WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL

Amendment 2
and Environmental Assessment

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Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region

February, 1991

Western Pacific Regional Fishery Management Council
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Table of Contents

1.0 PREFACE

1.1 Introduction

The Hawaii longline fishery for pelagic species (tuna, billfish, oceanic sharks, and other species) has more than tripled during the past 3 years. During 1987, an estimated 40-50 vessels were engaged in longline fishing in Hawaii. Presently, there are over 150 vessels fishing with longline gear. This unprecedented, unplanned, and uncontrolled expansion of the tuna-billfish longline fleet in Hawaii has triggered numerous reports of increased, negative fishery interactions between segments of the longline fleet and Hawaii's small boat fishermen (trollers and handliners) and has raised concerns about serious problems with data collection and longliner non-compliance with State of Hawaii licensing and reporting requirements. Concerns have arisen over the lack of meaningful data with which to monitor the fisheries and assess potential impacts of increasing longline fishing pressure on the stocks of fish being harvested and on the different fisheries for pelagic species in Hawaii. In addition, reports have arisen over longliner interactions with endangered Hawaiian monk seals, threatened sea turtles and albatrosses which are protected by the Migratory Bird Treaty Act.

Based on these concerns, the Western Pacific Regional Fishery Management Council (Council), at its meeting on June 20, 1990, voted to ask the Secretary of Commerce (Secretary) to issue an emergency rule to establish Federal permit, reporting, and observer requirements for domestic longline vessels. The Secretary agreed with the Council's request, and issued an interim emergency rule to that effect. The interim emergency rule became effective on November 27, 1990 (Federal Register, Vol 55, No. 228, November 27, 1990, pgs. 49285-49289). (Emergency rules are effective for 90 days with a possible extension to 180 days.) The National Marine Fisheries Service (NMFS) has requested the Secretary to extend the interim emergency rule.

1.2 Principal Requirements of the Interim Emergency Rule

The interim emergency federal regulations include the following requirements:

- Federal permits, issued by the NMFS, are required for (a) any vessel of the United States using longline gear, (b) United States vessels transshipping longline-caught pelagic species within the U.S. Exclusive Economic Zone (EEZ) of the Western Pacific Region, and (c) U.S. vessels landing longline-caught fish in Hawaii, American Samoa, and Guam.

- Mandatory NMFS logbooks, containing information on longline fishing effort and catch of tuna, billfish, oceanic sharks and associated species as well as encounters with protected animals, must be completed daily by operators of U.S. longline vessels. Vessel operators must notify the NMFS within 12 hours following each fish landing or transshipment operation. The logbooks must be submitted to the NMFS within 72 hours (3 days) following the landing of fish.

- An official number identifying each permitted longline vessel must be affixed to the port and starboard sides of the deckhouse or hull and on a weather deck so as to be clearly visible from enforcement vessels and aircraft.

- Notification to NMFS must be provided by an operator of a longline vessel who wants to fish within a 50-mile protected species study area around French Frigate Shoals, Gardner Pinnacles, Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Island, and Kure Atoll of the Northwestern Hawaiian Islands. The notice must be made at least 72 hours prior to the fishing vessel leaving port to allow NMFS to arrange for the possible placement of a federal observer on board the vessel.

The intent of this amendment to the Fishery Management Plan (FMP) for the Pelagic Fisheries of the Western Pacific Region is to indefinitely continue the longline federal permit, reporting, and observer requirements (with slight modifications) beyond the expiration date of the emergency rule.

1.3 List of Preparers

This amendment to the FMP was prepared by Council staff member, Justin Rutka, and Alvin Katekaru and Svein Fougner of the National Marine Fisheries Service (NMFS), Southwest Region, with input from Martin Hochman and Lauren Rogerson, Office of General Counsel, NMFS Southwest Region and the Council's Pelagic Plan Monitoring Team:

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1.4 Public Review and Comment

The Magnuson Fishery Conservation and Management Act (Magnuson Act) requires the Regional Councils to involve fishermen and other interested parties in developing FMPs and amendments. This is to ensure that those who can be affected will have an opportunity to give the Regional Councils their views about a proposed action and alternatives considered and to provide information to the Regional Councils.

The actions proposed in this amendment were topics of discussion at a June 4, 1990 meeting among Council members, longline fishermen, and fish buyers at a fish auction in Honolulu. The amendment was further discussed on June 18, 1990 at a Council-sponsored Fishermen's Forum, and on June 19, 1990 at a well-attended meeting of the Council's Standing Committee on Pelagic Species. The proposed actions were also taken up on June 20, 1990 at the Council's regular meeting. A draft of this

amendment was also reviewed by the Council's Scientific and Statistical Committee on September 25, 1990 and by the Council on September 28, 1990. All of these meetings were advertised in the local news media, and meeting notices were listed in the Federal Register.

On July 11, 1990, the Council formally requested the Secretary to promulgate an emergency interim rule. The interim emergency rule became effective on November 27, 1990, and all longliners were informed of this action by letter. The purpose of this amendment is to extend the data collection measures of the emergency rule indefinitely. The proposed rules of this amendment will be published in the Federal Register. The Secretary will consider comments from the public in deciding whether to approve the proposed amendment. The final rule will be responsive to comments received and, as appropriate, these comments will be incorporated into the final regulations.

1.5 Responsible Agencies

The Council was established by the Magnuson Act to develop fishery management plans for fisheries in the U.S. EEZ around American Samoa, Hawaii (including the Northwestern Hawaiian Islands), Guam, the Northern Mariana Islands, and United States possessions in the Pacific[1]. Once a fishery management plan is approved by the Secretary, it is implemented by federal regulations which, in turn, are enforced by the National Marine Fisheries Service (NMFS) and the U.S. Coast Guard.

The FMP for Pelagic Fisheries of the Western Pacific Region (which addresses fisheries for billfish, oceanic sharks, mahimahi, and wahoo) became effective on March 23, 1987. Regulations pertaining to the domestic fisheries are in Title 50, Code of Federal Regulations, Part 685. Regulations governing foreign fisheries are in part 611, Subpart F -- Western Pacific Ocean.

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[1]Howland and Baker Islands, Jarvis Island, Johnston Atoll, Kingman Reef and Palmyra Island, and Wake Island.

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2.0 PROPOSED ACTIONS

Amendment 2 to the existing regulations of the FMP will continue the longline permit and reporting requirements beyond the expiration date of the interim emergency rule.

Specifically, Amendment 2 would:

(1) More clearly defines the scope of the management units of the FMP. A management unit is established for each of the species of fish taken in the longline fishery. That is, the longline fishery is defined under this amendment to consist of (a) the species management units, which are billfish, sharks, mahimahi, wahoo and other non-tuna species which occur in the EEZ but range far beyond the EEZ (see section 8.1.1 for a description of the stocks); and (b) longline fishing and support activities which occur in the Council's management area or occur beyond the EEZ but have impacts on fishing and support activities in the Council's management area under the FMP. This definition is consistent with the Magnuson Act, which defines a fishery as the stocks being harvested, and the fishing for such stocks (section 3(8)). The proposed amendment imposes regulatory requirements on domestic longline harvesting vessels and support industries that capture or engage in trade of billfish and other non-tuna species from the management unit inside the EEZ or which operate outside the EEZ but subsequently import management unit species into the EEZ. This broad definition of the fishery under the FMP is crucial for two reasons. First, it is the Council's intent to manage the longline fishery within the EEZ to prevent overfishing and achieve the optimum yield from the fishery. There are vessels which fish both inside and beyond the EEZ but whose operations clearly affect the fisheries in the EEZ. If the fishery were not defined broadly, the FMP could be rendered virtually useless. Vessels could claim they were fishing only beyond the EEZ and thus avoid permitting and reporting requirements. The ability to carry out conservation and management measures over all vessels which use or affect the stocks or other fishing in the Council's management area in some way would be severely compromised. Second, the ability to collect and analyze data would be greatly reduced, and data needed to assess the status of stocks, evaluate the effectiveness of the FMP, and determine the need for changes in management to prevent overfishing and achieve optimum yield would not be available. The stocks and the fishing for the stocks range far beyond the EEZ, and data on all

fishing for the stocks are necessary to ensure an adequate understanding of the impact of the longline fishery on the stocks and of the impact of the longline fishery in and outside the EEZ on other fisheries for the same stocks in the Council's management area. In addition, the amendment requires the reporting of catch and transshipments of tuna by longline vessels. This is necessary to ensure full accounting of the economic values and importance of the fishery, including non-tuna and tuna components, so that economic impacts of current and future conservation and management measures can be considered, as required by the Magnuson Act and other applicable law. Further, tuna catch data are necessary to support stock assessments which will be needed for management of tuna fisheries in the future.

(2) Require a federal permit (Appendix A.1), issued by the NMFS, for (a) any vessel of the United States fishing with longline gear throughout the entire range of species of tuna, billfish, oceanic sharks, mahimahi, and wahoo in the tropical and subtropical central and western Pacific Ocean, (b) for any vessel of the United States transshipping longline-caught fish within the EEZ of the Western Pacific Region, and (c) for any vessel of the United States landing longline-caught fish in Hawaii, American Samoa, Guam, the Northern Mariana Islands, and United States possessions in the Pacific.

(3) Require domestic longliners to keep daily records of fishing effort and catches of billfish, tunas, oceanic sharks, and associated pelagic species as well as observations of encounters with protected animals in a daily logbook (Appendix A.2). Require United States vessels transshipping longline-caught fish in the U.S. EEZ of the Western Pacific Region to keep a transshipment log (Appendix A.3). Require domestic longliners to file a landing report (appropriate state/territorial landings reports would suffice.) Vessel operators must notify the NMFS within 12 hours of the time, date, and place of landings and/or transshipment. The logbooks must be submitted to the NMFS within 72 hours (3 days) following the landing and/or transshipment of longline-caught fish. Vessel operators who fail to meet the reporting requirements will not have their permits renewed.

(4) Require domestic longline vessels and transshipment vessels to affix an official number identifying each permitted vessel to the port and starboard sides of the

deckhouse or hull and on a weather deck so as to be clearly visible from enforcement vessels and aircraft.

(5) Require domestic longline vessels to affix the vessel's official number on the floats of the longline gear.

(6) Require domestic longline vessel operators to notify the NMFS if they wish to fish within a 50-mile protected species study area around Nihoa Island, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef[2], Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Island, and Kure Atoll of the Northwestern Hawaiian Islands (NWHI). The NMFS may require any longline vessel fishing in the study area to carry an observer to document interactions between the fishery and protected species to document catches, and to take biological measurements and samples of the catches. The notification must be made at least 72 hours prior to the fishing vessel leaving port to allow the NMFS to arrange for the possible placement of a federal observer on board the vessel. The Regional Director of the NMFS may change the size of the study area if he determines, based on observers' reports or other information, that the fishery is not having and is not likely to have an adverse impact on any protected species or any critical habitat designated under the Endangered Species Act. Prior to making any changes in the study area, the Regional Director shall consult with the Council and present the Council with the information and rationale to support such changes. Proposed changes in the size of the study area shall be announced through publication of a notice in the Federal Register at least thirty (30) days prior to the effective date of the change. The information used by the Regional Director to make changes in the study area shall be available for public review and comment in the thirty (30) day period prior to the effective date of any such changes.

Operators of longline vessels that intend to fish in the EEZ of the NWHI must attend an orientation meeting with the Pacific Area Office of the NMFS regarding

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[2]Maro Reef is an important foraging area of the endangered Hawaiian monk seal. Maro Reef was inadvertently left out from the interim emergency regulations. Nihoa Island and Necker Island have been included in the protected species study area since Hawaiian monk seals also inhabit these islands.

procedures for protecting endangered and threatened species, marine mammals, and seabirds.

