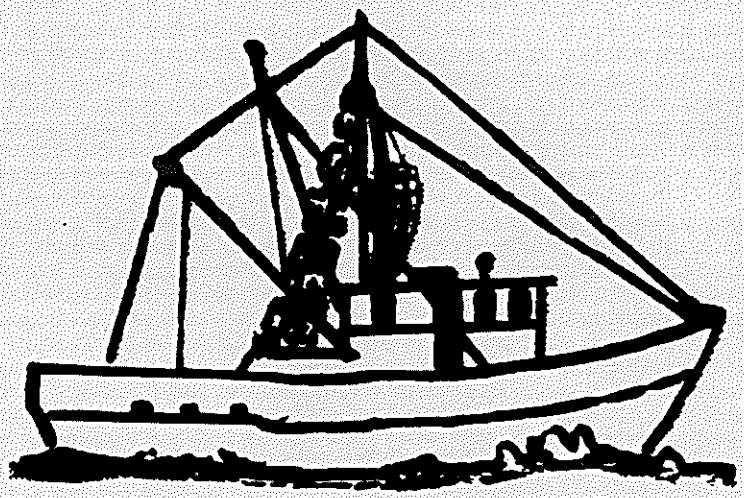
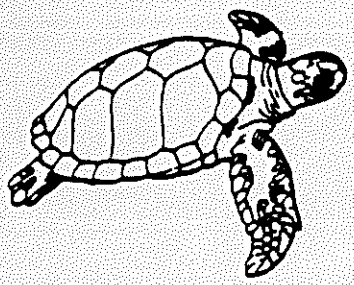
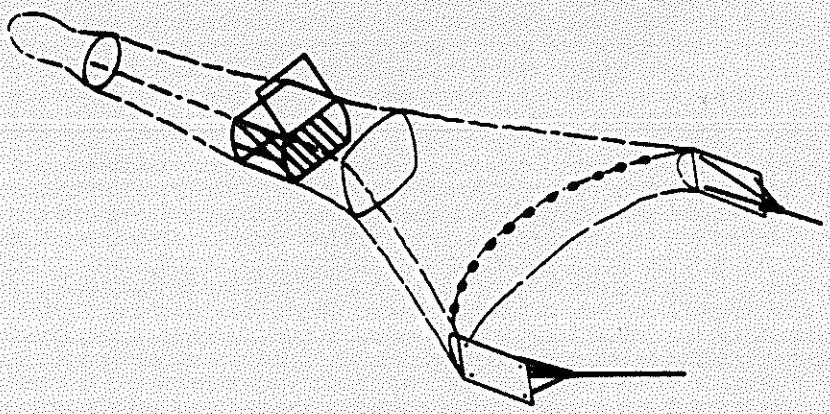
FISCAL YEAR 1988

NATIONAL MARINE FISHERIES SERVICE SOUTHEAST REGION

ENDANGERED SPECIES PROGRAM PLAN







Fiscal Year 1988

National Marine Fisheries Service Southeast Region

Endangered Species Program Plan

Approved By:	Approved By:
Richard J. Berry	Craig R. O'Connor
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Signature	Signature
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Date	Date

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I. Introduction - This plan sets forth the management and research actions planned for sea turtles by the NMFS Southeast Regional Office and Southeast Fisheries Center in FY88. It also describes projects by the Shrimp Industry, Sea Grant and States related to the TED and sea turtles.

Although there are several groups of Endangered Species in the region e.g., whales, the shortnose sturgeon and sea turtles, this plan is directed almost exclusively at sea turtles because there are far more human-related interactions with sea turtles in the southeast in the marine environment than with other endangered species. Also, management activities on endangered whales and the shortnose sturgeon are handled through Section 7 consultations in the regional office; research on endangered whales is conducted under the Center's marine mammal program and some research on shortnose sturgeon is being conducted by states under federal grant programs.

There are many short and long-term management needs for information on sea turtles. Managers need to know causes of natural and non-natural mortality and methods to reduce this latter mortality, growth rates, ages, population sizes, distribution and abundance patterns by species, sex ratios and other information on the biology of sea turtles.

