

Amendment 5

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

October 7, 1991

**Western Pacific Regional Fishery Management Council
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written comments from both troll and longline fishermen regarding the need for and scope of proposed closures.

A draft amendment was distributed for review prior to the August Council meeting. Both the Pelagic Advisory Panel and the public provided detailed comments on alternatives presented in this draft document.

This amendment describes the impact of proposed actions and rejected alternatives. It will be submitted to the Secretary for approval and implementation. The approval process will include publication of the proposed regulations for public review and comment.

1.3 List of Preparers

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2.0 EXISTING MANAGEMENT MEASURES

The FMP for the pelagic species of the Western Pacific was developed by the Council and its regulations were published by the NMFS at 52 FR 5987 on February 17, 1987. The regulations applied to domestic and foreign fishing for billfishes, wahoo, mahimahi and oceanic sharks, and completely prohibited drift gillnet fishing. Additional provisions provided for experimental fishing permits that would allow the harvest of management unit species.

At the request of the Council, the NMFS published at 55 FR 49285 (November 27, 1990) an emergency interim rule that placed regulatory conditions on longline vessels that included permitting and logbook requirements, and required the placement of observers if a vessel intended to fish within 50 nm of certain islands of the NWHI and was requested to do so by the NMFS Southwest Regional Director (RD). This emergency rule, which was subsequently incorporated into the FMP by Amendment 2 (56 FR 2473) was prompted by the need (1) to collect catch and effort data for the rapidly growing longline fishery to assess the impacts of the fishery on fish stocks and other fisheries and (2) to monitor the interaction between the longline fishery and protected species, including Hawaiian monk seals, sea birds and sea turtles.

Effective April 15, 1991 (56 FR 15842), the Secretary approved a request by the Council for emergency action to protect endangered and threatened species by establishing a Protected Species Zone (PSZ) in the NWHI where longline fishing is prohibited for 90 days. This emergency action has been extended for an additional 90 days and is scheduled to expire on October 13, 1991. Amendment 3 will indefinitely extend the regulations.

The rapid growth of the Hawaii-based longline fishery led the Council to request additional emergency management actions to place a moratorium on the entry of new longline vessels into the Hawaii fishery so that data collection and analyses could catch up with the growth of the fishery. This 90-day emergency rule took effect on April 23, 1991 (56 FR 14866). The regulations were modified to allow additional qualifying criteria and a one-time transfer of the limited entry permit on June 17, 1991 (56 FR 33211). The emergency rule was also extended for an additional 90 days, expiring on October 9, 1991. Amendment 4 to the Pelagics FMP will extend the moratorium for a total of three years.

Increasing gear conflicts and vessel safety concerns due to interactions between longline and small troll vessels resulted in the Council requesting emergency longline closures in the Main Hawaiian Islands. These emergency regulations became effective on June 14, 1991 (56 FR 28116) and prohibit longline fishing within 75 nm of the

islands of Kauai County³ and Oahu and within 50 nm of the islands of Maui County⁴ and the island of Hawaii. The closures have been extended for an additional 90 days and will remain in effect through December 16, 1991. The Council has requested that during the second 90 day period that exemptions be awarded to longline limited entry permit holders who meet stringent history of participation and dependence requirements. The exemptions are intended to provide some measure of relief for these permit holders who are experiencing severe economic hardships without reducing the effectiveness of area closure regulations. Exemptions will be provided for those permit holders who can document that they were owners or operators of a vessel landing fish caught with longline gear prior to 1970, that they have landed longline caught fish for at least five years since 1970, and that in at least one of those years, they can document that at least 80 percent of the fish landed were caught in the area now closed to longline fishing. This request is currently undergoing review by the Secretary.

This amendment intends to incorporate MHI longline area closures into the Pelagic FMP with some modifications to allow for exemptions and possible changes to the size of the area closures through a framework process. Longline area closures are also proposed for Guam in order to protect the local availability of pelagic stocks important to nearshore commercial, recreational and charter troll fisheries and prevent gear conflicts such as have occurred in Hawaii from arising in Guam waters.

³ *Kauai, Niihau and Kaula Islands*

⁴ *Maui, Molokai, Lanai and Kahoolawe*

3.0 RELATIONSHIP OF PROPOSED AMENDMENT TO FMP OBJECTIVES

When the FMP was amended to include a definition of overfishing, the original objectives of the FMP were also revised (55 FR 50756). The proposed management measures contained in this amendment are directly related to several of these objectives. In particular, to:

- Promote, within the limits of managing at OY, domestic harvest of the management unit species in the Western Pacific EEZ and domestic fishery values associated with these species, for example, by enhancing the opportunities for:
 - a. satisfying recreational fishing experience
 - b. continuation of traditional fishing practices for non-market personal consumption and cultural benefits,
 - c. domestic commercial fishermen, including charter boat operations, to engage in profitable fishing operations. (Objective 2)
- Diminish gear conflicts in the EEZ, particularly in areas of concentrated domestic fishing. (Objective 3)

The proposed management measures are necessary to reduce gear conflicts which have occurred in the pelagic fisheries of Hawaii and minimize the potential impact of increased longline effort on local availability of pelagic species to the troll fisheries. Such impacts are counterproductive to the objectives described above. Further, similar issues are expected to occur in the EEZ surrounding Guam as a domestic longline fishery develops. Therefore, the Council intends to institute area closures as a preventative action designed to avoid the impacts which have been observed in Hawaii and meet the objectives of the FMP.

