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**FRAMEWORK SEASONAL ADJUSTMENT
OF HARVEST LEVELS AND PROCEDURES
UNDER THE
FISHERY MANAGEMENT PLAN
FOR COASTAL MIGRATORY PELAGICS
IN THE
GULF OF MEXICO
INCLUDES ENVIRONMENTAL ASSESSMENT
AND
REGULATORY IMPACT REVIEW**

MAY 1995

**GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
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I. HISTORY OF MANAGEMENT

The "Mackerel" FMP, approved in 1982 and implemented by regulations effective in February of 1983, treated king and Spanish mackerel each as one U.S. stock. Allocations were established for recreational and commercial fisheries, and the commercial allocation was divided between net and hook-and-line fishermen.

Amendment 1, implemented in September of 1985, provided a framework procedure for pre-season adjustment of total allowable catch (TAC), revised king mackerel maximum sustainable yield (MSY) downward, recognized separate Atlantic and Gulf migratory groups of king mackerel, and established fishing permits and bag limits for king mackerel. Commercial allocations among gear users were eliminated. The Gulf commercial allocation for king mackerel was divided into eastern and western zones for the purpose of regional allocation.

Amendment 2, implemented in July of 1987, revised Spanish mackerel MSY downward, recognized two migratory groups, and set commercial quotas and bag limits. Charter boat permits were required, and it was clarified that TAC must be set below the upper range of acceptable biological catch (ABC). The use of purse seines on overfished stocks was prohibited.

Amendment 3 was partially approved in 1989, revised, resubmitted, and approved in 1990. It prohibited drift gill nets for coastal pelagics and purse seines for the overfished groups of mackerels.

Amendment 4, implemented in 1989, reallocated Spanish mackerel equally between recreational and commercial fishermen on the Atlantic group.

Amendment 5, implemented in August 1990, made a number of changes in the management regime which:

- o Extended management area for Atlantic groups of mackerels through the Mid-Atlantic Council's area of jurisdiction;
- o Revised problems in the fishery and plan objectives;
- o Revised the fishing year for Gulf Spanish mackerel from July-June to April-March;
- o Revised the definition of "overfishing";
- o Added cobia to the annual stock assessment procedure;
- o Provided that the South Atlantic Council will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the Gulf Council will be responsible for Gulf migratory groups;
- o Continued to manage the two recognized Gulf migratory groups of king mackerel as one until management measures appropriate to the eastern and western groups can be determined;
- o Redefined recreational bag limits as daily limits;
- o Deleted provision specifying that bag limit catch of mackerel may be sold;
- o Provided guidelines for corporate commercial vessel permits;
- o Specified that Gulf king mackerel may be taken only by hook-and-line and run-around gill nets;

- o Imposed a bag limit of two cobia per person per day;
- o Established a minimum size of 12-inch (30.5 cm.) fork length or 14-inch (35.6 cm.) total length for king mackerel and included a definition of "conflict" to provide guidance to the Secretary.

Amendment 6, implemented in November of 1992, made the following changes:

- o Identified additional problems and an objective in the fishery;
- o Provided for rebuilding overfished stocks of mackerels within specific periods;
- o Provided for biennial assessments and adjustments;
- o Provided for more seasonal adjustment actions;
- o Allowed Gulf king mackerel stock identification and allocation when appropriate;
- o Provided for commercial Atlantic Spanish mackerel possession limits;
- o Changed commercial permit requirements to allow qualification in one of three preceding years;
- o Discontinued the reversion of the bag limit to zero when the recreational quota is filled;
- o Modified the recreational fishing year to the calendar; and
- o Changed minimum size limit for king mackerel to 20 inches fork length, and changed all size limit measures to fork length only.

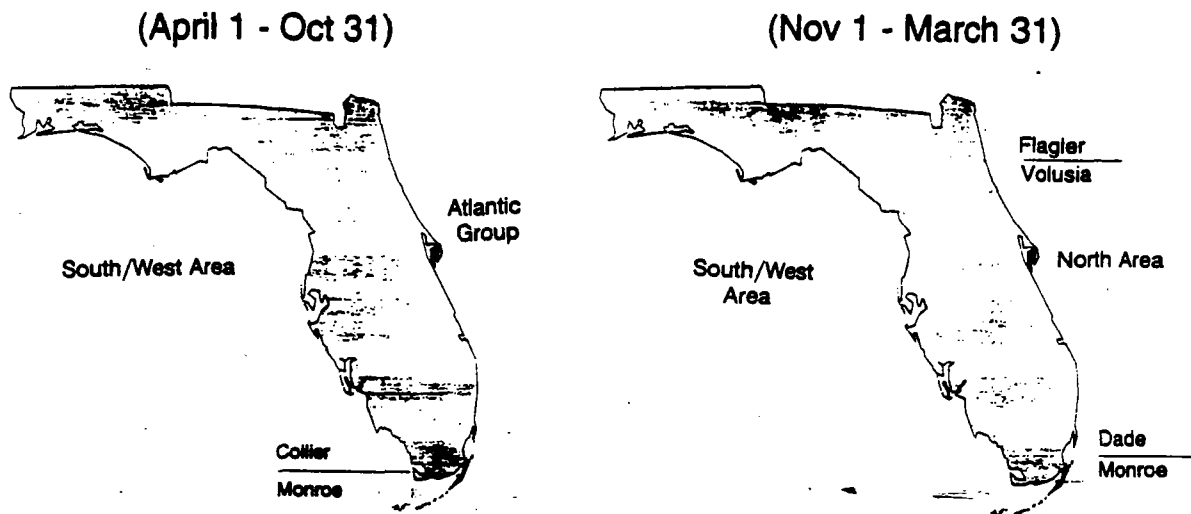
The present management regime for king mackerel recognizes two migratory groups, the Gulf Migratory Group and the Atlantic Migratory Group. These groups are hypothesized to mix on the east coast of Florida. For management and assessment purposes, a boundary between groups was specified which was the Volusia-Flagler County border on the Florida east coast in the winter (November 1-March 31) and the Monroe-Collier County border on the Florida southwest coast in the summer (April 1-October 31). The Gulf Migratory Group may be divided at the Florida-Alabama border when the stock assessment panel is able to provide separate acceptable biological catches for each group. The commercial allocation for the Gulf group is currently divided at this boundary.

For the purpose of allocating a limited resource among users, the FMP has set ratios based on historic unregulated catches. The Gulf migratory group is allocated with 68 percent for recreational fishermen and 32 percent for commercial fishermen. The commercial allocation is further subdivided 69 percent for the Eastern Zone and 31 percent for the Western Zone.