Largely as a result of the recent major rulemaking offering further protection to sea turtles, short term management needs

are the driving force for the FY88 plan and will be for the 1989 and 1990 program plans. Many of these needs are mandated by the Office of Management and Budget (OMB) and the Congress because of the rulemaking requiring the use of turtle excluder devices or reduced tow times by shrimpers in the Southeastern United States. In the rules published in June, 1987, OMB inserted language (appendix A) which requires NOAA to conduct a detailed evaluation of the rules by January 1990. This evaluation must include information on; 1) whether qualified TEDs effectively exclude sea turtles; 2) whether there are alternate performance/design standards for qualifying TEDs and their cost, and 3) whether the testing and qualifying procedures for TEDs are the most efficient possible. The Congress is also calling for additional information to evaluate the effect of the rules on sea turtle mortality, habitat and on shrimp catches. Language in the House FY88 appropriation committee report (appendix A) requires the Department to; 1) continue its studies of TEDs and include new data and statistical evaluations on the full economic impact of TEDs on any shrimp losses, 2) evaluate the impact of TEDs on nearshore and inshore waters including marsh areas, and oyster reefs; 3) determine the mortality rate of sea turtles in these waters; 4) investigate alternate methods of protecting sea turtles such as hatchery programs, and 5) report on negotiations with foreign countries on protecting sea turtles. The committee report calls for progress reports on these studies every 60 days.

To effectively meet these requirements will require not only a comprehensive effort by the NMFS Southeast Region, but assistance from the Fish and Wildlife Service and States which share jurisdiction for sea turtles, Sea Grant, the extension arm of NOAA, and the Shrimp Industry.

The Gulf and South Atlantic Fisheries Development Foundation, through the MARFIN and Saltonstall-Kennedy (S-K) programs, is coordinating this assistance from Sea Grant and the Shrimp Industry. Foundation proposals under MARFIN and S-K were recently approved that make available $862,000 ($535K MARFIN and $326K S-K pending) in 1988-89 for TED testing, extension activities and the collection of shrimp and turtle capture information by the nine Sea Grant University systems and the Shrimp Industry in the southeast. Project descriptions of these activities are presented as a part of this plan. The states also will contribute to TED testing and evaluation and sea turtle studies through both regular state programs and state/federal cooperative projects supported by both base and MARFIN funding. These activities are also described herein. Contributing activities of the Fish and Wildlife Service will be added to this plan at a later date.

Project Descriptions-NMFS

(Regional Office)

Program Management - $78K ($68K base and $10K MARFIN) and 2 Full Time Equivalents (FTE) are devoted to this project. Project goals are to; 1) monitor the effectiveness of the TED regulations; 2) amend the regulations to certify new TEDs and for other purposes; 3) inform Sea Grant, the fishing industry and others of sea turtle protection requirements; 4) conduct Section 7 consultations; 5) administer MARFIN and S-K grants relating to TED use; and 6) coordinate with the Minerals Management Service and the Corps of Engineers on oil rig removals and channel dredging to reduce the impacts of their activities on sea turtles and marine mammals.

Project Descriptions-NMFS

(Southeast Fisheries Center)

1. TED Technology Transfer and Certification - $244K and 3 FTEs (at Pascagoula) are allocated to this project. $104K in base funds, $100K in MARFIN funds (to be transferred from the Regional Office to the Center if FY87-88 carry-over is allowed) and $40K for TED certification (transferred from NMFS headquarters if carry-over is allowed.) This project has four goals: 1) to test, by contract trawler, all qualified TEDs so that NMFS gear specialists can develop expertise on non-NMFS TEDs and to gather and make available performance information on these TEDs; 2) to evaluate the performance of soft TEDs in releasing small size class turtles; 3) to provide technical assistance to the domestic shrimp industry and foreign governments in TED use. This will include establishment of a toll free 800 number to answer shrimper's questions about TEDs and, 4) to supervise the testing of TEDs for certification.

2. Economic Evaluation of TED Use and 90 Minute Tow Times in Offshore Waters - $190K in base funds and 2 FTEs (at Galveston) will be allocated to an observer program to collect shrimp catch information from vessels using TEDs in representative offshore areas of the Gulf and South Atlantic. This is an inhouse study. Approximately 6000

observer hours of effort from three Gulf locations and 1000 observer hours from the South Atlantic will be used to collect shrimp and turtle catch data.

The primary goal of this project is to collect and analyze shrimp catch information from vessels with and without TEDs. The data will be collected by the Center and analyzed by the Regional Office. Turtle capture data will also be collected but the level of effort is considered too small to provide much usable information.