4.0 BACKGROUND AND NEED FOR ACTION

HAWAII

4.1 Rapid Growth of the Longline Fishery

When the FMP was prepared by the Council and approved by the Secretary in 1987, the pelagic longline fishery in Hawaii had been in a decline. However, between 1987 and 1990 the longline fleet has nearly quadrupled from approximately 37 to 138 vessels. During this same period, total longline catches increased 3.4 times, from 3.9 million lb to 13.1 million lb. In 1990, harvest of principal target species were as follows: bigeye tuna, 3.4 million lb; broadbill swordfish, 3.4 million lb; and yellowfin tuna, 2.5 million lb. Total ex-vessel revenue for the longline fleet during 1990 was \$28.7 million. The three largest components of the catch contributing to the total revenue were bigeye tuna (\$11.7 million), yellowfin tuna (\$6.2 million) and broadbill swordfish (\$6.0 million).

In addition to these species, longline fishermen harvest a number of other pelagic species incidentally, some of which are important species for the recreational and commercial troll fisheries. These include blue marlin, striped marlin, albacore, mahimahi and wahoo. (See Tables 1 and 2).

Since implementation of the emergency moratorium, the NMFS has received 165 applications for limited entry permits. Permits have been issued to 151 of these applicants. These vessels range in size from 23 ft to 113 ft in length. Some of the vessels target primarily on swordfish while others concentrate on bigeye tuna and, in some cases, yellowfin tuna.

A federal permit and logbook program was instituted for the fishery in November, 1990. During the first seven months of the longline permit and logbook program (November 21, 1990 to February 24, 1991), 18% of the total longline effort took place within the current emergency action 75/50 mi closure area. However, for vessels under 50 feet in length (one standard deviation below the average vessel size), 48% of the effort occurred within the 75/50 mi area now closed to longline fishing.

4.2 Pelagic Trolling and Handline Fishery

Trolling and handline gear is employed by small-boat commercial fishermen, charterboat operators and recreational fishermen. The total number of commercial troll, charterboat and handline vessels with state commercial license is 1,879 (Table 1).

Between 1987 and 1990, troll catches decreased 16%, from 5.3 million lb to 4.5 million lb (see Table 1). In 1990, major species in terms of pounds landed were yellowfin tuna (1.2 million lb), mahimahi (1.1 million lb), bigeye tuna (0.6 million lb) and blue marlin

TABLE 1
Estimated Species Composition of Commercial Landings¹ (in 1,000 pounds)
of Longliners and Trollers and Handline Fishermen in Hawaii, 1987 - 1990

Species Category	Longline				Troll & Handline Combined			
	1987	1988	1989	1990	1987	1988	1989	1990
<u>Tunas</u>								
Bigeye	1,790	2,740	3,140	3,360	100	350	640	600
Yellowfin Tuna	580	1,310	2,160	2,500	2,740	2,630	1,090	1,210
Albacore Tuna	330	680	550	430	10	30	10	10
Skipjack Tuna	2	20	20	210	210	410	450	280
Other Tunas ³	0	0	0	-	10	-	10	20
Total Tunas	2,700	4,750	5,870	6,300	3,070	3,420	2,220	2,120
<u>Other Pelagics</u>								
Blue Marlin	110	230	770	830	840	880	1,080	560
Striped Marlin	600	1,110	1,340	1,260	90	270	180	140
Swordfish	4	620	620	3,410	60	40	40	210
Other Billfish ⁵	150	200	290	140	150	150	70	40
Mahimahi	50	40	180	390	960	580	900	1,090
Ono (Wahoo)	50	90	200	90	270	270	200	240
Other ⁶	230	320	580	660	10	40	90	50
Total Other Pelagics	1,190	1,990	3,980	6,780	2,230	2,190	2,560	2,330
GRAND TOTAL	3,890	6,740	9,850	13,080	5,300	5,610	4,780	4,450
% Change from Previous Year	+73%	+46%	+33%	+33%	+6%	-15%	-7%	-7%
No. of Vessels	37	50	80	138	1,856 ^a	1,897 ^b	1,874 ^b	1,879 ^b

¹ Estimates are based on the shoreside sampling monitoring program of the Honolulu Laboratory of the National Marine Fisheries Service (NMFS). The sample data covers a portion of the entire market, mainly from Oahu and the Big Island. The sample data are "raised to estimate State-wide quantities. These estimates are considered to be preliminary and should be used with care.
² Less than 10,000 pounds.
³ Mostly Kawakawa and Keokeo (Frigate Mackerel).
⁴ Swordfish were lumped into the "Other Billfish" category for 1987 and 1988.
⁵ Swordfish, Black Marlin, Spearfish, Sailfish.
⁶ Opah (Moonfish), Barracuda, Pomfret, Malu (Oilfish), etc.
⁷ NMFS estimates from market monitoring program and dockside counts.
⁸ Hawaii Division of Aquatic Resources records.