3.0 RELATED COUNCIL ACTIONS

When the Council's FMP for pelagic species was initially implemented on March 23, 1987, reliance was placed on the existing catch and fishing effort reporting systems of the State of Hawaii and the Territories of American Samoa and Guam. These local systems have demonstrated major weaknesses due to inadequate reporting of commercial catch and effort information by domestic fishermen -- both longliners and small boat fishermen (trollers and handliners). To correct the problems due to non-reporting or underreporting of commercial catches, the Council recommended that non-compliance with State catch reporting requirements become a federal violation as well. On October 25, 1990, the Department of Commerce issued a rule to that effect, and the rule became effective on November 26, 1990 (Federal Register, Vol. 55, No. 207, October 25, 1990, p. 42967).

On December 5, 1990, the Western Pacific Regional Fishery Management Council voted to request the Secretary of Commerce to establish a moratorium (through emergency rule-making procedures) to halt the entry of more vessels into the Hawaii longline fishery for pelagic species. The Council decided that the effective date of the emergency moratorium should be December 5, 1990. If the Council's request for emergency action is approved by the Secretary, vessels entering the Hawaii longline fishery after the December 5, 1990 "control date" would be ineligible for continued participation in the Hawaii longline fishery during the emergency action period if they fail to meet the Council's eligibility criteria.

Prior to taking this action, the Council had sent out a warning to persons considering entering the Hawaii longline fishery after June 21, 1990 that they may be ineligible for continued participation should the Council decide to limit longline fishing effort in the future (Federal Register, Vol. 55, No. 44, July 26, 1990, p. 30491), but longline vessels continued to enter the fishery. (The size of the longline fleet on June 21, 1990 was estimated at about 110 vessels. Presently, there are over 150 vessels engaged in longline fishing in Hawaii.)

The Council intends to follow-up on the emergency action request for a moratorium with an amendment to the FMP for the Pelagic Fisheries to extend the moratorium for a total of 3 years. The FMP amendment to establish the recommended 3-year moratorium period may change the date for continued participation in the longline fishery to June 21, 1990 or some other date between June 21 and December 5, 1990. The fate of some 40 vessels that have joined the fleet since June 21, 1990 will not be determined until a FMP amendment is approved. Should the June 21, 1990 date be chosen for the moratorium period under the plan amendment, any vessel that arrived after June 21 would be asked

to leave the fishery if they fail to meet the eligibility criteria. The 3-year moratorium would provide a planning period to consider limited entry and other conservation and management measures for the western Pacific pelagic fisheries; to conduct data analyses needed to evaluate each measure; and to involve fishery participants and the public in the planning process.

At its December 1990 meeting, the Council also established control dates for the longline fisheries in American Samoa and Guam. The control dates are as follows: American Samoa, January 1, 1991; and Guam, December 6, 1990.

4.0 EFFECTS OF THE PROPOSED ACTIONS

The major objective of Amendment 2 is to increase the quality and quantity of data on the domestic longline fishery. Overall, the proposed actions will provide beneficial effects for the fishermen, longline fishery and protected species. These actions impose a reporting burden upon longline fishermen, but the data to be collected will improve the Council's ability to determine whether changes in management are necessary to conserve fish stocks, maintain the long-term economic viability of the fisheries for pelagic species, and protect or promote the rebuilding of stocks of protected species in the NWHI.

The proposed actions are expected to support maintenance of the long-term productive capability of stocks of pelagic species. The immediate effect of the proposed actions is to obtain fisheries data needed to determine the health of the pelagic stocks and to prevent overfishing. The actions will also provide greater protection to endangered or threatened species and marine mammals.

The proposed actions are not expected to have adverse socioeconomic effects. This amendment is simply for information gathering purposes and not for management or resource allocation purposes. No impact upon the ocean and coastal habitats or public health or safety is anticipated.

5.0 NEED FOR THE PROPOSED ACTIONS

5.1 Rapidly Increasing Fleet Size and Longline Harvest

The longline fishery in Hawaii has become the largest component of the State's fisheries virtually overnight. During 1987, there were an estimated 40-50 longliners operating on a full-time or seasonal basis in Hawaii. That number increased to about 80 vessels in 1989. Now there are over 150 longliners operating in Hawaii, of which 40-50 vessels target swordfish. Longline landings grew very rapidly during these years while commercial troll and handline landings declined.

The impressive rise of longliners in Hawaii is illustrated by the following statistics:

- In 1989, longliners produced as much revenue ($22 million) from ex-vessel fish sales as all of Hawaii's other commercial fisheries combined: [lobster $6.2 million; troll and handline fisheries $5.6 million; bottomfish $4.6 million; and aku (skipjack tuna) $3.0 million].

- In 1989, for the first time, Hawaii-based longliners caught more fish (9.8 million pounds) in the EEZ and beyond than were ever previously taken by foreign longliners in the EEZ surrounding the Hawaiian islands. Catches by foreign longliners in the EEZ of Hawaii peaked in 1976 when 8.6 million pounds were taken. Of these, 87 percent (by weight) were tuna, and 13 percent were billfish and miscellaneous fish. In contrast, 40 percent of the landings of Hawaii longliners in 1989 were billfish and other non-tuna species. Sales of billfish, mahimahi, wahoo, moonfish, and oceanic sharks accounted for 25 percent of the gross sale revenues of the Hawaii longline fleet in 1989.

- During 1989, longliners caught nearly three times more yellowfin tuna than the commercial trollers and tuna handline fishermen did. During previous years, trollers and handliners traditionally have dominated the landings of yellowfin tuna in Hawaii.

- Commercial trollers and handline fishermen caught about 4 and 8 times as much blue marlin as the longliners did during 1987 and 1988 respectively. But in 1989, the longliners caught more blue marlin (est.4,700 fish) than the commercial trollers and handliners did (est. 4,100 fish)

- Longliners regularly catch the largest amounts of bigeye tuna and swordfish in Hawaii, and these are their principal target species. The longline fleet has also been catching around 20,000 striped marlin per year during recent years, compared to 2,000-4,000 striped marlin taken annually by handliners and trollers. Longliners also catch most of the albacore tuna in Hawaii.

- In 1989, an estimated 500,000 pounds of swordfish were landed by 10 Hawaii longliners that began targeting this resource on a part time basis. As of May 1990, 46 longline fishing vessels landed 1.3 million pounds of swordfish on 128 fishing trips[3]. This almost tripled the total swordfish landings for 1989, which was a tenfold increase from 1988. The average 1990 catch of swordfish per trip (through May) was 9,200 pounds. Most of the fishing for swordfish occurred north of the main Hawaiian Islands. The species composition of the catch was 60% swordfish, 30% tunas, and 10% other pelagic species. The number of longliners targeting on swordfish increased throughout 1990, particularly as the longline catch of bigeye tuna declined seasonally, and the catch of lesser valued species (e.g. striped marlin and albacore tuna) increased.

Unless the Council's request for emergency action to halt the entry of more vessels into the Hawaii longline fishery for pelagic species is approved by the Secretary, more longliners will arrive in Hawaii as vessels continue to leave the depleted swordfish longline fishery in the Atlantic, and the overcapitalized longline fishery for yellowfin tuna in the Gulf of Mexico (where catches of yellowfin tuna dropped from 17.1 million pounds in 1988 to 12.4 million pounds in 1989)[4]. The ex-vessel value of yellowfin tuna landings in the Gulf of Mexico declined from $28.6 million in 1988 to $17.0 million in 1989, a drop of 40%. Excess fishing effort in other mainland fisheries will continue to spur entry of additional longline vessels into the Hawaii fishery unless a moratorium is quickly established.

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[3]Swordfish data for 1990 were provided by the market monitoring program of the Honolulu Laboratory of the NMFS. Sample market data for 1990 covering the other pelagic species are still in preliminary form and landings estimates are unavailable at present.

[4]March 29, 1990 letter from Guy S. Davenport, NMFS Southeast Fisheries Center to John Kaneko, Hawaii Seafood Products.

Assessing the impact of the rapid increase in longline effort on pelagic stocks and fisheries requires the continuation of catch and effort data being collected through the permit and logbook programs now in place under the interim emergency rule.

5.2 Catch Competition Between Longliners and Small Boat Fishermen

With the rapid growth of the domestic longline fishery in Hawaii have come concerns about the impacts of this unchecked growth. There is concern that the large increase in landings (3.0 million pounds in 1987 to 9.4 million pounds in 1989) could adversely affect the stocks of pelagic fish traditionally harvested by small-boat fishermen. There is a perception held among trollers and handliners that longline vessels intercept fish migrating to "local" waters at the expense of the smaller trollers and handline fishing vessels. While the new longline vessels are large and mobile enough to travel large distances from the Hawaiian islands, the much smaller troll and handling vessels lack such capability.

Hawaii's troll and handline fisheries are coastal-oriented and normally limit their operations to near the main Hawaiian islands. The fish come to the fishermen in this case. The NMFS currently monitors these fisheries through a shoreside monitoring program of their catches. But monitoring the coastal fisheries can only provide a slice of information on the pelagic fisheries from a very small area of much larger ranges of migratory pelagic fish. Only the longline fishery has the necessary mobility to "sample" the populations of pelagic fish throughout much of their range. Rather than wait for the fish to arrive, longliners can seek out the fish.

Obtaining good catch and effort information from longliners will enable the NMFS to test the hypothesis that longline vessels compete significantly with the catch success of trollers and handliners in local fishing grounds. Data from the longline fleet, coupled to existing data covering trollers and handline fishermen, could be used to test the validity of this commonly held hypothesis, and to develop management measures to mitigate undesirable catch competition effects and conflicts among different gear-type fishermen who apparently depend on common stocks of fish.

5.3 Conservation of Swordfish Stocks

There is also concern that the high level of intensive fishing by longliners may adversely affect Pacific swordfish stocks. In 1989, an estimated 500,000 pounds of swordfish were landed by 10 Hawaii longliners which began targeting this resource on a part time basis. As of May 1990, 46 longline

vessels landed 1.3 million pounds of swordfish, almost tripling the total swordfish landings for 1989. The Hawaii swordfish fishery is now the largest domestic supplier of swordfish to U.S. markets. The development and rapid growth of the swordfish fishery in Hawaii is due to three events: the decline of the swordfish fishery on the U.S. Atlantic coast; discovery of harvestable quantities of large and small swordfish off the Hawaiian Islands; and the successful application of U.S. East Coast longlining techniques for swordfish and tuna in Hawaiian waters including the use of monofilament line and light sticks used by local fishermen. The success of the Hawaii longline fishery is expected to spread to Guam, American Samoa, and the Northern Mariana Islands as well.

It took about 10 years to deplete swordfish stocks in the North Atlantic. There has been a decline in the average size of swordfish caught in the North Atlantic to half the size of previous years[5]. Catch rates on adult fish have dropped 80% during this same period. The decline in the catch per unit of effort (CPUE) and the decline in the number of large fish which form the adult spawning stock(s) have sparked proposals calling for great reductions in North Atlantic swordfish landings by U.S. fishermen, and other restrictive conservation measures to rebuild North Atlantic swordfish stocks. There is concern that North Pacific swordfish stocks could suffer a similar fate if the growth in longlining continues to increase at the rates of recent years. The logbook program will assist in providing data necessary to identify emerging signs of stress indicating the need for management action.

5.4 Fishery Interactions with Protected Species

Prior to the introduction of the swordfish longline fishing technique in the U.S. EEZ of the NWHI, there were no reports of interactions between protected species and longline fishing operations. In spring of 1990, at least 10 longliners were reported fishing for swordfish around the 66-Fathom Bank near French Frigate Shoals, St. Rogatien and Brooks Banks, and Gardner Pinnacle within 20-25 miles offshore, and some as close as a mile offshore. NMFS biologists believe that, beginning in late winter, swordfish migrate southeast along the NWHI from the central north Pacific area, and again up along the NWHI in the fall. Swordfish longliners are apparently following the fish as they migrate seasonally along the NWHI and, in the process, enter areas inhabited by endangered Hawaiian monk seals.