$82K ($62K in base funds and four FTE port agents in various Gulf locations and $20K in MARFIN funds for data entry and analysis) will be used to determine the impact of 90 minute tow times in inshore waters. These port agents will collect shrimp catch and effort data and information on length of tows. Other information on shrimp catch in inshore waters may be available from a MARFIN project by Louisiana State University to study the economic of the Louisiana shrimp fishery.

3. Evaluation of Turtle Mortality in Inshore Waters - The port agents identified in project 2 will also attempt to collect information on turtle capture rates by shrimpers in inshore waters. Supplemental information will be collected through several small contracts issued under the distribution and abundance and stranding projects. Information collected will

be from interviews. Interview data is not the most desirable way to collect data on sea turtle incidental catch/mortality and tow times. A better way to conduct this evaluation is through a large scale vessel observer program. The cost of this observer program has been estimated at more than $1 million. Available resources do not allow for an observer program of this scale in 1988 and supplemental funding will be requested.

4. Evaluation of Regulations on Turtle Mortality Through Strandings - $120K and 2 FTEs (at Galveston) will be devoted to this project. $60K in NMFS MARFIN and $60K in base funds will be used for collecting standardized stranding information in several index areas of the Gulf and South Atlantic. This project is supplemented by $30K in MARFIN funds to the Louisiana Wildlife and Fisheries Commission, $40K in MARFIN funds to the Florida Department of Natural Resources, as well as a $50K contract to NMFS Galveston to collect stranding information with entanglement funds (this project is reported under other sources of mortality).

The goal of this project is to systemically sample index areas for turtle strandings both pre and post TED use. The index areas selected are identified on the maps in appendix 2 and 3 are: Gulf Zones 17 and 19 with $40K NMFS MARFIN; Zones 10-12 with $20K NMFS MARFIN; and Zones 4 and 5 with $40K in FDNR MARFIN funds. South Atlantic Zones 28, 29 and 30 will

be covered with $40K in base funds and $10K each will be used for zones 31 and 32. $3K of the $40K for zones 28, 29 and 30 will include necropsies of stranded animals to determine cause of mortality. A portion of the effort in zone 32 (S.C.) will involve releasing dead turtles from vessels offshore to determine the number and location where these turtles strand.

5a. Other Sources of Mortality - $30K NMFS MARFIN in funds and 1 FTE (at Galveston) are devoted to this project to necrospy stranded sea turtles in Texas. NMFS observers funded by MMS or the oil companies also contribute to this project to monitor and determine the impact of oil rig removals on sea turtles. $125K from the Minerals Management Service is pending to develop mitigating measures for sea turtles and marine mammals from explosive removals.

The goals of this project are to 1) monitor the effects of oil rig removals on sea turtles and marine mammals and 2) to attempt to determine cause of mortality of stranded sea turtles. This project is supported by NMFS projects b and c and a University of Florida project ($35K) on marine debris.

5b. Impact of Ingested Debris on Sea Turtles - This is a contract project administered by the NMFS Panama City lab. $50K will be devoted to this project in FY88. The project goal is to determine whether the swallowing of plastic debris by sea

turtles has harmful effects and to establish how serious this harm might be.

5c. Debris, Entanglement, Strandings and Causes of Death in Sea Turtles - An estimated 1 FTE (at Galveston) and $50.0K are devoted to this project in FY88. Project goals are to complement the existing sea turtle stranding network, systematically sample and examine stranded turtles for debris and entanglement materials, analyze stomach contents of stranded sea turtles to determine cause of death and determine spatial and temporal aspects of types and amounts of debris and entanglement materials.

6. Distribution and Abundance (Kemp's ridleys and greens) - $114K and 2 FTEs (at Panama City) are devoted to this project. This project includes six small contracts to scientists and commercial fisherman to tag, weigh and measure green and Kemp's ridley sea turtles in the northern and eastern Gulf and South Atlantic and a tag retention and growth study of green turtles in the Bahamas.

Project goals are to; 1) define the distribution and abundance of Kemp's ridley and green turtles; 2) gather incidental catch data of turtles in the South Atlantic, and 3) measure growth rates of green turtles.

7. Marine Turtle Tagging Program - $10K is devoted to this project. Salary cost for project management is covered in the data analyses project. Project goals are to distribute tags to fisherman and sea turtle researchers and enter tag return data to support age and growth studies, distribution and abundance studies and collect incidental catch information.