TABLE 2
Estimated Species Composition of Commercial Landings (in numbers of fish)¹
of Longliners and Trollers and Handline Fishermen, 1988-1990

Species Category	Longline			Troll & Handline Combined		
	1988	1989	1990 ²	1988	1989	1990 ²
<u>Tunas</u>						
Bigeye Tuna	33,000	40,700	42,500	10,400	15,200	14,300
Yellowfin Tuna	12,700	20,800	20,500	55,400	13,100	14,600
Albacore Tuna	11,300	8,900	7,000	500	400	100
<u>Skipjack Tuna</u>	<u>800</u>	<u>1,000</u>	<u>500</u>	<u>45,800</u>	<u>29,200</u>	<u>18,700</u>
Total Tunas	57,800	71,400	70,500	112,100	57,900	47,700
<u>Other Pelagics</u>						
Blue Marlin	1,400	4,700	4,200	4,400	4,100	2,100
Striped Marlin	19,500 ³	21,600	20,700	4,000	2,000	1,600
Swordfish		4,400	24,000	3	3	1,500
Other Billfish ⁴	5,300	5,600	2,200	3,400	1,800	1,000
Mahimahi	2,000	7,700	20,500	30,500	32,000	38,900
<u>Ono (Wahoo)</u>	<u>2,800</u>	<u>5,800</u>	<u>2,500</u>	<u>10,300</u>	<u>6,900</u>	<u>8,300</u>
Total Other Pelagics	31,000	52,800	74,100	52,600	46,800	53,400
GRAND TOTAL	88,800	125,200	144,600	164,700	104,700	101,100
% Change From Previous Year		+ 41%	+ 15%	-36%	-3%	-3%

¹ Number of fish were derived by dividing the weight of estimated total landings (Table 1) by the average weight of fish caught.

² Preliminary estimates. The average weights of pelagic species for the troll and handline sectors are not yet available. Numbers of fish were calculated by using the average weights for 1989.

³ Swordfish were lumped into the "Other Billfish" for longline landings in 1988 and for troll and handline landings in 1988 and 1989.

⁴ Black Marlin, Spearfish, Sailfish.

(0.6 million lb). Total ex-vessel revenues for the fleet were \$7 million with the top contributors being mahimahi (\$2.2 million), yellowfin tuna (\$1.6 million) and bigeye tuna (\$1.1 million).

The commercial troll/handline fleet is comprised of both full-time fishermen and a large number of part-time fishermen. For a portion of the part-time fishermen, fishing revenue is an important source of supplementary income. For others, selling a portion of the catch helps defray expenses for what would otherwise be principally a recreational fishery.

In addition to vessels holding commercial licenses, there are a large number of non-licensed recreational fishing boats. Based on a 1984 Council-sponsored survey and information from the State of Hawaii Department of Transportation, it is estimated that there are currently 5,000-6,000 boats engaged in recreational/subsistence fisheries for pelagic species in the State of Hawaii who do not hold commercial licenses. There is little information available on the amount of fish harvested by these fishermen.

The last sector of the troll fishery is the charterboat fishery operating in Hawaii. There are currently 139 licensed charterboat vessels. The usual custom is for the fish caught on charterboats to be retained and sold commercially by the charterboat operator.

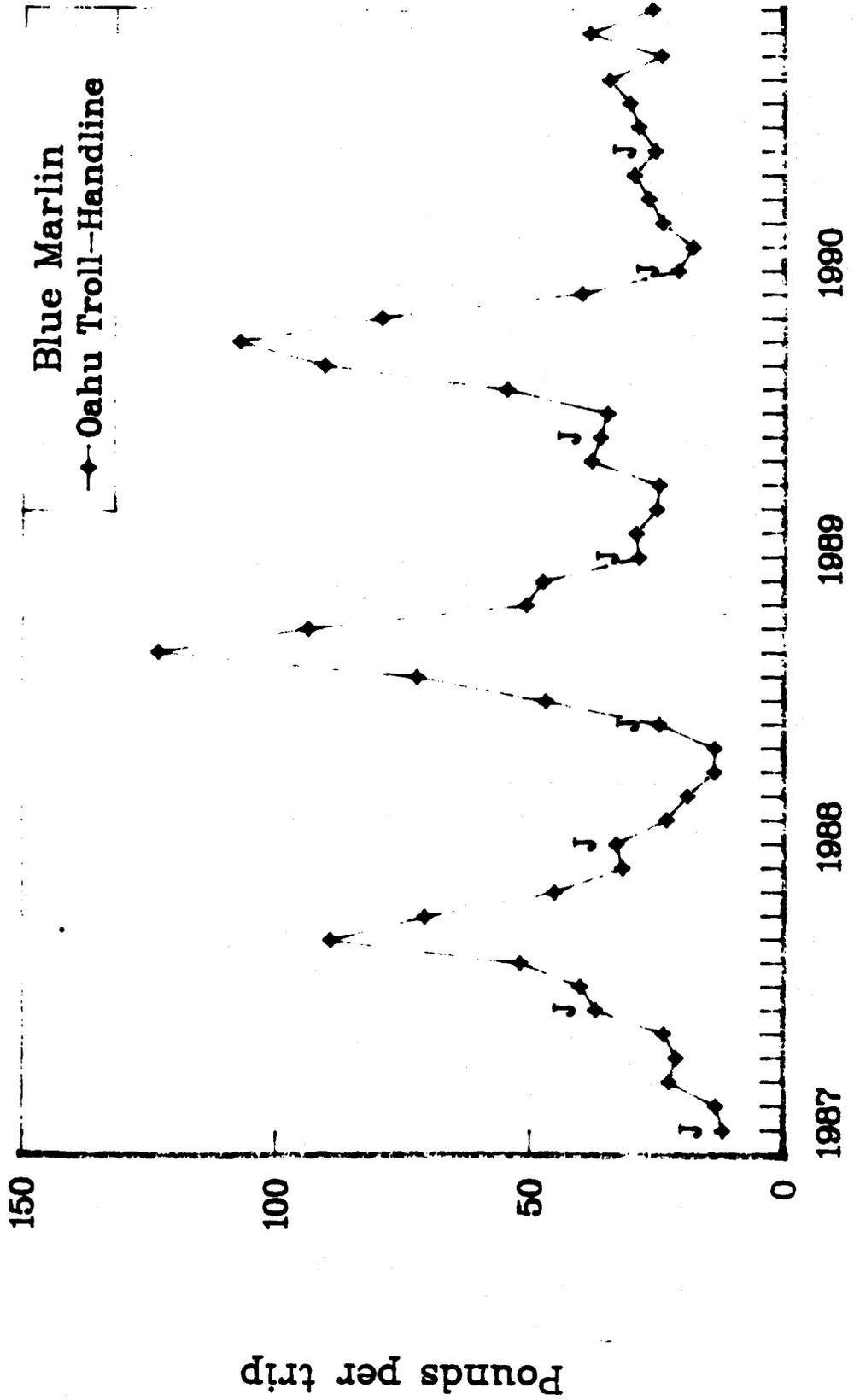
For years, Hawaii has enjoyed the reputation as one of the prime fishing areas for blue marlin among sport fishing enthusiasts. During 1990, the longline harvest of blue marlin increased 7% while commercial troll landings decreased by 42%. Oahu troll/handline monthly catch per trip information (calculated from market data) shows that the seasonal peak which has occurred annually in August and September during 1987-89 (90-125 lb per trip) did not occur in 1990, with catch rates remaining relatively stable at 25-40 lb per trip throughout the year (Figure 1). This suggests that longline harvests may indeed be negatively impacting the catches and catch rates of commercial and recreational troll fishermen.