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[5]Statement of the United States Delegation, European Commission-United States Meeting on Swordfish Conservation, Brussels, July 19-20, 1990.

There have not been any observed or reported takes of monk seals or marine birds in longline logbooks and observer records to date. However, there have been observations of monk seals and birds which clearly have been involved in fishery interactions. Two monk seals have been observed with hooks in their bodies or mouths, and other monk seals have been observed with head and body wounds that are not compatible with natural causes (USFWS report to Council). Albatrosses have been found with inflicted wounds (cut beak) and paint on them. The full nature and extent of interactions, however, is unknown.

Hawaiian monk seals, marine birds, and sea turtles that occur in the NWHI and other marine waters are protected by a variety of Federal laws and treaties. Regulations now in place require reporting of interactions with monk seals or other protected species, but it appears compliance is not complete. There has been an effort to improve public and industry education and to encourage fishermen to leave any areas where interactions with such species occur. In a separate action, the Council is considering at this time emergency action to ensure greater protection of monk seals and other species which may interact with the longline fishery. Under this amendment, no longline vessel would be allowed to fish in the protected species study zone unless the owner first notified the NMFS and, if so directed, carried an observer to ensure documentation of any interactions. In addition, the amendment would continue the requirement to report any interactions in the logbooks to be maintained by the fishermen. The Council further recommends that the NMFS and the USFWS produce a video or other materials regarding procedures to protect special species and make these available to vessels operating in the study area.

See Appendices A.5 and A.6 for accounts of the status of the Hawaiian monk seal and north Pacific albatrosses.

5.5 Summary of Need

The permit requirement of this amendment would establish the population of longline vessels which would be required to submit vital catch and effort information as well as information regarding interactions with protected species to the NMFS. The permit and the required record keeping in daily logbooks provide a cost effective means for getting a large amount of very useful information for monitoring the pelagic fisheries and the status of stocks being fished. In 1989, longliners produced three quarters of the commercial landings of pelagic species in the State of Hawaii.

Catch and effort data from domestic longliners are especially needed since the Fisheries Agency of Japan quit publishing logbook catch statistics in 1980 covering the

operations of Japanese longline fishing fleets on a yearly basis. As a result, Korean and Taiwanese logbook data have become more important for the assessment of billfish and tuna stocks in the Pacific, but, the quality of Korean and Taiwanese longline statistics does not measure up to the quality of the historical Japanese data. Foreign longline logbook data have provided most of the knowledge regarding the status of the stocks of billfish and tuna in the Pacific, and data from domestic longliners are needed to help fill the data voids left by the Japanese, as well as to help improve the data sets of the Koreans and Taiwanese. The U.S.A. has the responsibility to collect catch and effort information from its own longliners and transshipping vessels and to share these data with foreign nations which have a stake in trans-Pacific cooperation in monitoring and management of migratory pelagic fish.

An amendment to the existing regulations of the FMP is needed to continue the longliner and transshipment vessel permit and reporting requirements beyond the expiration date of the emergency rule. These measures need to be continued because existing FMP regulations do not provide the means to effectively monitor and assess the impacts of the rapidly growing longline fishery on the stocks of billfish, tuna, and other pelagic species, or on protected species such as Hawaiian monk seals, dolphin, other marine mammals, turtles, and sea birds. It is also not possible, under existing regulations, to assess the impacts of the longline fishery on the troll and handline fisheries for the same species. The emergency rule is currently providing for the collection of data from longliners and transshipping vessels needed for making decisions for managing both the fisheries and the fish stocks. This amendment proposes to continue the domestic longliner and transshipment vessel data collection procedures (with some modification) initially established by the emergency rule. Logbooks must be filled out by domestic longliners and transshipping vessels regardless of whether the fish are caught within or outside of the U.S. EEZ of the Western Pacific Region. Longliners must log in all of their catches by species of billfish, tuna, and other fish and to log fishing interactions with protected species (see logbook form in Appendix A.2). (See Appendix A.3 for transshipment log form.)

6.0 ALTERNATIVES TO THE PROPOSED ACTION AND REASON FOR REJECTION

6.1 No Action

The interim emergency rule will expire under the no action alternative. Monitoring of the pelagic fisheries would fall back to existing regulations. Prior to the implementation of the emergency rule, the Council had to rely on the State of Hawaii commercial fish catch reports and the NMFS shoreside market monitoring program to provide information on the commercial fisheries for pelagic fish in Hawaii. While providing some information for estimating commercial landings, including longliner landings, these existing data collection procedures are inadequate to provide the kind of information that is needed for managing the fisheries and the fish stocks. In 1987, the landings reported to the State of Hawaii by longliners were far below the estimates of longliner landings made by the NMFS shoreside monitoring program (e.g., tenfold shortfall for bigeye tuna and sevenfold for striped marlin). The gap between reported landings and actual landings has widened even more during recent years and the gap is expected to grow even further unless Amendment 2 is implemented. Under the no action alternative, the Council and its Plan Monitoring Team would not be able to monitor, assess, or manage the pelagic fisheries even with a revised State of Hawaii Longline Catch Report form (Appendix A.7) for longliners, which is a report of trip landings, not a logbook of daily fishing effort and catches.

Also, no mechanism exists for gauging the extent of interactions between protected species and the pelagic fisheries under existing regulations.

6.2 Implement Only the Longliner Permit and Logbook Program

Under this alternative, all domestic longline and fishing and transshipping vessels would be subject to the permit and logbook requirements as proposed. However, longliners would not be required to notify the Regional Director of the NMFS and possibly carry an observer in the protected species study zone of the NWHI. The longliner logbook form includes a section for reporting of interactions with protected species, but under this alternative, the extent and accuracy of reported interactions with protected species will be limited to the extent that longline vessel operators report interactions honestly, accurately, and as frequently as they occur. No biological data (fish size, sex, sexual maturity, spawning condition, etc.) would be collected by observers on board longline vessels under this alternative, other than through strictly voluntary means.

6.3 Limit Application of the Observer Requirement to Vessels Within 12 Miles of the Selected NWHI

This alternative would be the same as the proposed action, except that only longline vessels planning to operate within 12 miles, rather than 50, of the selected Northwestern Hawaiian Islands would be required to notify the Regional Director for possible placement of an observer. This alternative would assure the collection of detailed catch and effort data, including biological samples, and of information on interactions with protected species in the waters where interactions presumably are most likely to happen. However, there would be no way to determine the full extent of interactions or to compare the nature and extent of interactions in waters close to the NWHI and waters farther removed. Only the interactions within 12 miles of certain NWHI would be documented.

Although interisland movements of monk seals have been documented in the NWHI, there is no information on the distances traveled offshore by monk seals to forage. While a Critical Habitat has been designated by the NMFS for the endangered Hawaiian monk seals, it only extends out to the 20-fm depth contour. It does not protect the Hawaiian monk seals in offshore foraging grounds. While albatrosses are legally protected throughout their range in the Pacific, there is no mechanism available under current regulations to document albatross kills incidental to longline fishing operations. The extent of longliner interactions with protected species beyond 12 miles of certain NWHI would remain unknown under this alternative.

7.0 RELATIONSHIP OF THE PROPOSED ACTION TO OTHER APPLICABLE LAWS AND POLICIES

7.1 National Environmental Policy Act

7.1.1 Environmental Assessment

The proposed amendment will not have significant impact on the quality of the human environment. The proposed action is needed to continue the longliner and transshipping vessel permit and reporting requirements beyond the expiration date of the emergency regulations. Allowing the emergency regulations to lapse would result in delayed availability of data crucial for determining whether overfishing is occurring or whether adverse effects are being suffered by any species of protected animals. Either condition could have serious ecological implications.

The NMFS prepared an environmental assessment (EA) for the emergency regulations. The Assistant Administrator for Fisheries, NOAA, concluded that there will be no significant impact on the human environment from the emergency regulations. The proposed actions will not result in impacts different from those existing under the emergency regulations. Nevertheless, an EA has been prepared to augment the EA initially developed by the NMFS. Much of this EA is a synopsis of information from the Amendment, with appropriate sections of the Amendment being incorporated into the EA by reference.

a. Purpose and Need for Action (see Amendment sections 2, 3, and 5)

The fisheries for pelagic species, and especially the Hawaii-based longline fishery, have grown extremely rapidly in recent years. Although the Council notified prospective new entrants that the Council may establish a limited entry system for the longline fishery (Federal Register, Vol. 55, No. 144, July 26, 1990, p. 30491) and that new entrants may not be assured of eligibility for permits under such a system, new vessels continue to enter the fishery. Due to inadequacies in data collection and analyses for monitoring changes in the fisheries for pelagic species and assessing impacts on the stocks and fishermen, the Council asked the NMFS to institute emergency rules to establish Federal permits and reporting requirements for domestic longline and transshipment vessels, and to require longliners to notify the NMFS if they intended to fish nearby the Northwestern Hawaiian Islands so that the NMFS could place observers aboard such vessels to document interactions between longline fishing operations and protected species. Emergency rules to those effects were implemented on November 27, 1990.

The need to continue the regulations is well established. The Council is dependent on fishery data to establish changes in the condition of stocks and the condition of the fisheries for pelagic species. The data reporting requirements and data collection programs of the State of Hawaii and American flag territories in the Pacific are not sufficient to provide the amount of detailed information needed by the Council in the necessary time frame for use in making management decisions. Also, State and Territory programs do not apply to activities of transshipping vessels working with longline vessels catching pelagic species beyond State waters. The need for data is more pronounced now than before as the Council plans to proceed with a three-year planning period to develop a limited entry program. The analysis of alternatives and evaluation of impacts of alternatives will depend on the availability of current information on catches, landings, value of landings, costs of fishing, and areas of fishing. Thus Federal rules are essential to ensure adequate data for the Council's planning process.

b. <u>Proposed Actions</u> (see Amendment section 2)

The Council proposes to maintain the current emergency requirements as follows:

1. Owners of longline vessels which harvest pelagic species in the EEZ must obtain Federal permits and maintain and file NMFS-provided logbooks of their fishing activities and catches with the NMFS upon the completion of a trip;

2. Owners of longline vessels which harvest pelagic species beyond the EEZ but will bring those fish to shoreside buyers or to transshipping vessels in the EEZ must obtain Federal permits and maintain and file NMFS-provided logbooks of fishing activities and catches with the NMFS upon completion of a trip;

3. Owners of vessels to be used in transshipping pelagic species which were taken by a vessel required to obtain a permit in 1 or 2 above must maintain and file NMFS-provided transshipment logs specifying the number of pelagic fish transshipped (by species) and their total weight;

4. Owners of longline vessels which intend to fish within a protected species study zone around the NWHI must notify the NMFS prior to departure from port so that the NMFS Southwest Regional Director can determine whether an observer should be placed on the vessel to document interactions with protected species; the size

of the study zone may be adjusted by the Southwest Regional Director, NMFS, if data support changes.

The Council is also proceeding with other actions that may further control the longline fishery (see Amendment section 3). The Council has proposed that an emergency moratorium on new entry by instituted, effective with vessels that meet specific participation eligibility criteria as of December 5, 1990. As indicated above, despite the Council's announcement of a control date for the fishery, new vessels continue entering the fishery. The emergency moratorium would be followed by a regular FMP amendment to maintain the moratorium for three years, during which the Council would evaluate a limited entry program, fishery regulations, and other measures. The Council also has established a special task force of industry representatives to see if there can be agreement on measures to prevent direct gear conflicts in the fishery. Information from the permit and logbook requirements will be crucial for the analyses needed to support these pending actions.

c. Impacts of the Proposed Actions (see Amendment section 4)

1. Biological Impacts -- The proposed action will not have any direct impacts on the stocks of fish involved or on protected species. However, the information obtained through the permit and reporting requirements will support improved stock assessments for the fish stocks and will provide a basis for determining whether there is a need for further management controls to ensure conservation of protected species. The ultimate effect will be to support management of the fishery to achieve long-term productivity from the fish stocks (to the extent possible by action governing U.S. participants in the international fisheries for these species); and long-term preservation of protected non-fish species.