8. Kemps ridley Headstarting - $152K ($77K in base funds and $75K in MARFIN funds) and 3 FTEs (at Galveston) are devoted to this project. Project goals are to; 1) grow and release yearling Kemp's ridley sea turtles to assist in species recovery; 2) expand headstart facilities; 3) collect and report information on incidental catch and mortality of headstarted turtles; 4) determine age and growth rates of captive Kemp's ridleys, and 5) conduct research on alternate tagging methods.

9. Data Analysis - $131K and 4 FTEs (at Miami) are devoted to this project. Funds cover salaries of the stranding network coordinator, two data entry clerks and a program assistant. $52K is devoted to computer costs.

Project goals are to; 1) administer the Sea Turtle Stranding and Salvage Network, 2) administer the tagging network, and 3) provide program assistance for the 2nd Western Atlantic Turtle Symposium (WATS II).

10. WATS II - $30K and no FTE will be devoted to this project. The project goal is coordinate the 2nd Western Atlantic Turtle Symposium and publish a report of the proceedings. The proceedings will serve as the basis for the agencies' 5-Year Status Review of Sea Turtles.

11. Program Management - $0 endangered species funds and 1 FTE are devoted to this project which provides overall coordination for research. Project reports will be provided on a quarterly or as needed basis.

Project Descriptions-Sea Grant

(As defined in the Gulf and South Atlantic Fisheries Development Foundation FY87-88 MARFIN and S-K Proposals)

1. Introduction of the TED to the Gulf Shrimp Fisheries (MARFIN) - $240.3K will be devoted to this project in FY88-89. The number of FTEs working on this project is estimated as 3, one part time person from each Gulf Sea Grant extension program. Project goals are: 1) to familiarize Gulf shrimp fishermen, both inshore and offshore with TEDs; 2) to evaluate TED performance relative to handling efficiency, shrimp production, and elimination of by-catch; and 3) to conduct workshops for net shop owners on design and construction of TEDs.

2. Engineering and Gear Performance on Shrimp Trawls Fitted with TED (MARFIN-Georgia Sea Grant) - $50K and an estimated 1 FTE will be devoted to this project in FY88-89. The project goal is to determine how the performance of shrimp harvesting gear changes when TEDs are installed and how these changes influence overall harvesting efficiency and performance of trawl doors, lead lines, tickler chains, and head lines. In addition, the effects of adding or removing webbing in the extension associated with the installation of TEDs on the harvesting efficiency of gear will be determined.

3. Introduction of the TED to the South Atlantic Shrimp Fisheries (S-K) - $135K and an estimated 1 FTE (one part time person from each South Atlantic Sea Grant State) will be devoted to this project in FY88. This is a parallel project to the MARFIN project in the Gulf. Project goals are the same.

4. Gear Performance on Shrimp Trawls Fitted with TED and Selectivity Devices (S-K Georgia Sea Grant) - $101K and 1 FTE will be devoted to this project in FY88. This project parallels the MARFIN project in the Gulf. Project goals are the same.

Project Descriptions-Shrimp Industry

(As defined in the FY88-89 Gulf and South Atlantic Fisheries Development Foundation MARFIN and S-K Proposals)

1. Trawl Design/Excluder Device Improvements (MARFIN) - $244.7K and 1 FTE (3 part time industry representatives) will be devoted to this project in FY88-89. The project goal is to solicit members of the shrimp industry, primarily those affiliated with the various shrimp associations, to submit designs for trawl adaptions that would, in their opinion, eliminate the retention of non-target species. Review panels composed of industry, NMFS and Sea Grant gear specialists and others would evaluate the designs for documentation of their success potential. Innovators whose designs are chosen would be provided funds to offset testing costs. This is a parallel project to the S-K project in the South Atlantic.

2. Trawl Design/Excluder Device Improvements (S-K) - $90K and 1 FTE will be devoted to this project in FY88. This project parallels the MARFIN project in the Gulf. Project goals are the same.

Project Descriptions-States

(MARFIN and Entanglement)

1. Estimation of Total Mortality from Systematic Sampling for Stranded Turtles (FDNR) - $40K and an estimated 1 FTE will be devoted to this project in FY88. The project goal is to improve the reliability of stranding and salvage reporting in NMFS statistical zones 4 and 5 by increasing the geographical area of coverage and insuring that beaches are patrolled during the winter months. In addition, necropsies will be performed on selected animals to determine probable cause of death and sex.