4.3 Gear Conflicts Between Longline and Troll Fishermen

In August 1989, conflicts between longliners (many of whom had recently arrived from the Gulf of Mexico) and troll/handline fishermen, both commercial and recreational, attracted media attention. Some of these interactions, which first occurred off Waianae, Oahu, led to physical confrontations and destruction of gear. State officials met with both charterboat and small boat troll fishermen and with longline fishermen. As a result of these meetings, a voluntary "gentlemen's agreement" was reached. According to this agreement, longline fishermen would stay at least 20 mi from shore.

Not all longliners adhered to this gentlemen's agreement and allegations of gear conflicts escalated, particularly around Oahu, Kauai and Maui, as the longline fleet

FIGURE 1
 Monthly Catch Rates for Blue Marlin, 1987-1990.



grew. Tensions continued to mount throughout 1990 and the Council was increasingly concerned that continued gear conflicts might lead to violent confrontations.

In December, 1990, the Council decided to request emergency action to impose a moratorium on new entry into the longline fishery to halt growth and provide a period of stability in which to collect data and to analyze the impact of the longline fishery on the stocks, examine the interaction between various sectors of the pelagic fishery such as the longline and troll/handline fleets, and evaluate long term management alternatives. This action was implemented on April 23, 1991.

The moratorium will, by limiting the number of vessels, put a cap on the number of vessels which could have gear conflicts but does not eliminate the potential for gear conflicts with their public safety implications. Concerned about the negative social impacts and potential economic impacts of these interactions, the Council also appointed a Pelagic Task Force in December, 1990. The Task Force, comprised of longliners, commercial and recreational trollers and handliners (including charterboat representatives), was charged with developing recommendations for possible area closures to address this problem. A series of public hearings were also held throughout the Main Hawaiian Islands.

The Task Force members agreed that some type of area closure was needed but could not agree on the magnitude of such area closures. The majority of Task Force (those with troll fishing interests) recommended a minimum of 75 mi around all MHIs while longliners and fish processor representatives favored 20-30 mi.

After examining available data, recommendations of the Task Force and public input, the Council concluded that a 75 mi closure around Kauai County and Oahu and a 50 mi closure around Maui County and Hawaii were warranted. Examination of State of Hawaii catch reports show that, while the majority of commercial trolling trips are taken within 20 mi of shore, an increasing number of trips are reported at distances of 50-60 mi off Kauai, Oahu and the west coast of Hawaii, and 40 mi off Maui, Molokai and Lanai. Distances travelled, and thus the most potential for gear conflict, are greatest during the summer yellowfin season. Little information is available from the recreational fishery but an informal poll was taken of both commercial troll and recreational fishermen in early 1991. According to respondents, the maximum distances fished (95% confidence levels) were as follows: Kauai, 70 mi; Oahu, 53 mi; Maui County, 47 mi; and Hawaii, 47 mi.

The 75/50 mile longline area closure proposed by the Council to prevent gear conflicts was implemented on June 14, 1991 and has been extended until December 17, 1991.

4.4 Fishery Interaction Between Longline and Troll/Handline Pelagic Fishermen

Analyses of existing information with respect to the potential adverse impacts of the longline fishery on the CPUE and markets of troll/handline pelagic fishermen are inconclusive (Boggs, 1991). Unfortunately, State of Hawaii catch report data needed to analyze such impacts was only available through June 1990. Since that time, the longline fleet has increased from 100 vessels to about 150 vessels prior to the institution of the emergency moratorium. Gaining a better understanding of the interaction between sectors is one of the objectives of the data collection and analysis plan during the planned 3 year moratorium.

