratified random station design with 48 planned locations will be sampled at day and night with 40-ft nets. Stations will be located along transects or randomly selected. The July sampling will be conducted as part of the SEAMAP Summer Shrimp/Bottomfish Survey.

Additionally, LDWF will conduct 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 are 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 will be done along 7 transects, to depths of 5 fm. All organisms are identified, weighed and measured. Transects correspond to seven coastal study areas sampled previously. Plankton and environmental sampling are conducted at all stations. Processing of environmental data including bottom sediments and top and bottom chlorophylls will be done at LDWF. Plankton samples will be sorted for ichthyoplankon at the LDWF Plankton Laboratory. Specimens and data will be shipped to the SEAMAP Archiving Center in St. Petersburg, FL.

OPERATIONS

The following activities and events by participant comprise the SEAMAP-Gulf of Mexico operations schedule for the period January 1, 1992 to December 31, 1992:

Texas Parks and Wildlife Department

(1) Summer Shrimp/Bottomfish Survey: June/July, nearshore and offshore Texas waters.

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

(3) SEAMAP Subcommittee and work group meetings as scheduled.

(4) Plan and coordinate a pilot study for sampling adult finfish in the Gulf of Mexico.

(5) Plan and coordinate a pilot study for sampling reef fish in the Gulf of Mexico.

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

Louisiana Department of Wildlife and Fisheries

(1) Seasonal Trawl Surveys: March, July, October and December (July in conjunction with Summer Shrimp/Groundfish Survey).

(2) Territorial Sea Survey: July and November (in conjunction with Summer and Fall Shrimp/Groundfish Surveys).

(3) Plankton sampling in conjunction with trawl surveys.

(4) Plankton sample sorting.

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

(6) Process sediment and chlorophyll samples.

(7) Plan and coordinate a pilot study for sampling adult finfish in the Gulf of Mexico.

(8) Plan and coordinate a pilot study for sampling reef fish in the Gulf of Mexico.

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

Mississippi Department of Wildlife Conservation
Gulf Coast Research Laboratory

(1) Summer Shrimp/Bottomfish Survey: June and July, Gulf waters.

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

(3) Fall Shrimp/Groundfish Survey: November, Gulf waters.

(4) Plankton sampling in conjunction with trawl surveys.

(5) SEAMAP Invertebrate Archiving Center operations.

(6) SEAMAP Subcommittee and work group meetings as scheduled.

(7) Plan and coordinate a pilot study for sampling adult finfish in the Gulf of Mexico.

(8) Plan and coordinate a pilot study for sampling reef fish in the Gulf of Mexico.

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

Alabama Department of Conservation and Natural Resources

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

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

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

(4) Plankton sampling in conjunction with trawl surveys.

(5) SEAMAP Subcommittee and work group meetings as scheduled.

(6) Quarterly estuarine shrimp/groundfish sampling.

(7) Plan and coordinate a pilot study for sampling adult finfish in the Gulf of Mexico.

(8) Plan and coordinate a pilot study for sampling reef fish in the Gulf of Mexico.

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

Florida Department of Natural Resources

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

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

(3) SEAMAP Archiving Center operations.

(4) SEAMAP Subcommittee and work group meetings as scheduled.

(5) Plan and coordinate a pilot study for sampling adult finfish in the Gulf of Mexico.

(6) Plan and coordinate a pilot study for sampling reef fish in the Gulf of Mexico.

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

National Marine Fisheries Service, Southeast Fisheries Center

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

(2) Summer Shrimp/Bottomfish Survey: June-July, offshore Gulf waters.

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

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

(5) Reef Fish Survey: March, offshore Gulf waters.

(6) Plankton sampling in conjunction with trawl surveys.

(7) Data Management System development, implementation and operations.

(8) Processing and transhipment of NMFS plankton samples to Polish Sorting Center.

(9) Environmental sample processing.

(10) Real-time data processing.

(11) SEAMAP Subcommittee and work group meetings as scheduled.

Gulf of Mexico Fishery Management Council

(1) SEAMAP Subcommittee and work group meetings as scheduled.

(2) Annual review of fisheries-independent data needs.

Gulf States Marine Fisheries Commission

(1) Coordination of meetings for Subcommittee and work groups.

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

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

(4) SEAMAP Subcommittee and work group meetings, as scheduled.

(5) Annual Operations Plan development.

INFORMATION DISSEMINATION

Data produced from SEAMAP-Gulf of Mexico surveys and studies will be entered into the SEAMAP Data System, in accordance with procedures and protocols stated in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995. User policies and procedures are also defined in this document.

The SEAMAP Archiving Center (SAC) and Invertebrate Plankton Archiving Center (SIPAC) have the responsibility of maintaining SEAMAP specimens and samples, processing specimen requests and insuring that archiving and loans are

carried out in accordance with guidelines and policies established by the SEAMAP Subcommittee. Specific duties and responsibilities of the curators are found in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan 1990-1995.

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

(1) SEAMAP Joint Annual Report, in conjunction with SEAMAP-South Atlantic and SEAMAP-Caribbean.

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

(3) 1992 SEAMAP Marine Directory.

(4) Minutes of Subcommittee meetings.

(5) Summaries of work group meetings.

(6) SEAMAP Environmental and Biological Atlas

(7) Annual Operations Plan.