Amendment 7 equally divided the Gulf commercial allocation in the Eastern Zone at the Dade-Monroe County line in Florida. The suballocation for the area from Monroe County through Western Florida is equally divided between commercial hook-and-line and net gear users.

The mechanism for seasonal framework adjustments is described in Appendix 1.

EASTERN ZONE GULF GROUP KING MACKEREL SEASONAL BOUNDARIES



Management Objectives

The current FMP as amended lists eight plan objectives:

1. The primary objective of this FMP is to stabilize yield at MSY, allow recovery of overfished populations, and maintain population levels sufficient to ensure adequate recruitment.
2. To provide a flexible management system for the resource which minimizes regulatory delay while retaining substantial Council and public input in management decisions and which can rapidly adapt to changes in resource abundance, new scientific information, and changes in fishing patterns among user groups or by areas.
3. To provide necessary information for effective management and establish a mandatory reporting system for monitoring catch.
4. To minimize gear and user group conflicts.
5. To distribute the total allowable catch of Atlantic migratory group Spanish mackerel between recreational and commercial user groups based on the catches that occurred during the early to mid 1970's, which is prior to the development of the deep water run-around gill-net fishery and when the resource was not overfished.
6. To minimize waste and bycatch in the fishery.
7. To provide appropriate management to address specific migratory groups of king mackerel.
8. To optimize the social and economic benefits of the coastal migratory pelagic fisheries.

II. PURPOSE AND NEED FOR ACTION

A federal court ruling in 1992 had the effect of vacating Florida's king mackerel trip limit rule for commercial vessels. In order to restore a measure of equitable distribution of catch of Gulf migratory group king mackerel among Florida fishermen in different geographic areas and with different gear, the Council initiated Amendment 7 (see Part 1, History of Management). Commercial vessel trip limits were subsequently established to restrain catches by various groups within their allocation and allow an orderly operation of the fishery.

In the Eastern Zone of the Gulf migratory group of king mackerel (Florida) fishermen in the Northern Area on the East Coast (Dade through Volusia Counties) vessel trip limits were in effect in the 1993-1994 and in the 1994-1995 season at the request of the fishermen. In neither season, however, were they able to take their full suballocation. The proposed Action 1 would retain the higher trip limit longer into the season if catches are low. Currently, they are reduced when 75 percent of the quota is taken.

The distribution of catch of king mackerel in the South/West Area of the Eastern Zone (Monroe County to Florida's western boundary) was skewed in the 1994-95 season, possibly due to a mild winter. Almost the entire suballocation for hook-and-line fishermen was taken in the Panhandle by mid-December before the migratory fish reached south Florida. A supplemental allocation of 300,000 pounds was provided by emergency rule to give economic relief to south Florida fishermen under a temporary trip limit scenario to distribute the catch. As an interim measure while it develops a license moratorium or limited access program for long range management, the Council proposes to restrain the hook-and-line catch by means of vessel trip limits.

III. AFFECTED ENVIRONMENT

1. Description of the Fishery

King mackerel and Spanish mackerel are major target species of an important commercial fishery in South Florida as well as a major target species for the private boat and charter boat recreational fishery along widespread areas within the Gulf and South Atlantic regions. King mackerel are particularly important to the charter boat and offshore private boat fleets. In addition, smaller amounts of king mackerel are caught as a commercial supplement by the North Carolina charter boat fleet.

Most of the commercial fishery for king mackerel is located in Florida, and most are taken there from November through March. A winter troll fishery takes place along the east and south coast, and a run around gill net fishery occurs in the Florida Keys (Monroe County) during January. A net fishery on the east coast of Florida, which occurred later (March), has been eliminated since 1985 due to the filling of the commercial quota before fish became seasonally available there. Florida attempted to allocate king mackerel catches among fishermen in different geographic areas by subquotas and landing limits. The Florida trip limit regulations were vacated in December 1992, by a federal court ruling, and the commercial quota was quickly taken in the Keys with 900,000 pounds landed there in a 10-day period in January, 1993.

A hook-and-line fishery for king mackerel was developed commercially off Louisiana in the winter of 1982-1983. A trolled handline fishery is similar to the Florida hook-and-line fleet and is centered in the Grand Isle area.

Recreational users have increased in numbers over time. Many come from outside the management area as well as areas within it. Increased income and leisure time have increased participation. This participation has, in turn, generated significant amounts of economic value and also employment.

The habitat of king mackerel is described and updated in Amendments 1 and 3. No new information is available.

2. Status of Stocks

The FMP provides that a migratory group of king or Spanish mackerel is defined as overfished when its spawning potential ratio (SPR) is below 30 percent. Gulf migratory king and Spanish mackerel have SPRs between 20 and 30 percent. In 1994 the Council convened a SPR Management Strategy Committee to review the various definitions of overfishing for fishes in the different fishery management plans. The committee recommended an overfishing threshold definition of 20 percent SPR for king and Spanish mackerels. This recommendation was subsequently endorsed by the Mackerel Stock Assessment Panel and the Scientific and Statistical Committee.

The Council has requested that this change be implemented by emergency rule so that it is no longer bound by a schedule to restore the overfished stocks to a 30 percent SPR level in a prescribed period.

IV. PROPOSED ACTIONS INCLUDING ALTERNATIVES

Action 1. Trip Limits for North Area, Eastern Zone King Mackerel

Preferred Alternative 1.A: In the Northern Area (Dade through Volusia Counties) of the Eastern Zone Gulf king mackerel daily commercial trip and possession limits of up to 50 fish per vessel are to be allowed until 75 percent of the suballocation for that area is filled, then 25 fish per daily trip until the suballocation is filled. If the 75 percent of quota is not taken by March 1, the 50 fish limit remains until the subquota is filled or the season ends on March 31.

Rationale: Fishermen have not filled their suballocation for the last two seasons. Allowing the higher trip limit of 50 fish during the final month of the season extends the opportunity for higher level of access. The purpose of the trip limits is to extend the suballocation through the fishing season while retaining the catch within the suballocation. This alternative was recommended by the Concerned Fishermen of Florida and endorsed by the Council's Advisory Panel.

Rejected Alternative 1.B: Status Quo - In the Northern Area (Dade through Volusia Counties) of the Eastern Zone Gulf group king mackerel daily commercial trip and possession limits of up to 50 fish per vessel are allowed until 75 percent of the

suballocation of 865 thousand pounds is filled, then 25 fish per daily trip until the allocation is filled.

Rationale: This alternative was an improvement on the more restrictive 1993-1994 trip limit which reverted from 50 to 25 fish when only 50 percent of the suballocation was taken. It allows an increase in the percentage of the suballocation that fishermen were able to harvest. However, in the 1994-1995 season they harvested only 82 percent of their suballocation.