2. A Survey of Sea Turtles in Louisiana Waters (LW&F) - $30K and an estimated 1 FTE will be devoted to this project in FY88. Project objectives are to; 1) determine the stranding rate of sea turtles along the Louisiana coast west of the Mississippi River (NMFS Statistical Zones 13-16); 2) determine temporal and spatial distribution of sea turtles in Breton/Chandeleur Sounds, Barataria Bay, Terrebonne/Timbalier Bays, and Caillou Lake; 3) analyze sea turtle observation data in Louisiana from Menhaden aerial surveys.

3. An Economic Assessment of the Louisiana Inshore Shrimp Fishery - LSU - $67K ($50K MARFIN and $17K State) and 1 FTE will be devoted to this two year project. Project goals

are: 1) to determine the level and recent change in the level of capitalization in the Louisiana inshore fishery; 2) to determine the level of dependence on the inshore shrimp resource by full and part-time commercial fishermen because of the recent change in dependence on the fishery resulting from fewer job opportunities in non-fishing related industries, and net income derived from the fishery. Pursuant to this objective, an evaluation of the economic and socioeconomic ramifications resulting under alternative management options will be conducted; 3) to determine which economic production factors affect the catch of shrimp by individual firms in the Louisiana inshore zone, and 4) to quantify the relationship between factors of production and catch. Emphasis will given to evaluating the effects of different gear types on catch.

Note - While the whole of this project cannot be considered as directly relating to the TED/Turtle issue, certain components of the project will provide information on the extent of reduced tow time use and its effect on shrimp catch in the Louisiana inshore shrimp fishery. The principal investigator has agreed, to the extent possible, to collect information on turtle captures and the effect of shrimp catch of 90 minute tow times in his interviews.

(Entanglement)

4. Effect of Marine Pollution on Juvenile, Pelagic Sea Turtles - (Entanglement) Approximately .5 FTE and $35K over a two year period are devoted to this project at the University of Florida's Sea Turtle Center. The project goal is to investigate the effect of ocean pollutants on the survival outlook of sea turtles. The presence of sea turtles in driftline habitats will be identified.

NMFS SER FY88 CONSOLIDATED ENDANGERED SPECIES PROGRAM FUNDING
($K)

	NMFS FTE/Resouces	MARFIN	Entanglement	Other	Total
Southeast Regional Office					
Program Management	2/68	10(A)			78
Southeast Fisheries Center	20 [redacted]/818				
TED Tech Transfer & Certif.	3/144(B)	100			244
Economic Evaluation of TEDs and Turtle	6 [redacted]/252	20			[redacted] 272
Evaluation of ~~low times~~ Turtle mortality	~~5/62~~	[redacted]			[redacted]
(Support from LA inshore study)					
Strandings	2/60	60			120
Other Sources of Mortality	[redacted]	1/30		125 (MMS)	~~185~~ 175
b. Impact of Ingested Debris on Sea Turtles			0/50		50
c. Debris, Entanglement, Strandings and Causes of Dealth in Sea Turtles			1/50		50
Distribution & Abundance	2/114				114
Tagging Program	0/10				10
Headstart	3 [redacted]/77	75			~~122~~ 152
Data Analysis	4/131				131
WATS II	0/30				30
Program Management					
Gulf & South Atlantic Fisheries Development Foundation (Includes Sea Grant and Shrimp Industry)		535		326 (S-K)	861
Florida Dept. of Natural Resources		40			40
Louisiana Dept. of Wildlife & Fisheries		30			30
University of Florida			35		35
Lousiana State University		67			67
Total Regional Funding for Sea Turtles	20 [redacted]/886	**967**	**135**	**451**	**2,439**

Notes: (A) FY87 MARFIN Funds carried over to FY88
(B) Includes $40K add on from Washington - carry-over from 1987

NMFS SER FY88 CONSOLIDATED ENDANGERED SPECIES PROGRAM FUNDING
($K)