There are several studies which attempted to examine the interaction between domestic troll catch rates and foreign longline harvests within and adjacent to the EEZ during the 1960s and 1970s. Wetherall and Yong (1983) indicated that the success rate of catching blue marlin in local waters was influenced more heavily by the stock-wide abundance than by foreign fishing within the EEZ. The results of Skillman and Kamer (1985) do however illustrate a negative correlation between the abundance of blue marlin in Hawaii (as derived from catch and effort statistics from the local troll and longline fisheries) and foreign longline effort expended in the EEZ. Similar negative correlations were documented between foreign longline effort within and adjacent to the EEZ and abundance estimates of striped marlin derived from domestic longline data.

Preliminary 1990 data on blue marlin catches may indicate adverse interaction. Blue marlin is a highly valued recreational species which plays an important part in the Hawaii charterboat industry. Blue marlin is also a by-catch species in the longline fishery. During 1990, the longline harvest of blue marlin increased 7% while commercial troll landings decreased by 42%. Recently compiled Oahu troll/handline monthly catch per trip information available from the NMFS market sampling program (Pooley and Yoshimoto, 1991) shows that the season peak which has occurred in August and September during 1987-89 (90-125 lb per trip) did not occur in 1990, with catch rates remaining relatively stable at 25-40 lb per trip throughout the year (Figure 1). Analyses of similar trends in the Atlantic fishery have shown a strong correlation between longline harvests and recreational catch rates.

4.5 Financial Hardships Arising From Emergency Area Closures

The emergency longline closures have, however, placed a significant burden on smaller longliners and on those longline fishermen who have long histories of fishing close to shore. At the August Council meeting, the Council heard testimony from a number of fishermen who, with the loss of access to near-shore grounds, have been unable to continue to operate. In an effort to mitigate such economic hardships while minimizing gear conflicts, the Council has requested that exemptions be awarded to limited entry permit holders who can meet stringent participation and dependence

criteria (see Sec 2.0). Upon evaluation of information gathered on further economic hardships and on the experience gained by allowing a very limited number of exemptions during the emergency period, the Council may wish to allow for additional exemptions under the amendment. A framework process for developing and modifying exemption criteria is proposed.

4.6 Summary of Need

In Hawaii, a rapid increase in the longline fleet has lead to ever increasing gear conflicts on the fishing grounds shared by longline and troll/handline fishermen. Troll fishermen have reported longline gear entangling Fish Aggregating Devices (FADs), and longliners laying gear in areas which are heavily used by troll charterboats, commercial troll and handline fishermen and recreational fishermen. Until an emergency longline area closure was implemented, such gear interactions were allegedly negatively impacting these fishing operations. Longliners also reported a number of instances where gear had been deliberately cut and destroyed by troll fishermen. Occurrences of physical threats and harassment have been reported by fishermen from both groups.

The emergency MHI longline closures have essentially eliminated the physical gear conflicts which had accelerated the social disharmony between pelagic user groups. The closures have also contributed to public safety by minimizing the potential for physical confrontation between longline and troll/handline fishermen. In order to continue this situation, an amendment to the FMP is now needed.

While fishery interactions have not been conclusively documented there is some evidence that local availability of certain species may be impacted by the increased longline fishing effort.

The full impact of the area closures on the availability of fish to the longline and troll fleets and to the Hawaii market cannot be predicted. Modifications of the size of the area closures may be desirable when the impacts of the emergency closures has been analyzed. For this reason, the amendment also includes a framework process for modifying the size of the area closures based on analysis of the best information available.

Emergency area closures have caused significant financial hardships for some longline fishermen with long histories of participation and dependence on the fishery and who have executed their personal operations with little or no gear conflicts in the past. The emergency action exemptions were intended to mitigate some of these negative economic impacts. It is the Council's intent that exemptions provided for under the emergency actions remain in place under the amendment until such time that (1) exemption criteria are modified or eliminated through the proposed framework process

or (2) exemptions are rescinded by the Regional Director due to resulting gear conflicts.

GUAM

4.7 Description of Pelagic Fishery

Domestic Troll Fishery

The domestic pelagic fishery has been primarily a small boat troll fishery. There has been a steady increase in the number of troll vessels over the past 11 years, with current estimates standing at least 350 vessels, three times that in 1980 (115 vessels). The most rapid growth has been in the charterboat fleet which has more than doubled in the past few years.

In the early 1980s, the bulk of the troll catch (commercial and recreational combined) consisted of tunas but since 1985 PMUS (e.g., mahimahi, wahoo, blue marlin) have accounted for more than half of the harvest (Table 3). Reasons for the change in catch composition include a trend towards decreasing size and availability of yellowfin tuna, lack of interest in skipjack tuna and an increasing interest in targeting blue marlin, particularly by the charterboat fleet. Commercial landings by the small-boat troll fleet have increased steadily for the past 11 years. The majority of commercial landings are made by part-time fishermen.

Trolling effort in terms of hours and trips has increased since 1983, while hours spent per trip has decreased. This is a reflection of the growing charterboat segment of the fishery, which generally make half-day rather than full-day trips.

Annual trolling catch rates have varied widely for all pelagic species. There seems to be a general increase in the catch rate of blue marlin and a decrease since 1982 in the catch rate of yellowfin tuna. The increase in the catch rate of blue marlin may be due to an increase in charterboat activity targeting on blue marlin, a highly regarded sport fish.