Action 2. Trip Limits for South/West Area Hook-and-Line Fishermen.

Preferred Alternative 2.A: In the South/West Area (Monroe County to Florida's western boundary) of the East Zone Gulf group king mackerel commercial hook-and-line vessel daily trip and possession limits are 125 fish until 75 percent of the suballocation is filled, then 50 fish until the suballocation is filled.

Rationale: This alternative for establishing vessel trip limits for the hook-and-line fishery is an interim short-term measure to retain and distribute the catch within the suballocation while the Council develops a long term solution of limited access to the fishery. In 1994 the suballocation for the South/West hook-and-line fishery was filled by mid-December in the Florida Panhandle before the migratory fish reached South Florida. The Council requested and NMFS approved a 300,000-pound supplemental allocation by emergency rule for South Florida hook-and-line fishermen. Vessel trip limits were included in the emergency rule. This proposed action would help prevent a recurrence of the 1994-1995 seasonal problems.

It is important that the State of Florida set compatible trip limits in state waters in order for the program to be enforceable.

The Council considered using pounds as the measure in trip limits but was convinced by fishermen and enforcement officers that the head count would be much easier to monitor.

Rejected Alternative 2.B: Status Quo - No trip limits for South/West area hook-and-line fishermen.

Rationale: This was the preferred alternative for fishermen for the 1994-1995 season; because some make multiday trips resulting in larger catches. The unusual catch patterns in that season resulted in emergency action to allocate additional fish.

Rejected Alternative 2.C: Further suballocate the hook-and-line allocation on Florida's west coast by plan amendment.

Rationale: This alternative was rejected as being a permanent and further Balkanizing of the fishery. Gulf group king mackerel are already divided into recreational and commercial area and gear group suballocations. The Council is proposing flexible short term measures while it develops a long range program of controlled access.

V. REGULATORY IMPACT REVIEW

Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: 1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action, 2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem, and 3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order 12866 and whether the proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act of 1980 (RFA).

This RIR analyzes the probable impacts of the proposed changes in the commercial trip limits for the king mackerel fishery in the Eastern Zone of the Gulf group of king mackerel.

There are no proposed changes in TAC and recreational bag limits for the Gulf groups of king and Spanish mackerels, in commercial trip limits for the Gulf group of Spanish mackerel, and in TACs, commercial trip limits, or recreational bag limits for the other species in the Fishery Plan for Coastal Migratory Pelagics (FMP).

Problems and Objectives

The general problems and objectives are enumerated in the FMP, as amended. The purpose and need for the present regulatory amendment are found in Section II of this document. Essentially the current regulatory amendment addresses the following issues:

1. Change in the commercial trip limit for the Gulf group of king mackerel in the North Area, Eastern Zone;
2. Change in the commercial trip limit for hook-and-line vessels of the Gulf group of king mackerel in the South/West Area, Eastern Zone.

Methodology and Framework for Analysis

Ideally, the expected present values of net yield streams over time associated with the different alternatives would be compared in evaluating impacts. Net yield streams in the present context mean producer and consumer surpluses in the commercial sectors of the Gulf group of king mackerel in the Eastern Zone. Unfortunately, estimates of the yield streams and their associated probabilities are not available. The approach taken in analyzing alternative trip limits is to describe and/or quantify the changes in short-term net benefits. A qualitative discussion of long-term impacts is also attempted.

Impacts of Proposed Actions and Alternatives

Action 1. Trip Limits for North Area, Eastern Zone King Mackerel

Preferred Alternative 1.A: In the Northern Area (Dade through Volusia Counties) of the Eastern Zone Gulf king mackerel daily commercial trip and possession limits of up to 50 fish per vessel are to be allowed until 75 percent of the suballocation for that area is filled, then 25 fish per daily trip until the suballocation is filled. If the 75 percent of quota is not taken by March 1, the 50 fish limit remains until the subquota is filled or the season ends on March 31.

Rejected Alternative 1.B: Status Quo - In the Northern Area (Dade through Volusia Counties) of the Eastern Zone Gulf group king mackerel daily commercial trip and possession limits of up to 50 fish per vessel are allowed until 75 percent of the suballocation of 865 thousand pounds is filled, then 25 fish per daily trip until the allocation is filled.

The fishing season for Gulf king mackerel extends the period July 1 through June 30, but the fishery in the Northern Area starts on November 1 and ends on March 31. A TAC of 7.8 million pounds (MP) has been maintained for the fishery. The established 68/32 allocation ratio between recreational and commercial fishermen translates to a 2.5 MP overall quota for the commercial sector. Out of this commercial quota, 1.73 MP is allocated to the Eastern Zone and the rest to the Western Zone. Half of the Eastern Zone quota is allocated to the Northern Area, and the other half to the South/West Area.

Since the onset of restrictive regulations on the Gulf king mackerel fishery until the 1992/1993 season, the commercial fishing season for Gulf king mackerel in the Eastern Zone had never remained open beyond January. With fishery closures occurring around January, net vessels (12 vessels by current account) that used to fish Gulf king mackerel in the Northern Area had been practically excluded from the fishery, since the effective fishing season for these vessels starts around late February. The 1992/1993 season was extended when the fishery was re-opened from February 18 through March 26, 1993 via emergency action. Because of the low trip limit, only hook-and-line vessels could participate in the fishery during this extended season. The 50/50 allocation of the Eastern Zone sub-quota begun in the 1993/1994 season could have re-opened the net fishery, but the trip limits adopted have been too restrictive for net vessels to operate profitably. This left only the hook-and-line fishery with an estimated 150 full-time fishing crafts.

The trip limit under Rejected Alternative 1.B has been in effect for the last two years. In these two years, the Northern Area commercial quota has not been reached. Harvest amounted to about 0.6 MP in the 1993/94 season and about 0.7 MP in the 1994/95 season (Godcharles, 1995; see Appendix 3). Trip limits dropped from 50 to 25 fish on February 7, 1994, or more than a month before the normal end of the season. In 1995 trip limits were not reduced.

The current trip limit system could have partially accounted for harvest to be below the quota. The Preferred Alternative could then potentially allow fishermen to harvest the entire quota for the North Area. With king mackerel demand being elastic (Easley et al.,

1993) an increase in harvest translates to gross revenue increases for these trollers in the short run. While catch rates may increase, the trip limits may still be relatively restrictive as to leave the fishery open until the normal end of the season on March 31. A steady supply of king mackerel over the entire season can take advantage of a relatively higher seasonal demand shifter in February and March (see Easley et al., 1993 for the relative magnitude of monthly demand shifters).¹ While more revenues do not necessarily mean higher net vessel profits, in the particular case of the Northern Area king mackerel fishery a higher net profit may be expected since vessels are rendered more efficient with higher trip limits throughout most of the season. Of course, the difference in the impacts of the Preferred Alternative and status quo depends on when the conditions stipulated in the two alternatives occur. There is a possibility that the reduction in trip limits under the two alternatives may coincide in time so that their effects would be the same. It appears more likely, however, that harvests would be higher under the Preferred Alternative.