	NMFS FTE/Resouces	MARFIN	Entanglement	Other	Total
Southeast Regional Office					
Program Management	2/68	10[A]			78
Southeast Fisheries Center	21/818				
TED Tech Transfer & Certif.	3/144[B]	100			244
Economic Evaluation of TEDs and Tow Times (Support from LA Inshore study)	6/252	20			272
Evaluation of Turtle Mortality Strandings	2/60	60			120
Other Sources of Mortality		1/30		125 (MMS)	155
b. Impact of Ingested Debris on Sea Turtles			0/50		50
c. Debris, Entanglement, Strandings and Causes of Dealth in Sea Turtles			1/50		50
Distribution & Abundance	2/114				114
Tagging Program	0/10				10
Headstart	3/77	75			152
Data Analysis	4/131				131
WATS II	0/30				30
Program Management	1/0				
Gulf & South Atlantic Fisheries Development Foundation (Includes Sea Grant and Shrimp Industry)		535		326 (S-K)	861
Florida Dept. of Natural Resources		40			40
Louisiana Dept. of Wildlife & Fisheries		30			30
University of Florida			35		35
Lousiana State University		67			67
Total Regional Funding for Sea Turtles	**23/886**	**1/967**	**135**	**451**	**2,439**

Notes: (A) FY87 MARFIN Funds carried over to FY88
(B) Includes $40K add on from Washington - carry-over from 1987

House - FY87 supp Approp ↓

The Committee has included language in the bill prohibiting the promulgation or implementation of the Department of Commerce's March 2, 1987 proposed rulemaking on Sea Turtle Conservation; Shrimp Trawl Requirements for waters described in the proposed rulemaking as western Gulf of Mexico offshore, western Gulf of Mexico inshore, and Louisiana inshore, zones 10 through 21. It is the Committee's intention that this prohibition on implementation apply for one calendar year starting from July 15, 1987.

The Committee feels that the protection of endangered turtle species is very important. However, the Committee is concerned that currently proposed regulations requiring shrimp fishermen in the western Gulf of Mexico to use turtle excluder devices (TEDs) may be premature. These regulations have not been developed with adequate scientific data and studies, nor has the economic impact of these regulations on small shrimp operators been adequately addressed. This is especially true regarding near shore or inland water shrimpers.

Therefore, the Committee directs the Department of Commerce not to promulgate or implement a final rule for TEDs now scheduled to take effect beginning July 15, 1987 in the western Gulf of Mexico. It is the Committee's intention that no funds in fiscal year 1987 or any previous year be obligated or expended by the Department for these purposes. A one year delay in the implementation of these regulations will ease concerns expressed by thousands of fishermen and provide additional time to adequately test TED designs in the western Gulf of Mexico.

The Committee directs the Department to include in its studies of these regulations new data on the full economic impact of TEDs on shrimpers, especially small shrimp fishermen, the effects of TEDs on the amount of shrimpers' catch that is lost through TED use, and the impact of TEDs on near shore and inshore waters along coastal marsh areas, oyster reefs, and the turtle mortality rate in these waters. The Department shall report these findings to the Appropriations Committee as well as the Department's efforts to date on alternative methods of protecting endangered turtle species such as hatching programs and negotiations with foreign countries on protecting these species.

TED Regs →

Evaluation Program

NOAA will conduct a detailed evaluation to be completed within two years of January 1, 1988, of the effectiveness of the regulation contained in this rule. This study will include an (1) evaluation as to whether the qualified TEDs are effectively excluding turtles, (2) whether there are alternative performance/design standards for qualifying TEDs that would be acceptable and what their cost would be, and (3) whether the testing and qualifying procedures for TEDs are the most efficient possible.

Senate FY 87 Supp Approp ↓

The Committee recommends language inserted in the bill by the House prohibiting the promulgation or implementation of the Department of Commerce's March 2, 1987, proposed rulemaking on Sea Turtle Conservation; Shrimp Trawl Requirement for waters described in the proposed rulemaking as western Gulf of Mexico offshore, western Gulf of Mexico inshore, and Louisiana inshore, zones 10 through 21.

The Committee feels that the protection of endangered turtle species is very important. However, the Committee is concerned that currently proposed regulations requiring shrimp fishermen in the western Gulf of Mexico to use turtle excluder devices [TED's] may be premature. These regulations have not been developed with adequate scientific data and studies, nor has the economic impact of these regulations on small shrimp operators been adequately addressed. This is especially true regarding near shore or inland water shrimpers.

Therefore, the Committee directs the Department of Commerce not to promulgate or implement a final rule for TED's now scheduled to take effect beginning July 15, 1987, in the western Gulf of Mexico. It is the Committee's intention that no funds in fiscal year 1987 or any previous year be obligated or expended by the Department for these purposes. A 3-month delay in the implementation of these regulations will ease concerns expressed by thousands of fishermen and provide additional time to adequately test TED designs in the western Gulf of Mexico.