Longline fishery

Prior to 1980, foreign longline vessels operated in the EEZ surrounding Guam. For the period of 1965 to 1979, total tuna CPUE for the Japanese longline fleet ranged from a low of 0.50 MT/vessel day (1971) to a high of 1.58 MT/vessel day (1977) (Polovina and Shippen, 1983). The average annual catch of blue marlin from 1973-1977 was 54 MT.

In the past, there has been very little domestic longline fishing based in Guam. One longline vessel has fished sporadically since 1989 and another vessel fished during

TABLE 3
Guam Pelagic Landings Information

YEAR	TOTAL # VESSELS	TOTAL LANDINGS (LBS)		COMMERCIAL LANDINGS (LBS)	
		ALL PELAGICS	PMUS	ALL PELAGICS	PMUS
1980	115	515,631	127,358	118,275	69,088
1981	112	450,814	285,993	162,186	81,808
1982	183	560,048	158,614	153,577	74,832
1983	240	418,222	123,189	273,120	184,812
1984	176	479,136	149,785	219,992	94,940
1985	189	614,522	332,274	243,060	137,422
1986	184	377,668	214,867	227,928	150,463
1987	184	370,586	254,725	240,790	160,299
1988	245	776,337	487,772	283,264	188,462
1989	282	501,880	314,432	242,554	175,667
1990	247	556,899	336,225	279,121	185,933

1991. Very recently, 3 other vessels, originally from the Gulf of Mexico, have arrived in Guam. There are reports that other vessels are currently in route to Guam. While catch rates in the EEZ surrounding Guam have been historically lower than surrounding areas, examination of the catch rate information provided in a SPC atlas of longline catch rates by Japanese longliners (Polacheck, 1987) indicates yellowfin catch rates during the 1970s and 80s of about 0.4 to 1.4 fish/100 hooks. The yellowfin longline catch rates derived from the federal logbook program for the Main Hawaiian Islands area were .08/100 hooks and .12 fish/100 hooks for the first and second quarters of 1991, respectively. Therefore, it is reasonable to expect that domestic longline vessels would find operation within the Guam EEZ economically feasible. Increased longline effort would lead to gear conflicts, a situation which this amendment is designed to prevent.

Guam is a major transshipment port for foreign longline vessels which do not fish in Guam's waters but which tranship tuna, primarily to Japan. A total of 333 longline vessels (219 Taiwanese and 114 Japanese) transhipped 12,702 MT of fish from Guam during 1990. Billfish account for about 10 percent of the total catch landed in Guam by foreign longline vessels (Bartram et al, 1991). However, this may underestimate the billfish bycatch rate of these operations since some of the vessels retain the billfish and transport the fish frozen when they return to their home ports or sell the fish separately through other marketing arrangements. Some of the lower quality tuna from these vessels which is not suitable for the export sashimi markets enters the domestic market in competition with troll catch fish.

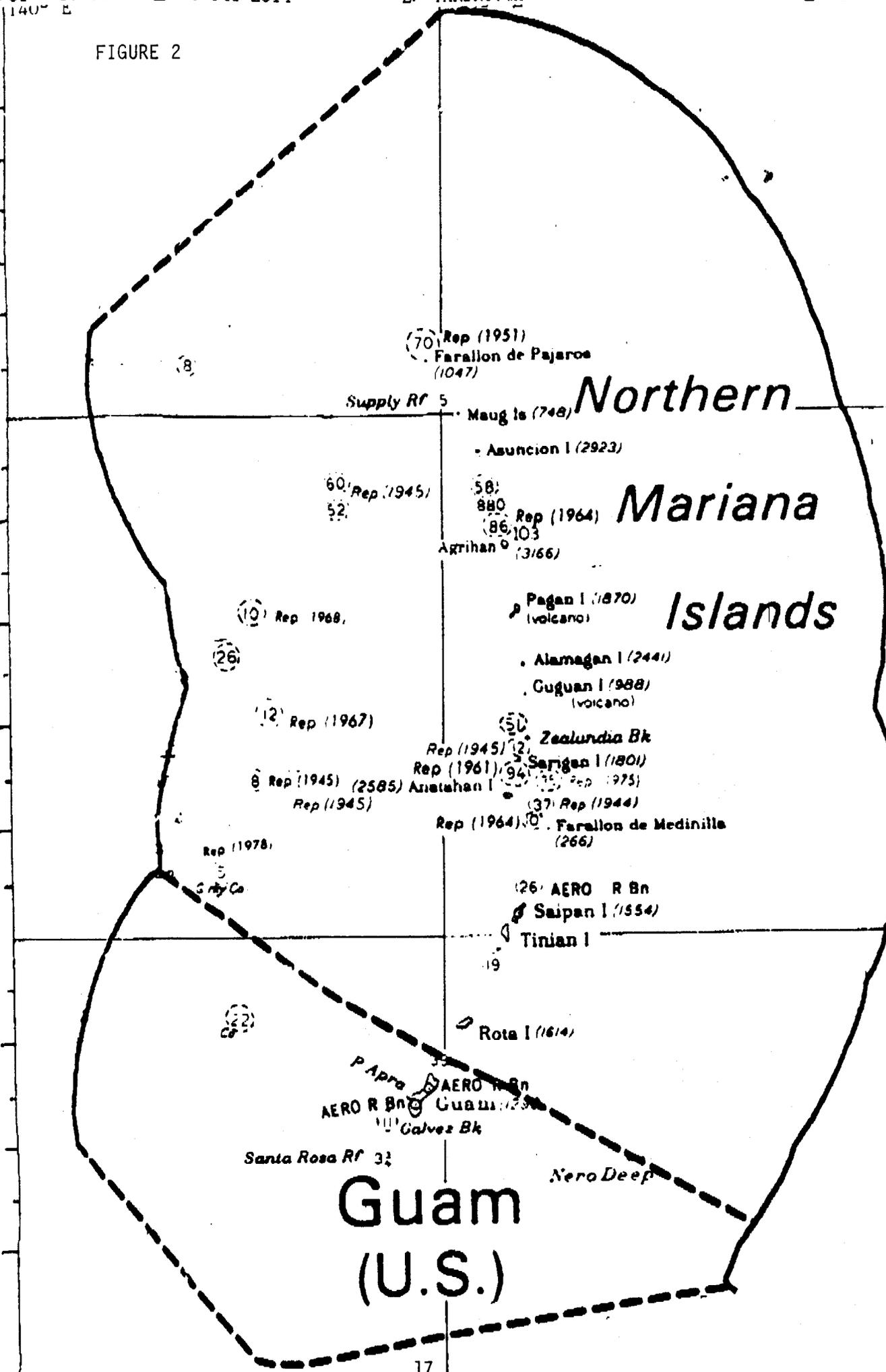
4.8 Growing Concern Over the Impact of the Longline Fishery on Troll Fisheries