With potentially higher landings under the Preferred Alternative, consumer surplus may also increase as more fish become available in the market over a longer period at a relatively lower price. Dealer profits may also be positively affected by the increase in harvest.

The long-run effects of higher trip limits depend on additional regulatory measures that may be adopted in the future. The proposed change in trip limits may appear to be restrictive enough for new vessels to enter the fishery. But if the expected increase in vessel profitability due to the proposed change in trip limits persists over a longer period, new vessels may enter the fishery under an open access management system. While these new vessels may still be constrained by the trip limits, their presence in the fishery would mean that eventually the 75 percent benchmark for lowering the trip limits may be reached sooner. It may also be noted the current trip limit may be only one of the factors that constrained landings below the quota. It may be recalled that in the 1993 extended season, the trip limit was 25 fish per vessel per trip. During this time the fishery harvested about 0.259 MP between February 18 and March 26. This experience partly indicates that existing capacity can potentially harvest a good amount of fish over a short period given a certain level of fish stock abundance and of prices in the market for mackerel. In the eventuality then that harvest substantially increase, prices would be depressed and vessel profitability would tend to fall. In a sense then a derby-like fishery may occur. Lower trip limits that may be imposed to prevent a derby may only render the vessels inefficient, with adverse consequences on industry profitability. Thus, the long-run status of the fishery may not necessarily be beneficial as a result of the change in trip limits unless some form of effort limitation, possibly in terms of limiting entry of new vessels, is adopted.

Because of various potential changes to trip limits, the Preferred Alternative may entail a relatively higher cost of management from the standpoint of enforcement and monitoring of catches. To the extent, however, that catches are now adequately monitored, such increase in cost may not be deemed substantial.

¹ It may be pointed out that this particular study was not intended to rigorously examine monthly demand for king mackerel, but it does provide monthly demand shifters that may be roughly considered as indicative of the relative strength of demand on a month to month basis.

Action 2. Trip Limits for South/West Area Hook-and-Line Fishermen.

Preferred Alternative 2.A: In the South/West Area (Monroe County to Florida's western boundary) of the East Zone Gulf group king mackerel commercial hook-and-line vessel daily trip and possession limits are 125 fish until 75 percent of the suballocation is filled, then 50 fish until the suballocation is filled.

Rejected Alternative 2.B: Status Quo - No trip limits for South/West area hook-and-line fishermen.

Rejected Alternative 2.C: Further suballocate the hook-and-line allocation on Florida's west coast by plan amendment.

The start of fishing season for Gulf king mackerel in the South/West Area coincides with the start of fishing season for the Gulf group of king mackerel, i.e., July 1. From July 1 through October 31, the South/West Area spans the area south of the Florida/Alabama state line up through the Collier/Monroe, Florida county line. From November 1 through March 31, the South/West area also includes Monroe county.

The South/West Area's commercial allocation of 0.865 MP is divided equally between net and hook-and-line fishermen. There are 12 to 20 net vessels and 75 to 100 troll vessels that target king mackerel in the Keys during the peak season starting late December. Most king mackerel fishermen in the Florida Keys also target other species such as stone crabs, spiny lobster, and reef fish. In addition, there are a number of hook-and-line vessels in northern Florida that participate in the king mackerel fishery. Net vessels are subject to trip limits while hook-and-line vessels are not.

Since the beginning of restrictive rules on Gulf group king mackerel, only a limited fishery (mostly occurring in the Florida Panhandle) had existed before November 1. For the period 1985/1986 - 1993/1994, the average landings of this limited fishery amounted to about 62,000 pounds. The usual peak of the South/West fishery occurs around late November through early January when hook-and-line and net vessels in the Keys operate in full force.

Last year was a different fishing season for the South/West Area. It was the first year that the quota was equally split between hook-and-line and net fishermen. More importantly, it was the first time that the mentioned limited fishery in northern Florida harvested substantially more than the historical harvest of that area. The hook-and-line fishery was closed in mid-December before hook-and-line fishermen in the Keys could fully operate. The fishery was then re-opened in the first week of February under a 0.3 MP supplemental quota. This extended season lasted about three weeks, and hook-and-line fishermen harvested about 0.35 MP. The net fishery closed at the time the hook-and-line fishery was re-opened.

The trip limits under the Preferred Alternative may probably allow hook-and-line fishermen in northern Florida and the Keys to operate during the open season for Gulf king mackerel. From an industry standpoint, this measure would mainly involve distributional effects, especially that TAC is maintained at last year's level. Northern Florida fishermen may experience reduction in harvest and those in the Keys an increase in harvest. But although this measure has mainly distributional effects, there are several issues worth pointing out.

First, the trip limits under the Preferred Alternative may effect some conservation measures to the extent that this segment of the mackerel fishery is constrained to harvest levels within its allocation. Any supplemental quota may no longer be necessary for the survival of the many fishermen involved in the fishery. Second, trip limits favor smaller vessels so that larger vessels may be rendered inefficient. This may adversely affect the efficiency level of the entire industry. Third, there is some possibility that the profitability of the industry may suffer from the proposed trip limits. It may be recalled that the hook-and-line fishery in northern Florida starts earlier than the fishery in the Keys and in the Northern Area. This means that harvest in northern Florida may not meet stiff competition in the market with harvest in other areas. The same cannot be said of harvest by hook-and-line fishermen in the Keys. These fishermen compete in the market with net fishermen in the Keys and hook-and-line fishermen in the North Area. There is a good chance then that the hook-and-line fishery in the South/West Area may experience a reduction in revenue under the proposed trip limits. If operating costs for hook-and-line vessels in northern Florida and the Keys are about the same, profitability of the industry may decrease under the scenario that overall revenues fall.

The long-run effects of the proposed trip limits may be beneficial to the extent that the stock is partly protected by constraining the fishery to its allocation. The long-term economic viability of the various fishing entities would greatly depend on the type of management system adopted for the fishery. If the trip limits render one segment of the fishery economically viable, such condition is likely to invite more entrants into that segment of the fishery. Under such scenario, profitability in that segment of the fishery would tend to decline over time.