(8) Real-time Data Summaries of the Summer Shrimp/Groundfish Cruise.

(9) SEAMAP Cruise Logs/reports.

ADMINISTRATION

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

SEAMAP-Gulf of Mexico Subcommittee

The Subcommittee will convene for four regularly-scheduled meetings during calendar year 1992:

(1) Planning meeting: January/February.

(2) Spring meeting (in conjunction with the GSMFC Annual Spring Meeting): April.

(3) Joint Programs budget meeting (with SEAMAP-South Atlantic and SEAMAP-Caribbean): July.

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

Other meetings may be called at the discretion of the Chairman.

Specific responsibilities of the Subcommittee and procedures of governance are described in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 (ASMFC 1990).

Designated members for calendar year 1992 are:

Texas Parks and Wildlife Department: Gary Matlock

Louisiana Department of Wildlife and Fisheries: Barney Barrett

Mississippi Department of Wildlife, Fisheries and Parks
Gulf Coast Research Laboratory: Richard Waller

Alabama Department of Conservation and Natural Resources: Walter Tatum

Florida Department of Natural Resources: Joe Kimmel

National Marine Fisheries Service: Scott Nichols

Gulf of Mexico Fishery Management Council: Wayne Swingle (non-voting)

Work Groups

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

SEAMAP-Gulf work groups and membership, at present, include:

PLANKTON WORK GROUP

Joanne Shultz, Leader
Gulf Coast Research Laboratory

Jack Gartner
Curator, SEAMAP Archiving Center
Florida Dept. of Natural Resources

Churchill Grimes
National Marine Fisheries Service
Panama City Laboratory

Ken Stuck, Curator
SEAMAP Invertebrate Plankton
Archiving Center
Gulf Coast Research Laboratory

Mark Leiby
Florida Dept. of Natural Resources

Alonzo Hamilton
National Marine Fisheries Service
Pascagoula Laboratory

Harriet Perry
Gulf Coast Research Laboratory

Richard Shaw
Louisiana State University

Don Hoss
National Marine Fisheries Service
Beaufort Laboratory

John Kern
Louisiana Dept. of Wildlife
and Fisheries

SHRIMP/BOTTOMFISH WORK GROUP

Stevens Heath, Leader
Alabama Department of Conservation and
Natural Resources

Billy Fuls
Texas Parks and Wildlife Dept.

Jim Hanifen
Louisiana Dept. of Wildlife
and Fisheries

Edward Klima
National Marine Fisheries Service
Galveston Laboratory

Terry McBee
Gulf Coast Research Laboratory

Scott Nichols
National Marine Fisheries Service
Pascagoula Laboratory

Butch Pellegrin
National Marine Fisheries Service
Pascagoula Laboratory

ENVIRONMENTAL DATA WORK GROUP

Warren Stuntz, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Charles Eleuterius
Gulf Coast Research Laboratory

Thomas Leming
National Marine Fisheries Service
Mississippi Laboratories

Ken Haddad
Florida Department of Natural Resources

Ron Gouguet
Louisiana Department of Wildlife
Fisheries

RED DRUM WORK GROUP

Thomas McIlwain, Leader
Gulf Coast Research Laboratory

Richard Condrey
Louisiana State University

Larry McEachron
Texas Parks and Wildlife Dept.

Mike Murphy
Florida Department of Natural
Resources

Mark Van Hoose
Alabama Department of Conservation
and Natural Resources

Walter Nelson
National Marine Fisheries Service
Pascagoula Laboratory

Joseph Shepard
Louisiana Department of Wildlife and
Fisheries

DATA COORDINATING WORK GROUP

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

Stevens Heath
Alabama Dept. of Conservation
and Natural Resources
Shrimp/Groundfish Work Group

Thomas McIlwain
Gulf Coast Research Laboratory
Red Drum Work Group

Joanne Shultz
Gulf Coast Research Laboratory
Plankton Work Group

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

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

Terry McBee
Gulf Coast Research Laboratory

Chris Gledhill
National Marine Fisheries Service
Pascagoula Laboratories

Mark Van Hoose
Alabama Department of Conservation and
Natural Resources

ADULT FINFISH WORK GROUP

Scott Nichols, Leader
National Marine Fisheries Service
Pascagoula Laboratory

Billy Fuls
Texas Parks and Wildlife Dept.

Joe Kimmel
Florida Dept. of Natural Resources

James Warren
Gulf Coast Research Laboratory

Tom McIlwain
Gulf Coast Research Laboratory

John Roussel
Louisiana Dept. of Wildlife & Fisheries

Bob Shipp
University of South Alabama

Joanne Shultz
Gulf Coast Research Laboratory

Wayne Swingle
Gulf of Mexico Fishery Management Council

SEAMAP work groups will meet as determined by work group leaders. Specific responsibilities of the work groups are described in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 (ASMFC 1990).

Coordinator

The Coordinator's primary responsibility is to assist the Subcommittee in ensuring that the SEAMAP-Gulf system functions efficiently and satisfies user requirements. The Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 (ASMFC 1990), schedule of events, survey plans, and GSMFC directives constitute the basic documents by which the Coordinator monitors program status, coordinates Subcommittee meetings and operations, anticipates potential problems, and initiates corrective action.

Specific responsibilities of the Coordinator are described in the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1990-1995 (ASMFC 1990).

Gulf States Marine Fisheries Commission

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