Although domestic longline vessels are just beginning to home base in Guam, foreign longline fishing within 200 miles has been occurring for a number of years. The EEZ surrounding Guam is truncated both in the north and the south and encompasses only 45,400 square miles, 7 percent that of Hawaii's EEZ (Figure 2). The northern border of Guam's EEZ meets that of the Northern Marianas islands 17 miles from shore while the EEZ of the Federal States of Micronesia begins about 130 miles south of Guam. A number of the longline vessels transshipping in Guam fish in the waters of the FSM and recent reports from the South Pacific Commission show concentrated longline effort on the boundary between Guam and FSM. (See Appendix 1).

Troll fishermen in Guam have become increasingly concerned over declining catch rates and average size of some pelagic species, particularly yellowfin tuna. There is a widely held belief that, while expanding purse seine and longline fisheries outside Guam's EEZ may not be impacting the stock-wide abundance of species such as yellowfin, this same effort may be negatively affecting the local availability of pelagic species. Troll fishermen are concerned that development of a domestic longline fishery able to fish within Guam's EEZ would exacerbate the interception problem. With increased longline effort, gear conflicts such as have occurred in Hawaii have a high

FIGURE 2

23°
22°
21°
20°
19°
18°
17°
16°
15°
14°
13°
12°



probability of occurring unless preventative action is taken. Guam Advisory Panel members brought these concerns to the Council when they recommended on September 26, 1990 that a closure of 50 miles around Guam and offshore banks should be established for longline and purse seine fisheries.

The Council, concerned about unrestricted growth of a longline fleet in Guam enacted a control date of December 6, 1990 which could be used to restrict access in the future should such action be considered necessary. At the same December meeting, the Council also directed the staff to develop an area closure amendment to the FMP which would prohibit the use of longline gear within 30 miles of the 100 fathom contour surrounding Guam. The Council subsequently decided to propose a 50 mile closures, as requested by the Advisory Panel as part of this amendment.

Since June, 1991 the Guam legislature has been conducting a series of public hearings on the longline issues. A bill has been introduced (Bill 438) which would prohibit longline fishing within the EEZ of Guam and limit the number of longline vessels licensed to tranship from Guam's port to 50.

4.9 Summary of Need

With longline fisheries on the mainland declining and the implementation of the moratorium on new entry in Hawaii, domestic longline vessels are looking with interest to Guam. Several U.S. vessels from the Gulf of Mexico have recently arrived in Guam. The usual method of longlining in the Gulf is to set the gear nearshore, targeting on yellowfin tuna. Such practices could result in severe gear conflicts between longline and troll fishermen.

If no action is taken, the Council may be faced with the prospect of gear conflicts leading to confrontations between troll and longline fishermen resulting in a situation of crisis management with requests for emergency actions and hasty amendments. A preferable course of action is the proposed amendment which takes a pro-active approach of instituting a management regime in Guam which anticipates and prevents gear conflicts such as occurred in Hawaii.

The nature of interaction between competing fisheries on the same stocks is not well understood. However, there is some indications, particularly for recreationally important species such as blue marlin, that unrestricted exploitation by an expanding longline fleet may have negative impacts on the local availability of fish to the troll fleet.

Limiting the number of domestic longline vessels through a licensing program has been suggested by the Guam Department of Commerce. Other Guam agencies and members of the legislature have favored prohibiting longline fishing entirely. The Council has been working with these groups to develop a rationale approach to

management through the Council system, thereby avoiding potential state-federal conflicts and promoting optimal use of the resource. The experience in Hawaii has indicated that physical separation of gear types can minimize the risk of gear conflict and may also assist in preserving the local availability of important pelagic troll species.

5.0 PROPOSED ACTIONS AND IMPACTS

5.1 Proposed Actions

HAWAII

- (1) Prohibit fishing for pelagic species with longline gear within 75 nm of the islands of Kauai County⁵ and Oahu and within 50 nm of the islands of Hawaii and Maui County⁶.
- (2) Provide a framework process for modification of the size of area closures. This framework establishes an administrative procedure by which the Council and NMFS may make regulatory adjustments governing the boundaries of the longline prohibited area around the main Hawaiian Islands. This framework procedure for this action is illustrated in Figure 3.