2. Economic Impacts -- The immediate impact of the proposed action is to continue the recordkeeping and data submission requirements on owners of longline and transshipping vessels initially established by the interim emergency rule. These are evaluated in detail in a Paperwork Reduction Act Clearance request submitted to the Office of Management and Budget. Briefly, it is estimated that the total cost burden to industry is $50,000 per year. This is a minor cost compared to the estimated total ex-vessel revenue to the fleet of $22 million (based on 1989 estimates) from the sale of pelagic species. In the long-term, the industry may be subject to either harvest regulations, a limited entry program, or some combination. The data

collected under this Amendment will be instrumental in design of future regulations and will enable the Council to identify the most cost-effective way to protect fish stocks, maintain an economically healthy fishery, and preserve protected species in the NWHI.

3. Social Impacts -- The immediate effect of this amendment will be to demonstrate that the Council and the NMFS are concerned about the status of stocks and of the fisheries for pelagic species. This may alleviate public concern that the longline fishery is beyond control and that unrestricted fishing could exacerbate possible stock declines, interfishery competition (e.g., between commercial longline fishing and commercial and recreational troll fishing), and market disruptions. All sectors of the fishery agree to the need to obtain good data on the stocks and the fishery to ensure effective management in the future. In the long run, this amendment should result in improved data for management such that the reasons for controls will be understood by industry and the basis for selected controls will be supported. This will encourage cooperation within the industry and help ameliorate conflicts.

d. Alternatives Considered and Their Impacts (see Amendment section 6)

1. Immediate Management Measures -- The Council considered and rejected immediate imposition of such management measures as area closures, quotas, or seasonal fishing restrictions. The data on the fishery and the stocks are presently insufficient to provide a basis for selecting specific management measures at this time.

2. No Action -- The Council considered and rejected the alternative of no action. This would allow the current emergency rules to expire 180 days after November 27, 1990. It would mean that data crucial to subsequent planning and evaluation would not be available to the Council and NMFS. This, in turn, would make it impossible for the Council to determine the status of stocks and evaluate the potential impacts of new fishery management measures on the stocks and on the industry.

3. Changes in Permit and Logbook Requirements -- The Council concluded that only minor changes from the current emergency measures were warranted. These make it clearer which vessels must be covered by permits and reporting requirements. The Council considered but

concluded that major changes in data reporting requirements would result in discontinuities in the data bases which would hamper the subsequent data analysis tasks needed for developing effective management controls in the future.

e. Conclusions and Determinations

1. The proposed actions are expected to support development of management measures to ensure the long-term productivity of pelagic species stocks in the EEZ and beyond.

2. The proposed actions will have no impact on the habitat of pelagic species or other animals in the EEZ or beyond.

3. The proposed actions are not expected to have any impact on public health or safety, although information obtained as a result of the Amendment may result in better consideration of health and safety concerns in selection of fishery conservation and management measures.

4. The proposed actions will not directly affect any endangered or threatened species; however, the information obtained under this Amendment will provide a better basis than now exists for determining if special conservation and management measures are needed to give full protection to these species.

5. The proposed actions will not result in cumulative adverse impacts that could substantially affect pelagic species or any related stocks. The information obtained should provide a better basis for determining management measures that will maintain the long-term productivity of these stocks.

6. The proposed actions are not expected to generate controversy. While there is controversy concerning possible moratoria and limited entry programs for the fishery, all are agreed on the need for sound and current data on the stocks and the fishery so that action will be based on facts and not on perceptions.

7. The proposed actions will not have any effect upon floodplains or wetlands, nor upon any trails and rivers listed, or eligible for listing on the National Trails and Nationwide Inventory of Rivers.

FINDING OF NO SIGNIFICANT IMPACT -- Based on the information provided in this EA and the FMP Amendment, it is concluded that the proposed actions will not have a significant impact upon the marine or human environment. An environmental impact statement therefore is not required under the National Environmental Policy Act.

7.2 Paperwork Reduction Act

The emergency rule and this amendment are subject to the provisions of the Paperwork Reduction Act because they contain collection of information provisions. Request for approval to collect this information under the interim emergency rules were submitted to the Office of Management and Budget by the NMFS. Approval was granted (OMB No. 0648-0204 and OMB No. 0648-0214).

In designing the logbook form (Appendix A.2), fishermen were consulted to determine the method of presentation which would be least burdensome to fill out and still record the necessary catch and effort information.

7.3 Regulatory Flexibility Act and Executive Order 12291

The proposed action will not have a significant impact on a substantial number of small business entities as defined under the Regulatory Flexibility Act. There are now over 150 vessels active in the Hawaii longline fishery. Existing longline fishing vessels will not be adversely affected by this amendment to the FMP. The proposed amendment is simply for information gathering purposes and not for management or resource allocation purposes.

The economic impact of the proposed action would be substantially less than $100 million. The ex-vessel revenue generated by fish sales for the longline fleet as a whole in 1989 amounted to $22 million. The estimated cost of data collection and reporting is less than $50,000 per year -- a small amount relative to total fleet revenues and costs. For this reason, the proposed action is not deemed to be "major" under the definition of Executive Order 12291.

7.4 Coastal Zone Management Act

The Western Pacific Fishery Management Council had requested that the State of Hawaii, the Territories of American Samoa and Guam and the Commonwealth of the Northern Mariana Islands to concur with a finding that the information gathering measures of the emergency rule are consistent to the maximum extent practicable with their respective coastal zone management programs. The State of Hawaii and the Territory of Guam have concurred. A finding of consistency between this amendment and the coastal zone management programs of respective American

Pacific islands has been sent to the State of Hawaii and the Territories of Guam and American Samoa and the Commonwealth of the Northern Mariana Islands for their review and concurrence.

7.5 Endangered Species Act (ESA)

The ESA prohibits the taking of endangered species except under limited circumstances. The FMP was initially reviewed under Section 7 consultation of the ESA. A Biological Opinion was issued by the NMFS. No allowable incidental take of Hawaiian monk seals was specified in the Biological Opinion. Other than for the interim emergency rules which will expire on May 25, 1991, there are no other existing requirements either for domestic longline vessels to report interactions nor for domestic longline vessels to carry observers to document interactions between longline vessels and protected species. The proposed action imposes observer requirements, if required by the Regional Director, on fishermen to obtain accurate and detailed information on possible interactions with protected species and the fishery. Therefore, the proposed action is viewed to be fully consistent and supportive of the goals and objectives of ESA. Formal Section 7 consultations have been initiated between the Council and the NMFS for Amendment 2 to the FMP.

7.6 Marine Mammal Protection Act (MMPA)

The MMPA allows for the incidental take of marine mammals during commercial fishing operations under certain limiting circumstances. Hawaiian monk seals, being declared a depleted marine mammal, cannot be taken. The data reporting and observer requirements in Amendment 2 will have a positive impact on monk seal populations of the NWHI compared to negative impacts of the No Action alternative. Placing observers on selected longline vessels fishing in the NWHI is the most reliable means of obtaining detailed information on the nature and occurrence of interactions with Hawaiian monk seals. The observer program would allow the fishery to continue in proximity to the NWHI until a final decision on management measures is made.

7.7 Executive Order 12612

The proposed action does not contain policy with known federalism implications sufficient to warrant preparation of a federalism assessment under Executive Order 12612.

7.8 Fishery Impact Statement

The proposed action will not have a significant impact on fisheries in other Regional Councils' areas.

8.0 DETERMINATIONS

8.1 Required Provisions of FMPs

The proposed actions are simply for information gathering purposes. The actions do not change the determinations for maximum sustainable yield, optimum yield, domestic harvest, and other factors initially established by the FMP.

8.1.1 National Standards

The national standards are principles of the Magnuson Act that must be followed in developing any FMP and amendments.

(a) Standard 1. **Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.** On November 23, 1990, the Council submitted Amendment 1 to the FMP for Secretarial review. Amendment 1 includes a measurable definition of recruitment overfishing. Amendment 1 also proposes a revised definition of optimum yield and a revised set of FMP objectives to bring them into accord with the definition of recruitment overfishing. The information obtained through the permit and reporting requirements of this Amendment will support improved assessments for pelagic fish stocks and will provide a factual basis for preventing local overfishing of pelagic fish stocks in each of the Council's areas.

(b) Standard 2. **Conservation and management shall be based upon the best scientific information available.** The best information available from the data reporting and data collection programs of the State of Hawaii and the American flag territories in the Pacific are inadequate to provide the amount of detailed information needed by the Council in making management decisions. The intent of Amendment 2 is to overcome some of these inadequacies of existing State and territorial data generation systems.

(c) Standard 3. **To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.** The purpose of this standard it to induce a comprehensive approach to fishery management. The geographic scope of the fishery should cover the entire range of the stock(s) of fish, and not be constrained by political boundaries.

The species composition of landings for recent years of Hawaii-based longliners is shown in Table 1. Species of tuna account for about 60 percent of longliner landings, while billfish, mahimahi and wahoo account for about 40 percent of longliner landings. All of these species are widely distributed throughout the tropical and subtropical Pacific Ocean.

Bigeye tuna are widely distributed in the temperate and tropical waters of the Pacific between about latitude 45°S. Catch rates in the longline fishery indicate at least two east-west zonal bands of high abundance, one in the North Pacific above the Hawaiian archipelago centered at around 30°N latitude in the winter and the other in the equatorial area south of Hawaii. The stock structure of Pacific bigeye tuna is not clear. The occurrence of major spawning activity in the eastern Pacific and the simultaneous appearance of a dominant year class over a wide area support a single stock hypothesis. However, the occurrence of at least some localized spawning activity and the presence of morphological (body shape) differences in the north Pacific suggests multiple stocks [Food and Agriculture Organization (FAO), 1980].

Yellowfin tuna are distributed throughout the Pacific Ocean between approximately 45°N and 45°S latitude but are most abundant between 20°N and 20°S latitude. In the eastern Pacific, the purse seine fishery dominates the yellowfin tuna landings, whereas in the western Pacific, the longline fishery is still of the greatest importance although purse seine fishing is rapidly growing in the western Pacific. The longline fishery dominates the catches of yellowfin tuna in the central Pacific. It is assumed that the Pacific yellowfin tuna resource has separate eastern Pacific and western Pacific stocks, and possibly a third stock in the central Pacific where Hawaii is located (FAO, 1980).

Albacore tuna are cosmopolitan in temperate and tropical waters of the Pacific. Surface troll and pole-and-line fisheries for albacore exist during the warmer months in coastal and offshore waters of both the north and south Pacific. These fisheries exploit the younger fish. The older, larger fish tend to move deeper in tropical waters where spawning occurs. The larger fish are exploited by longliners. The current accepted hypothesis of albacore tuna stock structure in the Pacific Ocean is that there are at least two stocks, one or two in the North Pacific and another in the South Pacific. This hypothesis is based on evidence including: (1) Pacific-wide catch rates of longline vessels show high catch rates in the higher latitudes separated by low catch rates at the equator, and (2) albacore tagged in the North Pacific have not been recovered in the South Pacific.

Skipjack tuna occur in tropical and subtropical waters of the Pacific. Large quantities of skipjack tuna are taken by distant-water pole-and-line vessels of Japan and a small domestic pole-and-line fleet in Hawaii. Purse seine vessels of many nations catch large quantities of skipjack tuna in the eastern and western Pacific.