Currently, monitoring procedure is already established to track the two subquotas in the South/West Area. The proposed trip limits for hook-and-line, however, would require additional enforcement cost although such cost may not be substantial.

Government Costs of Regulation

Federal government costs of this action were associated with meetings, travel, calculation of ABCs, preparation of various documents and reviewing all documents. Other sources of additional costs include extraordinary research specifically done for the purpose of this particular action, additional statistics costs, additional monitoring costs, and additional enforcement costs resulting from the action. In the latter cases, except enforcement, no additional costs are anticipated.

Council costs of document preparation, meetings, and information dissemination.....	\$ 30,000
NMFS administrative costs of document preparation, meetings and review.....	\$ 15,750
Law enforcement costs.....	\$ 30,000
Research and statistics.....	None additional
TOTAL.....	<u>\$ 75,750</u>

Summary and Expected Net Impact of Proposed Action

The proposed regulatory action constitutes changes in commercial trip limits for the Gulf king mackerel fishery. The emphasis of the summary is on the expected economic impact of the preferred alternatives.

The Preferred Alternative for the commercial trip limits in the Northern Area is expected to result in higher short-run net economic benefits, in terms of producer and consumer surplus, to the fishery. The long-run effects will be towards dissipation of such benefits as more vessels enter the fishery at the prospect of higher short-run profitability.

For the South/West Area, the Preferred Alternative is determined to have mainly distributional effects although it may have some adverse implications on the short-run profitability of the hook-and-line segment of the fishery.

Government costs for preparing and implementing this action are estimated at \$ 75,750.

Determination of a Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it is likely to result in: a) an annual effect on the economy of \$100 million or more; b) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The entire commercial Gulf and Atlantic king mackerel fishery is valued at significantly less than \$100 million. The trip limits proposed for the Northern Area and for the hook-and-line fishery in the South/West Area are expected to result in revenue increases but are deemed to be significantly less than \$100 million annually. Hence, given the size of the fishery and the mentioned revenue effects of the proposed actions, it is concluded that impacts on the fishery resulting from this regulatory action would be significantly less than \$100 million annually.

The proposed changes in the commercial trip limits for the hook-and-line fishery in the Northern and South/West Areas of the Eastern Zone of the commercial king mackerel fishery have been determined to result in an increase in revenues to the harvest sector and therefore in an increase in expenditures to the consumers. However, price per pound to consumers are not expected to increase, and in fact may decrease due to an increase in landings that would drive the prices down given that mackerel demand is elastic.

The proposed changes in the commercial trip limits for the Northern and South/West Areas of the Eastern Zone Gulf king mackerel fishery are expected to effect no major cost increase to the Gulf mackerel industries. The \$45,750 identified as federal cost has been incurred in the preparation of the regulatory action. An additional \$30,000 is expected to be incurred to enforce the changes in trip limits for the hook-and-line fishery in the

South/West Area and Northern Area of the Eastern Zone Gulf king mackerel fishery.

The proposed changes in the trip limits on the fishery in the Northern Area is also expected to rule out any adverse effects on employment, investment, productivity, innovation, or on the competitive status of the domestic fishery relative to domestic and foreign markets. On the other hand, the proposed trip limits on hook-and-line vessels in the South/West Area may create inefficiencies on larger vessels. It is likely though that the extent of such effects is relatively small.

It is therefore concluded that this regulation if enacted would not constitute a "significant regulatory action" under any of the mentioned criteria.

Initial Regulatory Flexibility Analysis

Introduction

The purpose of the Regulatory Flexibility Act is to relieve small businesses, small organizations, and small governmental entities from burdensome regulations and record keeping requirements. The category of small entities likely to be affected by the proposed regulatory amendment is that of commercial businesses currently engaged in the Eastern Zone of the Gulf king mackerel fishery. The impacts of the proposed action on these entities have been discussed above. The following discussion of impacts focuses specifically on the consequences of the proposed action on the mentioned business entities. An Initial Regulatory Flexibility Analysis (IRFA) is conducted to primarily determine whether the proposed action would have a "significant economic impact on a substantial number of small entities." Although an IRFA focuses more on adverse effects, determination of beneficial significant effects is also an integral component of the analysis. In addition to analyses conducted for the Regulatory Impact Review (RIR), the IRFA provides an estimate of the number of small businesses affected, a description of the small businesses affected, and a discussion of the nature and size of the impacts.

Description of Economic Impacts on Small Entities

In general, a "substantial number" of small entities is more than 20 percent of those small entities engaged in the fishery (NMFS, 1992). In the Gulf area, a total of 3,069 mackerel permits were issued broken down into 1,623 commercial, 938 charter boat, and 549 both commercial and charter boat permits. In the Northern Area of the Eastern Zone of the Gulf king mackerel fishery, there are about 150 hook-and-line vessels, and in the South/West Area of this Eastern Zone there are about 100 troll vessels and 12 to 20 net vessels. The Small Business Administration (SBA) defines a small business in the commercial fishing activity as a firm with receipts of up to \$2.0 million annually. Since the proposed action will affect practically all participants of the Eastern Zone commercial Gulf king mackerel fishery, the "substantial number" criterion will be met in general.

Economic impacts on small business entities are considered to be "significant" if the proposed action would result in any of the following: a) reduction in annual gross revenues by more than 5 percent; b) increase in total costs of production by more than 5 percent as a result of an increase in compliance costs; c) compliance costs as a percent of

sales for small entities are at least 10 percent higher than compliance costs as a percent of sales for large entities; d) capital costs of compliance represent a significant portion of capital available to small entities, considering internal cash flow and external financing capabilities; or e) as a rule of thumb, 2 percent of small business entities being forced to cease business operations (NMFS, 1992).

The proposed trip limits for both the Northern and South/West Areas are expected to increase benefits to the industry or to some segments of the industry and therefore rule out potential major reduction in gross revenues (item a) and potential major increases in compliance costs (items b through d) to the entire industry.

Considering that all participants in the commercial Gulf king mackerel fishery may be deemed small business entities, the issue of big versus small business operations is not relevant in determining distributional/regional effects of regulations, and it thus also rules out disproportionate effects on capital costs of compliance (item d). The proposed trip limits for both the Northern and South/West Areas of the Eastern Zone of the Gulf king mackerel fishery are not very restrictive as to force any business operation to cease business (item e). In fact, the trip limits in the Northern Area may invite more entrants into the fishery.

It can be inferred from the foregoing discussion that the proposed regulation, if enacted, will have no significant economic impact on a substantial number of small entities in the commercial Gulf king mackerel fishery. Therefore, an IRFA is not required.