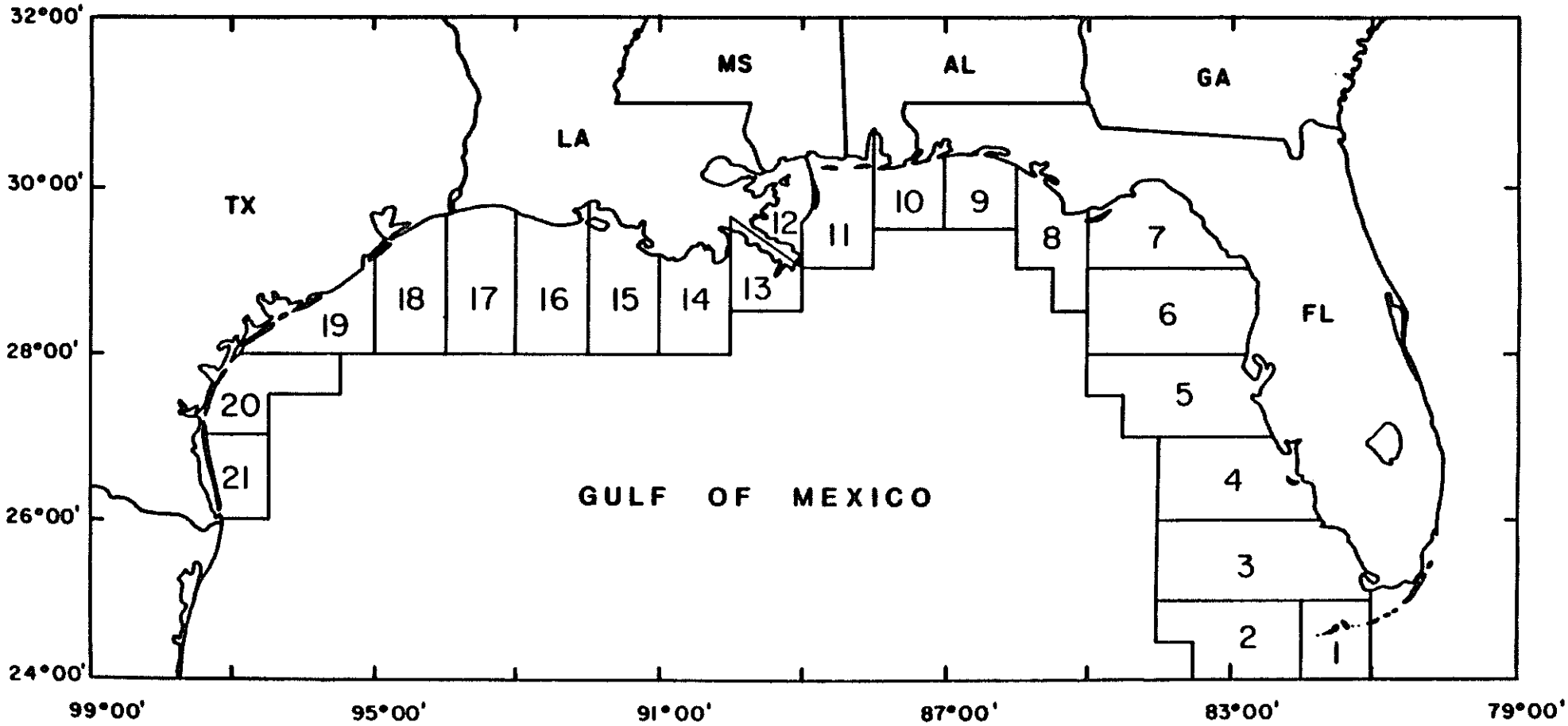
House Approp Cte Report for FY88 ↓

The Committee has not continued its prohibition on implementing the Department's final regulation originally issued March 2, 1987 on Sea Turtle Conservation: Shrimp Trawl Requirements. This issue is addressed in the Fiscal Year 1987 Supplemental Appropriations Bill.

The Committee is concerned that these regulations be developed with complete scientific data and studies. Therefore, the Committee directs the Department to continue its present studies of turtle excluder devices (TEDs) and include in its studies new data and statistical evaluations on the full economic impact of TEDs on the amount of shrimpers' catch that is lost through TED use, and the impact of TEDs on near shore and inshore waters along coastal marsh areas, oyster reefs, and the turtle mortality rate in these waters. The Department shall work with and solicit proposals from concerned public and private individuals and organizations on testing protocols to develop this new data. The Committee will consider additional funding requirements that may be necessary to gather this new data or conduct testing protocols.