TABLE 1
Estimated Species Composition of Hawaii-Based Longliner Landings (in numbers of fish and percent)[1]
1987-1988

Species Category	Number of Fish		Percent of Grand Total	
	1988	1989	1988	1989
Tunas				
Bigeye Tuna	33,000	40,700	37.1	32.5
Yellowfin Tuna	12,700	20,800	14.3	16.6
Albacore Tuna	11,300	8,900	12.7	7.1
Skipjack Tuna	800	1,000	0.9	0.8
Total Tunas	57,800	71,400	65.0	57.0
Other Pelagics				
Blue Marlin	1,400	4,700	1.6	3.8
Striped Marlin	19,500	21,600	21.9	17.2
Other Billfish[2]	5,300	14,000	6.0	11.2
Mahimahi	2,000	7,700	2.3	6.2
Ono (Wahoo)	2,800	5,800	3.2	4.6
Total Other Pelagics	31,000	53,800	35.0	43.0
GRAND TOTAL	88,800	125,200	100.0	100.0
Percent Change from Previous Year		Δ+41%		

[1]Estimates are based on the shoreside sampling program of the Honolulu Laboratory of the National Marine Fisheries Service.

[2]Mostly Swordfish and some Black Marlin, Spearfish, and Sailfish.

Skipjack tuna are fairly minor incidental catches in the longline fisheries, whereas trollers catch much larger quantities of skipjack tuna compared to the longliners. The subdivisions of skipjack populations in the Pacific are apparently quite intricate. Investigations into their biochemical genetics suggest that there are at least five different stocks of skipjack tuna in the Pacific. To complicate matters, it is suspected that smaller breeding divisions exist among the subpopulations, and there are apparently also strains that remain relatively close to islands all their lives (Barchach and Matsuda, 1980).

Blue marlin distribution in the Pacific various seasonally. A high concentration of blue marlin is found in the western and central south Pacific during December to March, and another in the central north Pacific during May to October. During April to November, a high density of blue marlin is found in the equatorial region between latitude 10°N and 10°S (Rivas, 1975). In the eastern Pacific, blue marlin have been observed in relatively heavy concentrations west of 100°W longitude between 20°S and 13°N latitude (Kume and Joseph, 1969), but blue marlin are not an important item in eastern Pacific fisheries compared to striped marlin and sailfish. In the Pacific, blue marlin appear to consist of a single stock centered about the equator, with the northern and southern extent of their distribution varying seasonally (Skillman, 1989).

Striped marlin are distributed in the Pacific in a horseshoe or U-shaped band with the base of the U along the central American coast (Nakamura, 1974). The open ends of the horseshoe pattern extend to the Asian coast in the north Pacific and to Australia and New Zealand in the south Pacific. In the eastern Pacific, striped marlin range from Chile to southern California, striped marlin appear mainly between August and October. In Hawaii, striped marlin are taken in greatest numbers from fall through spring, although striped marlin are caught year round. Striped marlin may be comprised either of separate north and south Pacific stocks with possible intermixing of stocks in the eastern Pacific, or a single Pacific-wide stock. Consistent with either view is the distribution of catch rates which are consistently high in the northern central Pacific (near Hawaii), often in the southern central Pacific (frequently during the same quarter of the year), and also in eastern tropical Pacific waters on both sides of the equator (Skillman, 1989).

Swordfish occur mainly from California to Chile in the eastern Pacific, throughout the central Pacific and from Japan to Australia and New Zealand in the western Pacific. In California, swordfish are most abundant in the summer and early fall. In Hawaii, swordfish are usually most plentiful during the spring months. Virtually all swordfish caught in Hawaiian waters are

taken by commercial longliners and handline fishermen, though a few sport-caught fish are taken on bait while drift fishing at night. There is uncertainty whether there is a single stock of swordfish in the Pacific. An alternative hypothesis envisions three separate stocks as evidenced by areas of apparent high abundance: northwestern Pacific, southwestern Pacific, and eastern Pacific (Bartoo and Coan, 1989). Sosa-Nishizake and Shimizu (1990) have hypothesized the occurrence of four subpopulations of swordfish in the Pacific on the basis of seasonal concentrations of mature specimens: central north Pacific (waters around Hawaii), the Coral Sea, the area between 10° and 30°S and west of 100°W, and equatorial Pacific waters where spawning apparently occurs year round.

Mahimahi are distributed in tropical and subtropical waters of all the oceans. In the Pacific, the greatest concentrations appear to occur along the eastern and western margins. In the eastern Pacific, mahimahi are found in greatest abundance near Mexico, along Ecuador and Peru, Panama Bay and near the Galapagos islands. In the western Pacific, mahimahi are widely distributed between 46°N and 38°S latitude. The largest numbers of juvenile mahimahi are taken in the western Pacific near Taiwan and Guam, but some adult fish are also found there but catches of large adults are infrequent (Shcherbachev, 1973). Mahimahi are common in Hawaiian waters and some are found year round. However, pronounced seasonal variations in abundance of mahimahi are very evident in Hawaii, American Samoa, Guam, and the Northern Mariana Islands. No information is available for even postulating possible stock structures for mahimahi. However, Kojima (1966) stated that because the seasonal migrations of the common mahimahi in the southern hemisphere of the Pacific Ocean show a reverse tendency to that in the northern hemisphere, there are apparently at least two stocks of mahimahi in the Pacific Ocean separated by the equator.

Wahoo are widely distributed in the tropical Pacific Ocean. Wahoo appear to be year round residents in tropical waters, but they expand their range to higher latitudes during the summer months (Welsh, 1949). Surface catches indicate that wahoo associate with banks, pinnacles, and flotsam. However, tuna longline catch of domestic vessels indicate that this species is also widely distributed in oceanic waters far from shore. Nothing is known about the stock structure of wahoo in the Pacific.

Oceanic sharks are widely distributed in tropical and semi-tropical/temperate seas worldwide, and they are incidental catches of longliners, but their importance is increasing. Very little data are available to indicate the relative concentrations of individual species of oceanic sharks in different areas of the

Pacific during different times of the year. Very little is known about the stock structures of oceanic sharks in the Pacific.

It is clearly evident that each of the species taken by longliners have a range extending much beyond the U.S. EEZ of the Western Pacific Region. It is equally evident that longliners fish both within and beyond the EEZ. In 1985, when there were less than 40 longliners based in Hawaii, captains reported longlining activities up to 600 miles from Honolulu, and by 1986, the fishing range expanded to 800 miles from port for some vessels. Some vessels are now fishing 1,000 miles from port and the fishing range is only limited by the perishability or shelf life of fresh fish.

Compliance with National Standard 3 requires that domestic longliners must report the location of their longline sets and catches regardless of the boundaries of the EEZ. The nature and distribution of the migratory fishes caught by longliners requires this. The nature of longline fishing operations also requires this. Limiting reporting of fishing effort and catches just to the EEZ would be inconsistent with National Standard 3.

(d) Standard 4. **Conservation and management measures shall not discriminate between residents of different states.** Amendment 2 applies equally to all domestic longliners regardless of their state of origin.

(e) Standard 5. **Conservation and management measures shall, where practicable, promote efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.** Amendment 2 does not include any allocation measures and will not affect efficiency in the harvesting and transshipping of longline-caught fish.

(f) Standard 6. **Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.** The actions proposed in Amendment 2 are simply for information gathering purpose. Standard 6 is not germane to Amendment 2.

(g) Standard 7. **Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.** The information gathering actions proposed in Amendment 2 do not duplicate State and Territorial data collection and reporting requirements. Rather, they compliment them. It is estimated that the total cost burden to the longline fishing industry is $50,000 per year. This is a minor

- cost compared to the ex-vessel revenue of the longline fleet of $22 million for 1989.

8.2 Habitat Concerns

The habitat of the pelagic species covered by the FMP and the conditions of the habitat are discussed in Section 6.8 of the FMP. Offshore waters are essentially pristine. This amendment will not effect the habitat of pelagic fish. Habitat conditions are expected to remain favorable well into the future.

The NMFS has designated a Critical Habitat for Hawaiian monk seals which includes nearshore waters out to a depth of 20 fathoms. The Critical Habitat area is too shallow for longline fishing for pelagic fish. This amendment will not effect the habitat of the Hawaiian monk seal. Under this amendment, observers will collect information on the nature and frequency of interactions with longline gear and Hawaiian monk seals for subsequent decision on precluding and/or minimizing interactions once the extent of interactions becomes better known.

The offshore habitat of North Pacific Albatrosses is the surface waters and air space of much of the North Pacific ocean. This amendment will not adversely affect North Pacific Albatrosses or their habitats (see the Appendix A.6 for a synoptic review on North Pacific Albatrosses).

8.3 Vessel Safety

The proposed actions are not expected to affect fishing vessel safety concerns. The U.S. Coast Guard has been requested to review this draft amendment within the statutory guidelines of the Magnuson Act regarding fishing vessel safety.

8.4 Indigenous Peoples' Fishing Rights

The culture and fishing practices of native Hawaiians, Samoans, or Chamorros will not be affected by the proposed action. The use of longlines less than one (1) nautical mile in length is exempted from this amendment to the FMP.

9.0 DRAFT REGULATIONS

Part 685 --- **PELAGIC FISHERIES OF THE WESTERN PACIFIC REGION**

1. The authority citation for Part 685 continues to read as follows:

Authority: 16 U.S.C. 1801 et seq.

2. In section 685.2, the following definitions are added in alphabetical order to read as follows:

Section 685.2 Definitions.

Fishery management area means the entire range of species of tuna, billfish, oceanic sharks, mahimahi, and wahoo in the tropical and subtropical central and western Pacific Ocean.
* * * * *

Fishing trip means a period of time between landings when fishing is conducted.
* * * * *

Longline gear means a type of fishing gear consisting of a main line that exceeds one (1) nautical mile in length, is suspended horizontally in the water column either anchored, floating, or attached to a vessel and from which branch or dropper lines with hooks are attached.
* * * * *

Official number means the documentation number issued by the U.S. Coast Guard or the certificate number issued by a State or Territory or by the U.S. Coast Guard for an undocumented vessel (50 CFR 620.2).
* * * * *

Owner, as used in this part, means a person who is identified as the current owner of the vessel as described in the Abstract of Title (GC-1332) issued by the U.S. Coast Guard for a documented vessel or on a registration certificate issued by a State or Territory or the U.S. Coast Guard for an undocumented vessel.
* * * * *

Pacific Area Office means the Pacific Area Office, Southwest Region, National Marine Fisheries Service, 2570 Dole Street, Honolulu, Hawaii, 96822.
* * * * *

Protected species means an individual animal, sub-population, population or species covered by the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, or the Migratory Bird Treaty Act.
* * * * *

Harassment means any verbal or physical conduct which has the purpose or effect of substantially interfering with an observer's work performance or creating an intimidating, hostile, or offensive working environment.
* * * * *

Sexual harassment means any unwelcome sexual advance, request for sexual favors, or other verbal and physical conduct of a sexual nature which has the purpose or effect of substantially interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment.
* * * * *

Study zone means a designated area round Nihoa Island, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Reef, Midway Island, and Kure Atoll in the Northwest Hawaiian Islands.
* * * * *

3. Section 685.4 is amended by revising paragraphs (a) and (b), and by adding new paragraph (c) to read as follows:

Section 685.4 Reporting requirements.

(a) Logbooks. The operator of any vessel subject to this part must:

(1) Maintain, on board the vessel, an accurate and complete daily fishing log for each entire fishing trip or transshipment log for each transshipment operation on forms supplied by the Pacific Area Office. All information specified on the forms must be recorded within 24 hours of hauling in longline gear or day of transshipment.

(2) Submit a copy of the forms to the Pacific Area Office within 72 hours of the date of landing or transshipment unless the log forms have been collected by an employee of NMFS authorized by the Regional Director to gather such forms;

(3) Make the fishing or transshipment log available for immediate inspection upon request of an

authorized officer, or of any employee of NMFS authorized by the Regional Director to make such an inspection.