VI. ENVIRONMENTAL CONSEQUENCES

Physical Environment: To the extent that can be ascertained, the action proposed in this amendment will have no impact on the physical environment. Gear traditionally used in this fishery (hook-and-line and run around gill-nets) have no adverse impact on the bottom substrate or other habitat. As deployed in this fishery, both gear are selective to the target species. Continuing studies have provided no new information beyond that already contained in the FMP as amended and which further defines the relationship between stocks and habitat.

Fishery Resources: The current TACs are consistent with the Council's objective of rebuilding stocks. The proposed action is intended to protect coastal pelagic fish stocks from recruitment and growth overfishing while allocating allowable catch among fishermen. The proposed action would have insignificant effect on the fishery resources.

Human Environment and Social Impact Assessment: The management of fisheries may directly affect the human environment. Current social data on users in the mackerel fishery affected by this amendment are sparse. Most of the known impact is of an economic nature. A determination of the net impact on the users of the resource by the proposed action is in the regulatory impact review and initial regulatory flexibility analysis (Section V). The impact on fishery resource users in adjacent areas has been coordinated with the appropriate Council.

Effect on Endangered Species and Marine Mammals: The NOAA conducted a consultation under Section 7 of the Endangered Species Act regarding the impact of Amendment 6 which included the framework measures under which this action is being taken. Therefore, no additional Section 7 consultation is necessary. A biological opinion resulting from that consultation found that (1) Amendment 6 did not contain any regulatory changes that would adversely affect listed species of sea turtles, marine mammals, or fish, or their respective habitats; and (2) the fisheries for coastal migratory pelagic resources will not jeopardize the continued existence of any listed species.

Effect on Wetlands: The proposed action will have no effect on flood plains, wetlands, or rivers.

Mitigating Measures: No mitigating measures related to the proposed action are necessary because there are no harmful impacts to the environment.

Unavoidable Adverse Affects: The proposed action does not create unavoidable adverse affects.

Irreversible and Irretrievable Commitments of Resources: There are no irreversible commitments of resources caused by implementation of this amendment.

Finding of No Significant Environmental Impact

The proposed action is not a major action having significant impact on the quality of the marine or human environment of the Gulf of Mexico. The proposed action is an adjustment of the original regulations of the FMP under the framework procedure set forth in Amendment 6 to rebuild overfished stocks. The proposed action should not result in impacts significantly different in context or intensity from those described in the environmental impact statement and environmental assessment published with the regulations implementing the FMP and Amendment 6. The environmental consequences of this action are almost entirely economic in nature and are discussed in the Regulatory Impact Review and Initial Regulatory Flexibility Analysis in Section V.

Having reviewed the environmental assessment and available information relative to the proposed actions, I have determined that there will be no significant environmental impact resulting from the proposed actions. Accordingly, the preparation of a formal environmental impact statement on these issues is not required for this amendment by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

Approved: _____

Assistant Administrator for Fisheries

Date

Scientific Data Needs

To monitor stocks to determine whether overfishing occurs, the SEFC of NMFS currently monitors catch by size (age) to estimate recruitment and acceptable biological catch. No

additional collection of scientific data would be required by this amendment. The Mackerel Stock Assessment Panel and the Socioeconomic Assessment Panel have identified the following data needs:

1. An evaluation of CPUE indices should be completed relative to standardization methods and management history.
2. The socioeconomic risks of selecting TAC's above the recommended ABC range needs to be completed.
3. The size at age of both king and Spanish mackerel need to be evaluated.
4. Size/age samples need to be increased for cobia, particularly in the Gulf.
5. The identification of Spanish mackerel stocks through multiple research techniques need to be completed.
6. Yield per recruit analyses should be conducted relative to alternative selective fishing patterns.
7. Mexican landings data need to be obtained.
8. Research on the consequences and estimation of bycatch needs to be completed.
9. Research on the application of assessment and management models relative to dynamic species such as Spanish mackerel needs to be completed.
10. Recreational and commercial demand studies on the Spanish mackerel fishery need to be conducted and there is a need to estimate supply functions for the vessels involved in the commercial and for-hire mackerel fishery. The supply studies would involve collection of vessel costs and returns information. The studies should also involve consideration of the effect of Mexican fisheries for Spanish and king mackerel.
11. There remains a need to determine the priority research which is necessary to provide minimally acceptable analyses of stock allocation among user groups.
12. The Socioeconomic Assessment Panel recommends that the Marine Recreational Fisheries Statistical Survey be augmented in ways that provide additional data for estimating economic models.

VII. OTHER APPLICABLE LAW

Impacts on Other Fisheries: The proposed action distributes the limited quota among fishermen throughout the area by means of trip limits. It does not redirect effort to other fisheries. The majority of those fishermen in the South/West Area have indicated a preference to a short fishing season for king mackerel because of their diversified options and access to other fisheries which they traditionally pursue.

Vessel Safety: The proposal for implementation of daily commercial trip possession limits for mackerel was discussed with representatives of the affected Coast Guard District and commercial fishermen. They believed that because some catch was allowed on all days during the restricted daily limit period, fishermen would not require alternative fishing opportunity to compensate for unsafe weather for fishing. It was felt that these possession limits posed fewer safety problems than the current derby fishing in which vessels tend to fish as hard as possible regardless of weather conditions before the quota is taken.

Therefore, the proposed actions do not impose requirements for use of unsafe (or other) gear nor do they direct fishing effort to periods of adverse weather conditions.

Paperwork Reduction Act: The Council proposes no additional permit or data collection programs in this amendment.

Federalism: This proposed action does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under E.O. 12612.

VIII. PUBLIC REVIEW

A Hearing to obtain public comment on this regulatory amendment was held by the Gulf of Mexico Fishery Management Council at Tampa, Florida on May 10, 1995. Industry workshops to discuss king mackerel management were held at Key West, Florida on January 30 and at Panama City, Florida on February 20, 1995.

List of Agencies Consulted:

Gulf of Mexico Fishery Management Council's

- Scientific and Statistical Committee
- Mackerel Stock Assessment Panel
- Socioeconomic Assessment Panel
- Mackerel Advisory Panel

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office

List of Organizations Consulted:

- Concerned Fishermen of Florida
- Organized Fishermen of Florida
- Monroe County Concerned Fishermen, Inc.

Responsible Agency:

Gulf of Mexico Fishery Management Council
5401 West Kennedy Boulevard
Suite 331
Tampa, Florida 33609
813-228-2815

List of Preparers:

Gulf of Mexico Fishery Management Council
Terrance Leary, Fishery Biologist
Antonio Lamberte, Economist

IX. REFERENCES

Easley, J. E., Jr., C. Adams, W. N. Thurman, and J. Kincaid. 1993. The derived demand for commercially harvested Gulf and South Atlantic king mackerel: partial and general equilibrium models. Project report to the Gulf of Mexico Fishery Management Council. Available from the Gulf of Mexico Fishery Management Council, Tampa, Florida.