The Department shall report its progress with these studies and their findings to the Appropriations Committee every 60 days as well as the Department's efforts on all other alternative methods of protecting endangered turtle species such as hatching programs and negotiations with foreign countries on protecting these species.

Appendix B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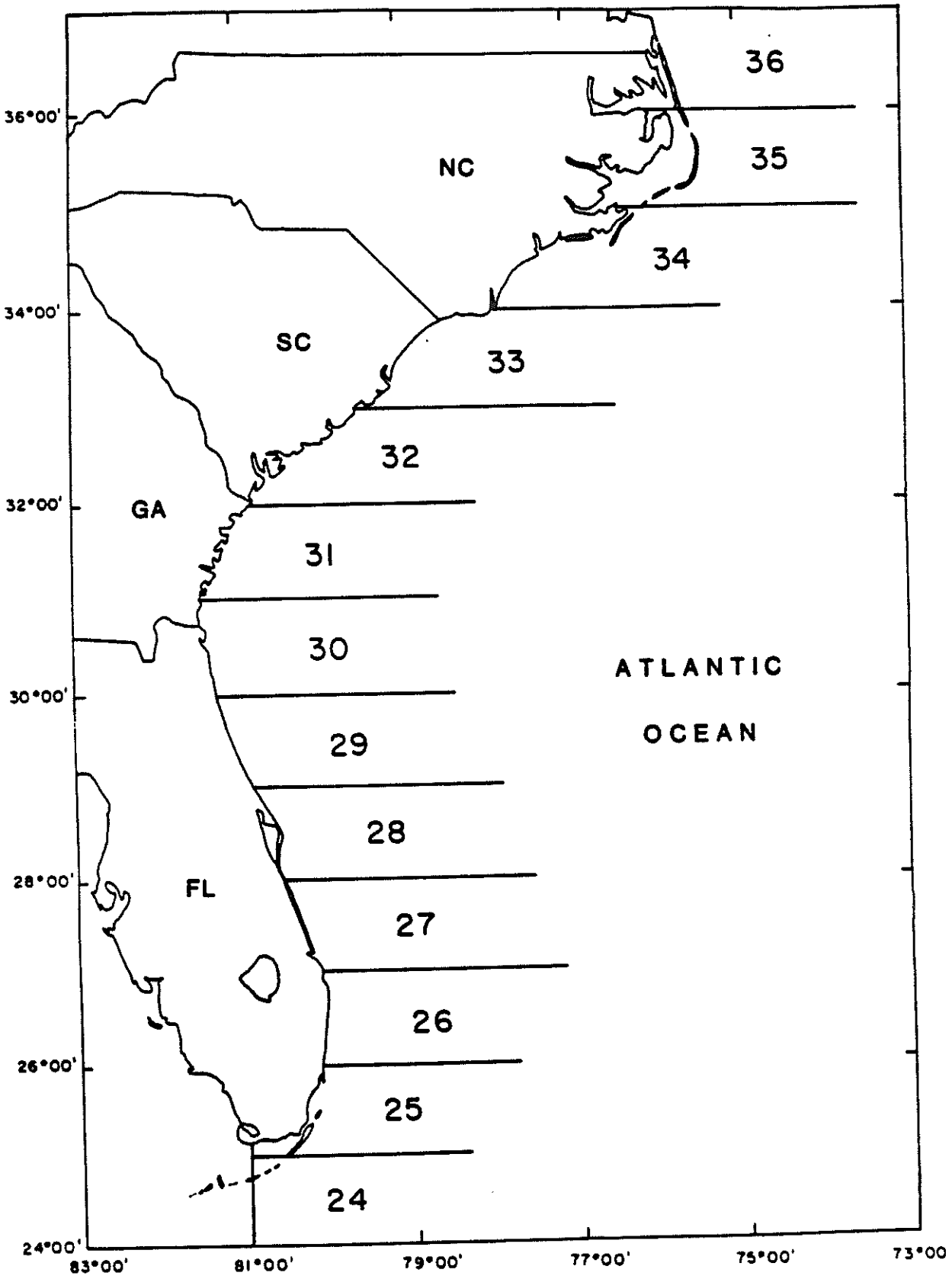
Appendix C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