(b) Fishing information. The daily fishing log will include the following information:

(1) Name of fishing vessel;

(2) Permit number of fishing vessel;

(3) Date, time and latitude and longitude of the location at which the set of the longline is begun;

(4) Date, time and latitude and longitude of the location at which hauling of the longline is begun;

(5) Number of hooks set;

(6) Number of lightsticks used;

(7) Number of billfish, tuna, oceanic sharks, and associated fish (by species) caught and kept per day;

(8) Number of billfish, tuna, oceanic sharks, and associated fish (by species) caught and released per day;

(9) Number (by species) of protected animals (not including marine birds) sighted in the area of the gear per day;

(10) Number (by species) of protected animals released or lost alive and not apparently injured;

(11) Number (by species) of protected animals released or lost alive but apparently injured;

(12) Number (by species) of protected animals released or lost dead;

(13) Signature of the fishing vessel operator; and

(14) Date of signature.

(c) Transshipment information. The transshipment log will include the following information:

(1) Name of transshipment vessel;

(2) Permit number of transshipment vessel;

(3) Name of the fishing vessel;

(4) Radio call sign of fishing vessel;

(5) Date of transshipment;

(6) Number of days fished by the fishing vessel;

(7) Average number of hooks fished per day by the fishing vessel;

(8) General area of catch;

(9) Number of billfish, tuna, oceanic sharks, and associated fish (by species) transshipped;

(10) Total weight of fish (by species) transshipped;

(11) Signature of the transshipment vessel operator; and

(12) Date of signature.

4. In section 685.5 new paragraphs (e), (f), (g), (h), (i), (j), (k), (l) and (m) are added to read as follows:

Section 685.5 Prohibitions.

* * * * *

(e) Use any vessel to fish with longline gear in the fishery management area unless a permit has been issued for that vessel under section 685.9;

(f) Possess on board a vessel in the fishery management area any species of billfish, tuna, oceanic sharks, and associated species that were taken with longline gear unless a permit has been issued for that vessel under section 685.12;

(g) Fail to notify the Pacific Area Office within 12 hours following each fishing trip or transshipment activity as required under section 685.12;

(h) Falsify or fail to make, keep, maintain, or submit any logbook or logbook form or other record or report, required under sections 685.4 and 685.12. Permits will

not be renewed for vessels which are found not to be in compliance with the reporting requirements under sections 685.4 and 685.12;

(i) Fail to affix and maintain vessel and longline float markings, required under sections 685.10 and 685.11;

(j) Fail to notify the Pacific Area Office of intent to fish for pelagic species with longline gear within the protected species study zone off the Northwestern Hawaiian Islands as required under section 685.12;

(k) Refuse to attend an orientation meeting with the Pacific Area Office regarding procedures for protecting endangered and threatened species, marine mammals and seabirds;

(l) Refuse to carry an observer when directed to do so by the Regional Director under section 685.12;

(m) Forcibly assault, impede, intimidate, interfere with, or influence or attempt to influence an observer, or to harass (including sexual harassment) an observer by conduct which has the purpose or effect of unreasonably interfering with the observer's work performance, or which creates an intimidating, hostile or offensive environment. In determining whether conduct constitutes harassment, the totality of the circumstances, including the nature of the conduct and the context in which it occurred, will be considered. The determination of the legality of a particular action will be made from the facts on a case-by-case basis.

5. In Subpart A, new sections 685.9, 685.10, 685.11, and 685.12 are added to read as follows:

Section 685.9 Permits.

(a) General. Any vessel of the United States using longline gear to fish within the fishery management area; or transshipping fish within the fishery management area which were taken by longline gear; or landing fish in Hawaii, American Samoa, Guam and the Northern Mariana Islands which were taken by longline gear, must have a permit issued under this section.

(b) Application.

(1) An application for a permit under this section must be submitted to the Pacific Area Office by

the vessel owner or a designee of the owner at least 15 days before the date the applicant desires to have the permit be effective.

(2) Each application must be submitted on a form which is obtained from the Pacific Area Office and contain at least the following information:

(i) Type of application and whether the application is for a new permit or renewal;

(ii) Owner's name, social security number, mailing address, and telephone numbers (business and home);

(iii) Name of the partnership or corporation, if the vessel is owned by such an entity;

(iv) Primary operator's name, social security number, mailing address, and telephone numbers (business and home);

(v) Relief operator's name;

(vi) Name of the vessel;

(vii) Official number of the vessel;

(viii) Radio call sign of the vessel;

(ix) Principal port;

(x) Length of vessel;

(xi) Engine horsepower;

(xii) Approximate fish hold capacity;

(xiii) Number of crew;

(xiv) Date of construction;

(xv) Date vessel purchased;

(xvi) Purchase price;

(xvii) Type and amount of fishing gear carried on board the vessel;

(xviii) Position of the applicant in the corporation, if the vessel is owned by such an entity;

(xix) Signature of the applicant; and

(xx) Date of signature.

(c) Fees. No fee is required for a permit under this section.

(d) Change in application information. Any change in the information specified in paragraph (b) of this section must be reported to the Pacific Area Office 10 days before the effective date of the change. Failure to report such changes may result in termination of the permit.

(e) Issuance. (1) Within 15 days after receipt of a properly completed application, the Regional Director will determine whether to issue a permit.

(3) If requested, the applicant must provide documentation to establish the authority of the applicant to apply for the owner as defined in section 685.2.

(4) If an incomplete or improperly completed permit application is filed, the Regional Director will notify the applicant in writing of the deficiency. If the applicant fails to correct the deficiency within 15 days following the date of notification, the application will be considered abandoned.

(f) Expiration. Permits issued under this section expire at 2400 hours local time on December 31 following the effective date of the permit.

(g) Renewal. An application for renewal of a permit must be submitted to the Pacific Area Office in the same manner as described in section 685.9.

(h) Alteration. Any permit that has been altered, erased, or mutilated is invalid.

(i) Replacement. Permits may be issued to replace lost or mutilated permits. An application for a replacement permit is not considered a new application.

(j) Transfer. Permits issued under this section are not transferable or assignable to other vessels. A permit is valid only for the vessel for which it is issued.

(k) Display. Any permit issued under this section must be on board the vessel at all times while the vessel is fishing for pelagic species by means of longline gear or is engaged in the transshipment of pelagic species taken by longline gear. The permit shall be subject to inspection upon request of any authorized officer.

(l) Penalties. Any person committing or vessel used in the commission of a violation of the Magnuson Act or any regulation issued under the Magnuson Act, is subject to the civil and criminal penalty provisions and civil forfeiture provisions of the Magnuson Act, to Part 621 of this chapter, to 15 CFR Part 904 (Civil Procedures) and to any other applicable law. Permits will not be renewed for vessels which are found not to be in compliance with the reporting requirements under sections 685.4 and 685.12.

Section 685.10 Vessel identification.

(a) Display of official number.

(1) Each fishing vessel subject to this part must display its official number on the port and starboard sides of the deckhouse or hull, and on an appropriate weather deck so as to be visible from enforcement vessels and aircraft.

(2) The official number must be affixed to each vessel subject to this part in block Arabic numerals at least 18 inches (45.7 cm) in height for fishing vessels of 65 feet (19.8 m) in length or longer, and at least 10 inches (25.4 cm) in height for all other vessels. Markings must be legible and of a color that contrasts with the background.

(3) The official number must be clearly legible and in good repair; and

(4) No part of the vessel, its rigging, or its fishing gear shall obstruct the view of the official number from an enforcement vessel or aircraft.

Section 685.11 Longline Float Identification

(a) The official number of the vessel must be affixed on each of the deployed floats of the longline gear.

Section 685.12 Observers.

(a) The operator of a fishing vessel subject to this part shall inform the Pacific Area Office at least 72 hours (not including weekends and holidays) before leaving port of his or her intent to fish within the protected species study zones of the Northwestern Hawaiian Islands as designated and published in the Federal Register Notice by the Regional Director. The operator shall provide this notice by contacting the Pacific Area Office, telephone (808) 955-8831. The notice must include the name of the vessel, the name of the operator, the intended departure date and location, and a telephone number at which the operator or his agent may be contacted during the business day (8:00 A.M. to 5:00 P.M.) to indicate whether an observer will be required on the subject fishing trip.

(b) The initial size of the study zone is 50 nautical miles around the Northwestern Hawaiian Islands from Nihoa Island to Kure Atoll. The Regional Director of the NMFS may change the size of the study area if he determines that the fishery is or is not having or is or is not likely to have an adverse impact on any protected species. Prior to making any changes to the study zone, the Regional Director shall consult with the Council with the information and rationale to support such changes. Proposed changes in the size of the study area shall be announced through publication of a notice in the Federal Register at least thirty (30) days prior to the effective change. The information used by the Regional Director to make changes in the study zone shall be available for public review and comment in the thirty (30) day period prior to the effective date of any such changes.

(c) All fishing vessels subject to this part must carry an observer when directed to do so by the Regional Director;

(d) The Regional Director shall advise the vessel operator of any observer requirement within 72 hours of receipt of the notice, and if an observer is required, shall establish with the operator the terms and conditions of observer coverage, and time and place of embarkation of the observer.

(e) All observers must be provided with sleeping, toilet and eating accommodations at least equal to that provided to a full crew member. A mattress or futon on the floor or a cot is not acceptable in place of a regular bunk. Meal and other galley privileges must be the same for the observer as for other crew members.

(f) Female observers on a vessel with an all-male crew must be accommodated either in a single-person cabin or, if reasonable privacy can be ensured by installing a curtain or other temporary divider, in a two-person cabin shared with a

licensed officer of the vessel. If the cabin assigned to a female observer does not have its own toilet and shower facilities that can be provided for the exclusive use of the observer, then a schedule for time-sharing common facilities must be established and approved by NMFS prior to the vessel's departure from port.

Section 685.12 Notification of landings and transshipments.

The operator of a fishing or transshipment vessel subject to this part shall contact the Pacific Area Office by telephone (808-955-8831) within 12 hours following each fishing trip or transshipment, and report the name of the vessel, name of the vessel operator, date and time of the landing or transshipment at which the permitted vessel has landed or transshipped billfish, tuna, oceanic sharks, and associated species.

10. REFERENCES

Bardach, J.E. and Y. Matsuda. 1980. "Fish, Fishing, and Sea Boundaries: Tuna Stocks and Fishing Policies in Southeast Asia and the South Pacific". Geo Journal. 4.5.

Bartoo, N.W. and A.L. Coon, Jr. 1989. "An Assessment of the Pacific Swordfish Resource. In: (R.H. Stroud, Ed.) Planning the Future of Billfishes: Research and Management in the 90's and Beyond. National Coalition for Marine Conservation, Inc. Savannah, Georgia.

Food and Agriculture Organization (FAO) of the United Nations. 1980. State of Selected Stocks of Tuna and Billfish in the Pacific and Indian Oceans. Summary Report of the Workshop on the Assessment of Selected Tunas and Billfish Stocks in the Pacific and Indian Ocean held in Shimizu, Japan, 13-22 June, 1979. FAO Technical Paper No. 200. Rome.

Fougner, S. and E.T. Nitta. (No date). "Supplemental Environmental Impact Statement: Proposed Designation of Critical Habitat for the Hawaii Monk Seal in the Northwestern Hawaiian Islands." National Marine Fisheries Service. Southwest Region. Terminal Island, California.

Gilmartin, W.G. 1983. "Recovery Plan for the Hawaiian Monk Seal, Monachus schauinslandi". National Marine Fisheries Service. Southwest Region. Terminal Island, California.

Kojima, S. 1966. "Fishery Biology of the Common Dolphin Inhabiting the Pacific Ocean". Bull. Shimane Prefectural Fish. Exp. Stn. No. 1. 108p. (In Japanese, English summary).

Kume, S. and J. Joseph. 1969. The Japanese longline fishery for tunas and billfishes in the eastern Pacific east of 130°W, 1964-1966. Inter-Am. Trop. Tuna Comm. Bull, 13.

McDermond, D.K. and S.I. Feter. (In Press). "History, Status, and Conservation of North Pacific Albatrosses". In: Symposium on Status, Conservation and Ecology of Temperate North Pacific Seabirds. Canadian Wildlife Service. Victoria, British Columbia.