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National Marine Fisheries Service. 1992. Appendix 2.d: Guidelines on regulatory analysis of fishery management actions. In Operational guidelines for fishery management plan process. NMFS, Silver Spring, Maryland.

Socioeconomic Assessment Panel (R. Riechers, Chairman). 1995. Report of the fourth mackerel socioeconomic panel meeting. Available from the Gulf of Mexico Fishery Management Council, Tampa, Florida.

Stock Assessment Panel (J. Powers, Chairman). 1995. Report of the mackerel stock assessment panel. Available from the Gulf of Mexico Fishery Management Council, Tampa, Florida.

Appendix I

Section 6.1.1: Mechanism for Determination of Framework Adjustments, as modified by this and previous amendments, is revised as follows:

Section 12.6.1.1

- A. An assessment panel appointed by the Councils will normally reassess the condition of each stock or group of king and Spanish mackerel and cobia in alternate years for the purpose of providing for any needed preseason adjustment of TAC and other framework measures. However, in the event of changes in the stocks or fisheries, the Councils may request additional assessments as may be needed. The Councils, however, may make annual seasonal adjustments based on the most recent assessment.

The panel shall be composed of NMFS scientists, Council staff, Scientific and Statistical Committee members and other state, university, and private scientists as deemed appropriate by the Councils. The panel will address the following items for each stock:

1. Stock identity and distribution. This should include situations where there are groups of fish within a stock which are sufficiently different that they should be managed as separate units. If several possible stock divisions exist, the assessment panel should describe the likely alternatives.
2. MSY for each identified stock. If more than one possible stock division exists, MSY for each possible combination should be estimated.
3. Condition of the stock(s) or groups of fish within each stock which could be managed separately. When the panel is able to provide separate ABC ranges for the eastern and western groups of Gulf king mackerel, separated at the Alabama-Florida border, the ratio of the mix is to be calculated on allele frequencies. Allocations between recreational and commercial users are to remain unchanged or 68 to 32 percent. For each stock, this should include but not be limited to:
 - a. Fishing mortality rate relative to F_{msy} or $F_{0.1}$.
 - b. Abundance relative to an adequate spawning biomass.
 - c. Trends in recruitment.
 - d. Acceptable Biological Catch (ABC) which will result in long-term yield as near MSY as possible.
 - e. Calculation of catch ratios based on catch statistics using procedures defined in the FMP.
4. Overfishing.
 - a. A mackerel or cobia stock shall be considered overfished if the spawning potential ratio (SPR) is less than the target level percentage recommended by the assessment panel, approved by the Scientific and Statistical Committee (SSC), and adopted by the Councils.

The target level percentage shall not be less than 20 percent. (Based on the recommendation of the assessment panel and approval by the SSC, the Councils and RD have approved a SPR of 30 percent for king and Spanish mackerels.)

- b. When a stock is overfished (as defined in a), the act of overfishing is defined as harvesting at a rate that is not consistent with programs to rebuild the stock to the target level percentage and the assessment panel will develop ABC ranges based on a fishing mortality rate that will achieve and maintain at least the minimum specified SPR. The recovery period is not to exceed 12 years for king mackerel beginning in 1985 and 7 years for Spanish mackerel beginning in 1987.
 - c. When a stock is not overfished [as defined in (a)], the act of overfishing is defined as a harvest

rate that if continued would lead to a state of the stock that would not at least allow a harvest of OY on a continuing basis, and the assessment panel will develop ABC ranges based upon OY (currently MSY).

5. Management options. If recreational or commercial fishermen have achieved or are expected to achieve their allocations, the assessment panel may delineate possible options for nonquota restrictions on harvest, including effective levels for such actions as:
 - a. Bag limits
 - b. Size limits
 - c. Gear restrictions
 - d. Vessel trip limits
 - e. Closed season or areas, and
 - f. Other options as requested by the Councils
 6. Other biological questions as appropriate.
- B. The assessment panel will prepare a written report with its recommendations for submission to the Councils, by such date as may be specified by the Councils. The report will contain the scientific basis for their recommendations and indicate the degree of reliability which the Council should place on the recommended stock divisions, levels of catch, and options for nonquota controls of the catch.
 - C. The Councils will consider the report and recommendations of the assessment panel and such public comments as are relevant to the assessment panel's submission. A public hearing will be held at a time and place where the Councils consider the panel's report. The Councils may convene the joint Advisory Panel and may convene the Scientific and Statistical Committee to provide advice prior to taking final action. After receiving public input, Councils will make findings on the need for changes.
 - D. If changes are needed in MSYs, TACs, quotas, bag limits, size limits, vessel trip limits, closed seasons or areas, gear restrictions, or initial requirement of permits for each stock of king or Spanish mackerel or cobia, the Councils will advise the Regional Director of the Southeast Region of the National Marine Fisheries Service (RD) in writing of their recommendations, accompanied by the assessment panel's report, relevant background material, and public comment.

Recommendations with respect to the Atlantic groups of king and Spanish mackerel will be the responsibility of the South Atlantic Council, and those for the Gulf groups of king and Spanish mackerel will be the responsibility of the Gulf Council. This report shall be submitted by such date as may be specified by the Councils.

- E. The RD will review the Councils' recommendations, supporting rationale, public comments, and other relevant information, and if he concurs with the recommendation, will draft regulations in accordance with the recommendations. He may also reject the recommendation, providing written reasons for rejection. In the event the RD rejects the recommendations, existing regulations shall remain in effect until resolved. However, if the RD finds that a proposed recreational bag limit for Gulf migratory group or groups of king mackerel is likely to exceed the allocation and rejects the Council's recommendation, the bag limit reverts to one fish per person per day.
- F. If the RD concurs that the Councils' recommendations are consistent with the goals and objectives of the plan, the National Standards, and other applicable law, he shall implement the regulations by notice in the Federal Register prior to the appropriate fishing year or such dates as may be agreed upon with the Councils. A reasonable period for public comment shall be afforded, consistent with the urgency, if any, of the need to implement the management measure.