Nakamura, I. 1974. "Some aspects of the systematics and distribution of billfishes. In: (R.S. Shomura and F. Williams, eds.) Proceedings of the International Billfish Symposium, Kailua-Kona, Hawaii.

Rivas, L.R. 1975. "Synopsis of biological data on blue marlin, Makaira nigicans (Lapepede), 1802. In: (R.S. Shomura and F.

Williams, eds.). Proceedings of the International Billfish Symposium, Kailua-Kona, Hawaii.

Shcherfachev, Y.N. 1973. The biology and distribution of Dolphins. Translated in J. Ichthyol. 13:182-191.

Skillman, R.A. 1989. "Status of Pacific Billfish Stocks". In: (R.H. Stroud, Ed.) Planning the Future of Billfishes: Research and Management in the 1990's and Beyond. National Coalition for Marine Conservation, Inc. Savannah, Georgia.

Sosa-Nishizaki, Oscar and M. Shimizu. 1990. "Sexual Maturity of Swordfish in the Pacific Ocean During the 1968-85 Period". In: (C.H. Boggs, ed.) Proceedings of the 41st Annual Tuna Conference. Honolulu Laboratory, National Marine Fisheries Service, Adminstration Report H-90-07.

Welsh, J.P. 1949. "A trolling survey of Hawaiian waters." Territory of Hawaii, Division of Fish and Game. Progress Rep. 1(4):1-30. In: (Division of Fish and Game Special Bulletin No. 2, 1950).

Western Pacific Regional Fishery Management Council. 1990. "1989 Annual Report for the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region". Honolulu, Hawaii.

Western Pacific Regional Fishery Management Council. 1986. "Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region". Honolulu, Hawaii.

Western Pacific Regional Fishery Management Council. 1990. "Amendment 1 and Environmental Assessment: Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region". Honolulu, Hawaii.

APPENDIX A.1 LONGLINE FISHING VESSEL PERMIT

U.S. DEPARTMENT OF COMMERCE **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION** **NATIONAL MARINE FISHERIES SERVICE** **LONGLINE FISHING VESSEL PERMIT**		**PERMIT NO._____**
PERMIT ISSUED TO: (VESSEL NAME)	**Hawaiian Islands** /__/	**American Samoa, Guam** /__/
OWNER'S NAME: (Last, First, Middle)	**STREET ADDRESS CITY STATE ZIP**	
OPERATOR'S NAME: (Last, First, Middle)	**STREET ADDRESS CITY STATE ZIP**	
VESSEL DOCUMENTATION NUMBER:	**HOME PORT OF VESSEL:**	
DATE OF ISSUANCE: _____ (Month, Day, Year)	**DATE PERMIT EXPIRES:** _____ (Month, Day, Year)	
ISSUING OFFICE: National Marine Fisheries Service Southwest Region Pacific Area Office	**ISSUING OFFICER: (Signature)**	

APPENDIX A.2

DAILY LONGLINE FISHING LOG

Vessel_____ Permit No._____ Date of Haul__/__/__

Set: Time_____ Location_____
Latitude/Longitude

Haul: Time_____ Location_____
Latitude/Longitude

No. of Hooks Set_____ No. of Light Sticks Used_____ Surface Temp._____

Species	Number Kept		Number Released	
	Tally	Total	Tally	Total
BILLFISHES Marlin, Blue				
Marlin, Striped				
Marlin, Black				
Sailfish				
Spearfish				
Swordfish				
SHARKS Blue				
Make				
Thresher				
Other				
MISC. Mahimahi				
Moonfish				
Wahoo				
Other				
TUNAS Albacore				
Bigeye Tuna				
Yellowfin Tuna				
Other				

PROTECTED SPECIES INTERACTION OBSERVATION

SPECIES	SIGHTED IN AREA OF GEAR		RELEASED or LOST					
			ALIVE		INJURED		DEAD	
	Tally	Total	Tally	Total	Tally	Total	Tally	Total
Dolphin								
Monk seal								
False killer whale								
Green turtle								
Leatherback Turtle								
Albatross								
Booby								
Others								

I certify that the above information is complete and true to the best of my knowledge.

Captain _____ Date_____

APPENDIX A.3

OMB NO.
Expires:

PELAGIC FISHERIES OF THE WESTERN PACIFIC REGION

TRANSSHIPMENT LOG - LONGLINE FISHING

VESSEL_____PERMIT NO._____
(Transshipment)

VESSEL_____ RADIO CALL SIGN_____DATE_____
NO. DAYS FISHED_____ AVE. NO. HOOKS FISHED/DAY_____
GENERAL CATCH AREA_____

SPECIES	NUMBER TRANSSHIPPED	TOTAL WEIGHT TRANSSHIPPED
BLUE MARLIN	.....	.....
STRIPED MARLIN	.....	.....
BLACK MARLIN	.....	.....
SAILFISH	.....	.....
SPEARFISH	.....	.....
SWORDFISH	.....	.....
.....	.....	.....
MAHIMAHI	.....	.....
WAHOO	.....	.....
MOONFISH	.....	.....
.....	.....	.....
BLUE SHARK	.....	.....
MAKO SHARK	.....	.....
THRESHER SHARK	.....	.....
ALBACORE TUNA	.....	.....
BIGEYE TUNA	.....	.....
YELLOWFIN TUNA	.....	.....
OTHER TUNA	.....	.....

SIGNATURE_____ DATE_____
(Operator of Transshipment Vessel)

APPENDIX A.4

FEDERAL FISHERIES PERMIT APPLICATION
WESTERN PACIFIC REGION

OMB NUMBER:
Expires:

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST REGION

Mail or deliver this application to:
Pacific Area Office, NMFS
2570 Dole Street,
Honolulu, Hawaii 96822
(808) 955-8831

CALENDAR YEAR _____

- Type or print neatly in ink. See reverse for definitions.
- An incomplete or unreadable application form will be returned.
- Knowingly supplying false information for the purpose of obtaining a permit is a violation of Federal law punishable by a fine of up to $25,000 and/or imprisonment for one to five years.

[TYPE OF APPLICATION]
(Check appropriate box or boxes)

1.	LONGLINE	New /_/	Renewal /_/	Fishing /_/	Transshipping /_/						
2.	LOBSTER	New /_/	Renewal /_/	NWHI /_/	MHI /_/	AS /_/	GM /_/				
3.	BOTTOMFISH	New /_/	Renewal /_/	NWHI Mau Zone /_/	OR NWHI Hoomalu Zone /_/ (Use supplement form)						
4.	PRECIOUS CORAL	New /_/	Renewal /_/	NMI /_/							

[FISHING VESSEL OWNER INFORMATION]

NAME OF OWNER: First Last Social Security #

If the vessel is owned by a corporation or partnership, provide the following information:
Name of Corporation or Partners:

MAILING ADDRESS: Street City State Zip

TELEPHONE #: Business (area code/#) Home (area code/#)

[VESSEL OPERATOR INFORMATION]

NAME OF PRIMARY OPERATOR: (Complete only if the operator is other than the vessel's owner)
First Last Social Security #

MAILING ADDRESS: Street City State Zip

TELEPHONE #: Business (area code/#):

Home (area code/#):

NAME(S) OF RELIEF OPERATOR(S):

[VESSEL INFORMATION]

VESSEL NAME: OFFICIAL #: RADIO CALL SIGN:

PRINCIPAL PORT: LENGTH (ft.): HORSE POWER:

FISH HOLD CAPACITY (tons): CREW #: CONSTRUCTION DATE:

DATE OF PURCHASE: PURCHASE PRICE:

FISHING GEAR NORMALLY CARRIED ON BOARD THE VESSEL DURING A FISHING TRIP:
Miles of Longline - Number of Hooks -

Number of Lobster Traps -

Number of Handline Gurdies - Other -

SIGNATURE OF APPLICANT: DATE:

If the applicant is a member of a corporation that owns the vessel, indicate his/her position in the corporation:

rev.1-91:4

Definitions:

==========[TYPE OF APPLICATION]==========

NWHI - Northwestern Hawaiian Islands **MHI** - Main Hawaiian Islands

AS - American Samoa **GM** - Guam NMI - Northern Mariana Islands

NWHI Mau Zone - Area between 161° 20' and 165° W. longitude

NWHI Hoomalu Zone - Area west of 165° W. longitude

==========[FISHING VESSEL OWNER INFORMATION]==========

FISHING VESSEL - Any vessel, boat, ship or other craft which is used for, equipped to be used for, or of a type which normally used for: (a) fishing; or (b) aiding or assisting one or more vessels at sea in the performance of any activity relating to fishing, including, but not limited to, preparation, supply, storage, refrigeration, transportation, or processing.

==========[VESSEL OPERATOR INFORMATION]==========

VESSEL OPERATOR - Master or other individual on board and in charge of that vessel.

==========[VESSEL INFORMATION]==========

OFFICIAL # - Documentation number issued by the U.S. Coast Guard or the certificate number issued by a State or by the U.S. Coast Guard for an undocumented vessel.

PRINCIPAL PORT - City and state where the vessel lands majority of its catch.

LENGTH (ft.) - Registered length of the vessel to the nearest foot.

HORSE POWER - Engine horse power of the vessel.

CONSTRUCTION DATE - Year the vessel was constructed.

PURCHASE PRICE - Amount paid by the owner to purchase the vessel to the nearest hundred dollars.

CREW # - Number of persons normally on board the vessel during a fishing trip, including the deckhands as well as the operator.

==========

APPENDIX A.5

A.5.0 Status and Morality Factors of the Endangered Hawaiian Monk Seal

A.5.1 Distribution and Breeding Islands

Hawaiian monk seals are found in the NWHI. They are also seen infrequently in the water and on beaches in the main Hawaiian islands, and less frequently still at Johnston Island. Pupping occurs regularly on the islands and islets at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef, and Kure Atoll. Pupping has been intermittent during the last decade at Midway Island, and pups have been recorded from Necker and Nihoa Islands only since 1983. Nihoa and Necker Islands are probably not significant pupping sites because of the limited beach areas and rough lava beaches there which can be awash at high tide or during storm conditions. One pup was born on Kauai in 1988.

Adult females with pups prefer beaches with shallow protected waters where their pups learn to swim and feed in relative safety from sharks and strong wave and surge conditions. Nearshore protected waters provide areas which are critical for successful rearing and acclimation of pups to the ocean environment.

Adult male monk seals do not form harems like some other seals, but instead patrol sections of beaches from the water searching for receptive females. Mating has only been observed in nearshore waters. Breeding aggregations located on separate islands and atolls in the NWHI are probably fairly discreet.

A.5.2 Movement and Diet

When at the breeding islands, monk seals feed on reef fish, octopus, lobster, and eels. Studies have shown that adult male monk seals can dive down to at least 400 feet to feed. Monk seals spend prolonged periods at sea away from their home islands. While tagging studies have shown that monk seals swim from island to island in the NWHI, and at least three Hawaiian monk seals have been sighted at Johnston Island (500 miles south of the NWHI) over the past 30 years, they apparently have low migration rates between islands and a high fidelity to the islands of their birth. The causes for going to sea are not well known. The destinations, routes, and food sources available to monk seals while at sea are also unknown.

A.5.3 Beach Counts and Population Size

There have been observations of monk seals at most of the NWHI from the 19th century. Although some early counts of animals are available for some of the NWHI, the first chain-wide census was not done until 1957-58. Counts of seals on all NWHI atolls in 1982 were about 50 percent lower than the beach counts made in 1957-58. Both counts were only of hauled out seals and did not include seals which were at sea, nor were the counts corrected for seasonality. It is not possible to evaluate total monk seal population changes in earlier years from beach counts made in the 1950's and 1960's since the proportion of hauled out seals (relative to the total population) was unknown. The portion of hauled out seals varies seasonally and among atolls and direct comparisons of beach counts made during different times of the year could well lead to invalid conclusions. The population of Hawaiian monk seals has declined since the beach count surveys were initiated in 1957. Sufficient data has been collected since 1983 for the extrapolation of beach count data to population size and composition as a whole. There were an estimated 1,488 monk seals in the NWHI in 1983, and 1,718 in 1987, an encouraging increase of 230 animals. The 1987 monk seal population included 202 pups of the year.

A.5.4 Mortality Factors

Groups of adult male monk seals sometimes attack single adult females during attempts to mate. Female seals are usually severely injured during such encounters, and such episodes contribute to the mortality rate of adult females. At some locations such as Kure Atoll, Laysan Island, and Lisianski Island, adult male sales attack weaned pups, with such attacks often ending in the death of the pup. Both of these aberrant behaviors of adult male monk seals may be having a significant effect on recruitment and recovery of the population.

Shark predation is also a likely major factor in the natural mortality of monk seals, particularly among younger animals and those of all ages that are sick or injured. Monk seals have also been found entangled in discarded fishing line, trawl webbing, gillnet fragments, and other kinds of marine debris. Weaned pups and yearlings are particularly vulnerable to entanglement with marine debris because they spend a disproportionate amount of time in nearshore areas to feed, the same areas which tend to concentrate debris and webbing materials.

Although seals are easy to approach on land, repeated disturbances, even low level ones, apparently can have grave results such as premature weaning of pups, heat stress, and abandonment of preferred pupping and haul out areas. Sustained human activity on beaches used by monk seals apparently cause the seals to desert these beaches.

All of the NWHI have been occupied by people at one time or another for varying periods. Necker and Nihoa Islands, for example, show much evidence of sustained prehistoric occupation by the early Polynesians. Shipwrecked crews have spent varying lengths of time at French Frigate Shoals, Laysan, Lisianski, Pearl and Hermes Reef, Midway, and Kure Atoll. During the 18th, 19th, and early 20th century, sealers, feather poachers, guano diggers, and egg gatherers must have greatly reduced the monk seal population by taking them for food, sport, shark bait, hides, and oil, and caused the seals to abandon ancestral beaches and nearshore waters.

In a more modern-day context, Hawaii monk seal populations have demonstrated a high degree of sensitivity to human disturbances at Midway, Tern Island, and Kure Atoll. Midway Island has been under the jurisdiction of the U.S. navy since 1903. It figured prominently in World War II and was shelled and bombed by the Japanese. During the 1960's, there were as many as 3,000 naval personnel and their dependents on Midway Island. There are around 300 people on Midway now. The first permanent occupation of French Frigate Shoals occurred in 1942 when the Navy constructed an air strip on Term Island in 1942 for use in WWII, and the Coast Guard began operating a loran A station in 1944. The loran station was closed in 1979, and the U.S. Fish and Wildlife Service now maintains a few personnel on Term Island. Tern Island was also used for fishery support activities right after WWII. Long term occupation of Kure Atoll began in 1960 with the establishment of a U.S. Coast Guard Loran C station which is still operational today. Military bases and loran stations have contributed a major part of the reduction of the habitat and numbers of Hawaiian monk seals. There are now no commercial uses of monk seals and human disturbances of monk seals on the NWHI are kept to a minimum.

There are no confirmed cases of monk seals being killed or injured in conjunction with longlining operations. Longliners began targeting swordfish near the NWHI in the spring of 1990 and indirect evidence of possible interactions has emerged (see sec. 5.4). While there are unconfirmed reports of monk seals interacting with the longliner fishery for swordfish in the NWHI, the frequency and severity of interactions is not documented.

Monk seal interactions with lobster and bottomfish fisheries can also occur in the NWHI. One monk seal was accidentally entangled and killed in the mainline of a lobster trap string in 1987. Monk seals have also been observed removing catch from bottomfish gear in the NWHI.

A.5.5 Skewed Sex Ratios

The sex ratio of Hawaiian monk seals at birth is 1:1. However, there is considerable variation in the ratio of males to females in adult and juvenile age classes at some NWHI islands. For example, 1987 census counts shows that there were many more adult male monk seals on Lisianski Island than adult female seals. Necker, Laysan, and Kure Islands also had more adult male seals in 1987 (beach counts) than adult female seals, while the sex ratio at Pearl and Hermes Reef was evenly split between males and females. The original causes of the skewed ratios are not fully understood.

A.5.6 Conclusions

Through 1987, the monk seal population has shown some improvement since 1983. However, beach count data indicate a decrease in the seal population during 1989 and 1990 from the 1988 counts. The population is probably lower than it was in 1957-58 when the first chain-wide census was made. Some populations are at risk from skewed sex ratios and male aggression (Laysan and Lisianski), while others may be responding to recovery actions (Kure), and others may be at carrying capacity (French Frigate Shoals, Necker, Nihoa). French Frigate Shoals is estimated to accommodate about a half of the breeding population of Hawaiian monk seals. The sandy islets in French Frigate Shoals are particularly important habitat for seal pupping and weaning.

APPENDIX A.6

A.6.0 Status of North Pacific Albatrosses

There are allegations of albatrosses being killed incidental to the swordfish longline fishery based in Hawaii. Of the thirteen species of albatross occurring worldwide, there are found in the temperate North Pacific: The Laysan Albatross, the Black-footed Albatross, and the endangered Short-tailed Albatross.

A.6.1 Short-tailed Albatross

The historic range of the endangered Short-tailed Albatross extended from China, north to the Bering Sea and down the coast of North American to Baja, California, and the intervening area of the North Pacific. During the late 1800's and early 1900's, feather hunters slaughtered these birds by the millions throughout their breeding ranges. Egg collecting also affected these populations. By the 1940's, short-tails disappeared from the breeding islands and were though to be extinct. Nestings of this species were rediscovered on Torishima Island (Japan) in the early 1950's. The current breeding population is estimated at 85 pairs on two islands off of Japan, and birds are being sighted with regularity on other islands. The total population of the Short-tailed Albatross is estimated around 400 individuals. Single Short-tailed Albatrosses have been sighted in the NWHI since the 1970's and regularly on Midway Atoll. This species does not breed in the NWHI nor is it known to have bred in the NWHI in the past.

A.6.2 Black-footed Albatross

The range of the Black-footed Albatross covers most of the North Pacific Ocean including coastal regions. The northern limit of this species is about 55 degrees north latitude in the Bering Sea to about 20 degrees north latitude in the southern limit. This species has a tendency to be more abundant in the eastern North Pacific than the western North Pacific. The Black-footed Albatross breeds mainly on the NWHI, and Kaula Rock in the main Hawaiian islands. A few birds breed in the Izu, Bonin, and Ryukyu Islands of Japan. Breeding pairs in the Japanese islands probably number less than 1,500. The world's breeding population of Black-footed Albatrosses is probably close to 50,000 pairs, most of them nesting in the NWHI. The total population of this species is estimated at around 200,000 birds. At Midway Atoll and Tern Island, French Frigate Shoals populations of nesting pairs of Black-footed Albatross have been increasing. Populations on other major breeding islands have not been systematically counted in recent years. Numbers of this species have certainly increased from the days of the feather and egg

hunters, but the population may not have recovered to its former status.

A.6.3 Laysan Albatross

The Laysan Albatross has an estimated world population of nearly 2.5 million birds and has a breeding population of about 380,000 pairs. The Laysan Albatross breeds primarily in the NWHI. Small numbers have also recently nested on Oahu, Kauai, Niihau, and Kaula Rock. Breeding of this species was also confirmed on the Bonin Islands (Japan) in 1977, the first breeding confirmation of Laysan Albatross in the western Pacific region since this species disappeared from islands in the western Pacific in the 20th century. Laysan Albatrosses were also recorded breeding on islands off of Mexico beginning in 1986. These new breeding discoveries coupled with increased sightings of non-breeding Laysan Albatrosses on the main Hawaiian Islands and other sightings on Johnston and Wake Islands indicates an increase in the population(s) of Laysan Albatross in the North Pacific Ocean. The Laysan Albatross is predominantly a western and central north Pacific species, while the Black-footed Albatross has an eastern tendency in the North Pacific. The discovery of breeding pairs of Laysan Albatross in the eastern Pacific is an indication that the range of this species is expanding.

A.6.4 Diet

Black-footed and Laysan Albatrosses are offshore feeders. They seize their prey at the surface of the water and do not dive into the water like some other seabirds. There is considerable overlap in the diet of these two species of albatross, with squid being prey items of both. (Squid is the bait used in the swordfish longline fishery.) Squid make up a large portion of the diet of Laysan Albatross while fishes are consumed in larger quantities by Black-footed Albatross. Both species also feed on pelagic crustaceans. The eggs of flying fish, in particular, make up a large percentage of the diet in Black-footed Albatross.

The little information available on the diet of the endangered Short-tailed Albatross suggests that this species generally feeds on the same type of marine life (fish, squid, and crustaceans) as the Laysan and Black-footed Albatross, but that the Short-tailed Albatross feeds more in coastal areas favoring shallow areas along the coasts of continents.

The Laysan Albatross has a specialized adaptation for nocturnal feeding. This has been suggested as a possible evolutionary mechanism in separating the diets of the Laysan Albatross from the Black-footed Albatross which is principally a day feeder.

A.6.5 Conclusions

The future prospects for the North Pacific albatrosses are promising. Populations of each of these species are currently increasing in comparison to the decimated bird numbers around the turn of the century. During the late 1800's and early 1900's, feather hunters slaughtered albatrosses by the millions throughout their breeding islands. Over 5 million Short-tailed Albatrosses were estimated to have been taken during a 17 year period. Egg collecting also affected these populations.

The likelihood of interactions between domestic longliners and Short-tailed Albatross is remote. These endangered birds are only rarely encountered in the central North Pacific Ocean. The total population of Short-tailed Albatross is around 400 birds. Longliner interactions with the Black-footed Albatross and the abundant Laysan Albatross are much more likely than with the rare Short-tailed Albatross. The populations of Laysan Albatross (2.5 million birds) and the Black-footed Albatross (0.2 million birds) are growing, and the ranges of these two species overlap longline fishing areas.

DEPARTMENT OF LAND AND NATURAL RESOURCES

LONGLINE CATCH REPORT

DIVISION OF AQUATIC RESOURCES
STATE OF HAWAII

C-6

Name of Permittee ..... Fisherman's License No. ..... Month ..... 19.....

Name of Boat ..... F.G. No. ..... No. of Baskets Used .....

Day of Landing	No. of Days at Sea	Area of Catch	Port of Landing	AHI (Yellowfin) 003			BIG EYE (Bluefin) 006			AHIPALAHA (Albacore Tombo) 004			STRIPED MARLIN 009			BLUE MARLIN 010			SHORT-NOSE MARLIN 107		
				No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value

Day of Landing	No. of Days at Sea	Area of Catch	Port of Landing	BLACK MARLIN 108			BROADBILL SWORDFISH 011			AU LEPE (Sailfish) 012			MAHIMAHI 013			ONO 014			OTHER (Give Name)*		
				No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	No. Caught	Lbs. Caught	Value	Species Caught	Lbs. Caught	Value

BAIT REPORT

Date Caught	LOCAL BAIT: OPELU** Pounds Caught	LOCAL BAIT: Locality Caught	OTHERS: Species Bought	OTHERS: Date	OTHERS: Lbs. Bought	MACKEREL (Saba) 96: Date	MACKEREL (Saba) 96: Lbs. Bought	SMELT 97: Date	SMELT 97: Lbs. Bought	IMPORTED BAIT SARDINE 94: Date	IMPORTED BAIT SARDINE 94: Lbs. Bought	HERRING 95: Date	HERRING 95: Lbs. Bought	OTHER 92: Date	OTHER 92: Lbs. Bought

The reports contained hereon are true, correct, and complete to the best of my knowledge and belief.

Signature .....
Permittee or Authorized Agent

*If several species are taken on a trip, which are listed under "other," skip that number of lines when entering catch report for next trip.

**If opelu purchased from other fisherman write in "bought" under locality caught.

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