Appropriate regulatory changes which may be implemented by the Regional Director by notice in the Federal Register include:

1. Adjustment of the point estimates of MSY for cobia, for Spanish mackerel within a range of 15.7 million pounds to 19.7 million pounds, and for king mackerel within a range of 21.9 million pounds to 35.2 million pounds.
2. Setting total allowable catches (TACs) for each stock or group of fish which should be managed separately, as identified in the FMP provided:
 - a. No TAC may exceed the best point estimate of MSY by more than ten percent.
 - b. No TAC may exceed the upper range of ABC if it results in overfishing as defined in Section 12.6.1.1, A.4.
 - c. Downward adjustments of TAC of any amount are allowed in order to protect the stock and prevent overfishing.
 - d. Reductions or increases in allocations as a result of changes in the TAC are to be as equitable as may be practical utilizing similar percentage changes to allocations for participants in a fishery. (Changes in bag limits cannot always accommodate the exact desired level of change.)
3. Adjusting user group allocations in response to changes in TACs according to the formula specified in the FMP.

Implementing or modifying quotas, adjusted quotas, bag limits, size limits, vessel trip limits, closed seasons or areas, gear restrictions, or initial requirement of permits, as necessary to limit the catch of each user group to its allocation.

Appendix 2

GULF GROUP KING MACKERREL
1995/96 RECOMMENDATIONS AND HISTORICAL SPECIFICATION OF TAC AND ALLOCATIONS, AND LANDINGS ESTIMATES
MILLIONS OF POUNDS
(NMFS:SER011:NFG: 05/03/95,LOTUS/GKINSPEC)

ALLOCATIONS

CATCH (Incomplete *)

FISHING YEAR	HST**	ABC RANGE	MOST LIKELY	RECREATIONAL				COMMERCIAL (LBS) ZONES			RECREATIONAL				COMMERCIAL		TOTAL						
				TAC	POUNDS (68% TAC)	N	MEAN SIZE POUNDS	BAG LIMITS	TOTAL (32% TAC)	WEST (TX-AL) (31%)	EAST (FL) (69%)	N	POUNDS	% ALLOC.	CLOSED	POUNDS	% ALLOC.	POUNDS	% TAC	% REC	% COMM		
79/80														590,000	4.326		4.509		8.835		49.0		51.0
80/81														1,670,000	13.709		6.154		19.863		69.0		31.0
81/82														872,000	7.956		5.997		13.953		57.0		43.0
82/83	37.0			37.0	28.0				9.00	3.88	NAL 5.12 net		477,000	3.738		4.758		8.496		44.0		56.0	
83/84													292,000	2.151		2.982		5.133		41.9		58.1	
84/85													424,000	3.783		3.179		6.962		54.3		45.7	
85/86	26.2	10.7 - 14.9	14.23	14.2	9.67			2/3 TX-FL	4.55	1.41	3.14												
86	EMERGENCY	March 11, 1986																					
	26.2	0.98 - 2.34		5.20	3.54			2/3 TX-FL	1.66	0.48	1.08		261,000	2.569	73		3.495	210	6.064	117	42.4		57.6
86/87	26.2	1.2 - 2.9		2.90	1.97			2/3 TX-FL	0.93	0.27	0.60		382,000	3.046	154		1.159	125	4.205	145	72.4		27.6
87/88	26.2	0.6 - 2.7		2.20	1.50			2/3 TX-FL	0.70	0.22	0.48		245,000	2.001	134	12/16/87	0.861	122	2.862	130	69.9		30.1
88/89	26.2	0.5 - 4.3		3.40	2.31			2/3 TX-FL	1.09	0.34	0.75		456,000	4.550	197	12/17/88	1.405	129	5.955	175	76.4		23.6
89/90	26.2	2.7 - 5.8		4.25	2.89	298,000	9.70	2/3 TX-FL	1.36	0.42	0.94		514,000	3.366	116	05/21/90	1.883	138	5.249	124	64.1		35.9
90/91	26.2	3.2 - 5.4	3.90	4.25	2.89	301,000	9.61	2/3 TX-FL	1.36	0.42	0.94		502,000	3.943	136	12/20/90	1.845	136	5.788	136	68.1		31.9
91/92	26.2	4.0 - 7.0	4.90	5.75	3.91	574,000	6.81	2/3 TX-AL 2 FL	1.84	0.57	1.27		738,000	4.496	115	01/13/92	1.945	106	6.441	112	69.8		30.2
92/93	26.2	3.6 - 6.1	4.50	7.80	5.30	715,000	7.42	2 TX-FL	2.50	0.77	1.73		592,000	5.702	108		3.463	139	9.165	118	62.2		37.8
GNFNC		4.0 - 10.7	5.10																				
93/94	26.2	1.9 - 4.5	4.00																				
GNFNC		1.9 - 8.1	4.00	7.80	5.30	759,000	6.98	2 TX-FL	2.50	0.77	1.73		628,000	5.288	100		2.568	103	7.856	101	67.3		32.7
*94/95	26.2	3.6 - 5.7																					
GNFNC		1.9 - 8.1	5.70	7.80	5.30	768,000	6.90	2 TX-FL	2.50	0.77	1.73		679,667	5.723	108		2.913	117	8.636	111	66.3		33.7
*95/96	26.2																						

1995/96 Recommendations

SOCIOECONOMIC PANEL (SEP)	2.0-5.5							1 TX-FL																	
GNFNC MACK. ADVISORY PANEL	7.80	5.30						2 TX-FL	2.50	0.77	1.73														

GNFNC MACKERREL COMMITTEE

GNFNC (FULL COUNCIL)

COMMERCIAL CATCH GULF ZONES

COMMERCIAL CATCH CLOSURE LOGS						
W E S T			E A S T			
FISHING YEAR	POUNDS	% QUOTA	A CLOSED	POUNDS	% QUOTA	CLOSED

82/83	Commercial hook-and-line fishery closed 2400 hrs May 6 through June 30, 1983					
85/86						
86 EMERGE	0.872	182	03/12/86	2.577	239	03/12/86
86/87	0.468	173	02/04/87	0.955	159	02/04/87
87/88	0.270	124	11/02/87	0.397	83	12/29/87
88/89	0.457	135	12/03/88	0.928	124	12/31/88
89/90	0.657	156	10/25/89	1.177	125	01/09/90
90/91	0.638	151	10/18/90	1.011	108	01/04/91
91/92	0.587	103	09/29/91	1.324	104	01/31/92
*92/93	1.138	148	10/18/92	2.306	133	01/13/93
92/93 EMERGENCY				Reopen FNC-2/18	- 3/26/93 under 259K lb supplies	
*93/94	0.892	116	10/01/93	1.663	96	01/27/94 (West Sub-Zone)
*94/95	0.840	109	09/24/94	2.163	125	12/20/94 NAL (0.4325 quota)
						02/03/95 Met (0.4325 quota)
94/95 EMERGENCY				Reopen FNRAL: 2/01	- 2/21/95 under 300K lb supplies	

* Incomplete
** HST for Atlantic/Gulf combined
le = less than or equal to