A. Annual Adjustment of Area Closures

The effectiveness of the area closures will be reviewed each year as part of the annual review of the pelagic fisheries. Information on the number of permitted longliners, longline and troll catch and effort by area, alleged area conflicts, and related factors will be provided as part of the annual report prepared by the Plan Team. The Council will review this information and any other available information and will assess whether any modifications to the area closures are needed.

If so, the Council will recommend appropriate changes (increasing or decreasing the size of the closure area) to the Regional Director, documenting the rationale for the recommendation.

If the Regional Director concurs with the Council's recommendation and determines that a change in area closures is necessary and appropriate, he shall initiate rulemaking to carry out the change. If the Regional Director does not concur, he will provide the Council with a rationale for his denial.

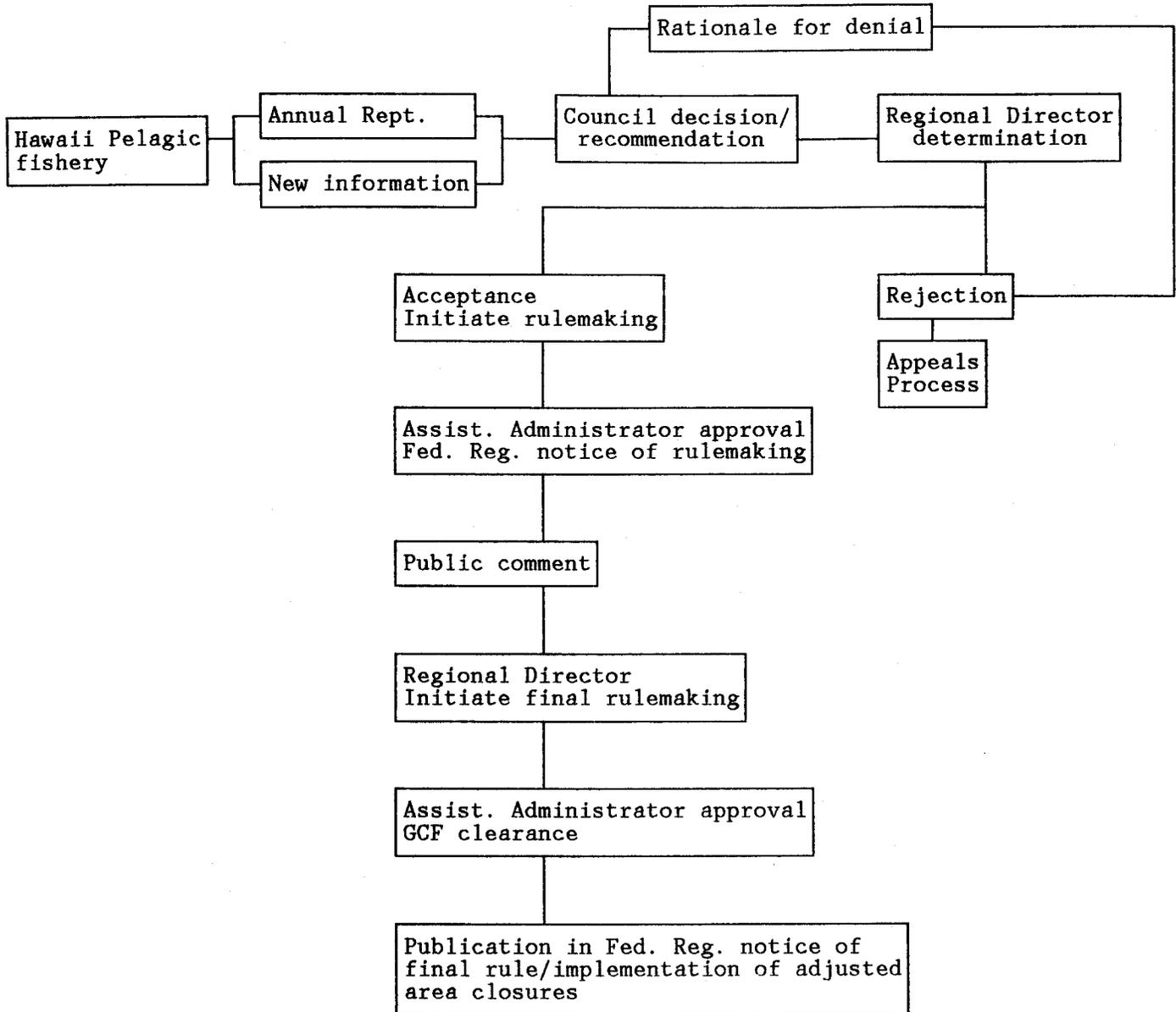
B. In-Season Adjustment of Area Closures

The Council or the Regional Director may initiate a change in area closures at any time if new information becomes available which indicates that a change is warranted.

⁵ *Islands of Kauai, Niihau and Kaula*

⁶ *Islands of Maui, Molokai, Lanai, Kahoolawe*

FIGURE 3
 ADMINISTRATIVE FRAMEWORK
 FOR ADJUSTING LONGLINE AREA CLOSURES



If the Council initiates an in-season adjustment, a notice will be given to affected parties prior to the decision making meeting, that a change is to be considered and public comment is solicited. Based on new information received and public input, the Council may recommend appropriate changes to the Regional Director. If the Regional Director concurs with the Council's recommendation, he shall initiate rulemaking to carry out the change. If the Regional Directory does not concur, a rationale for denial will be submitted to the Council.

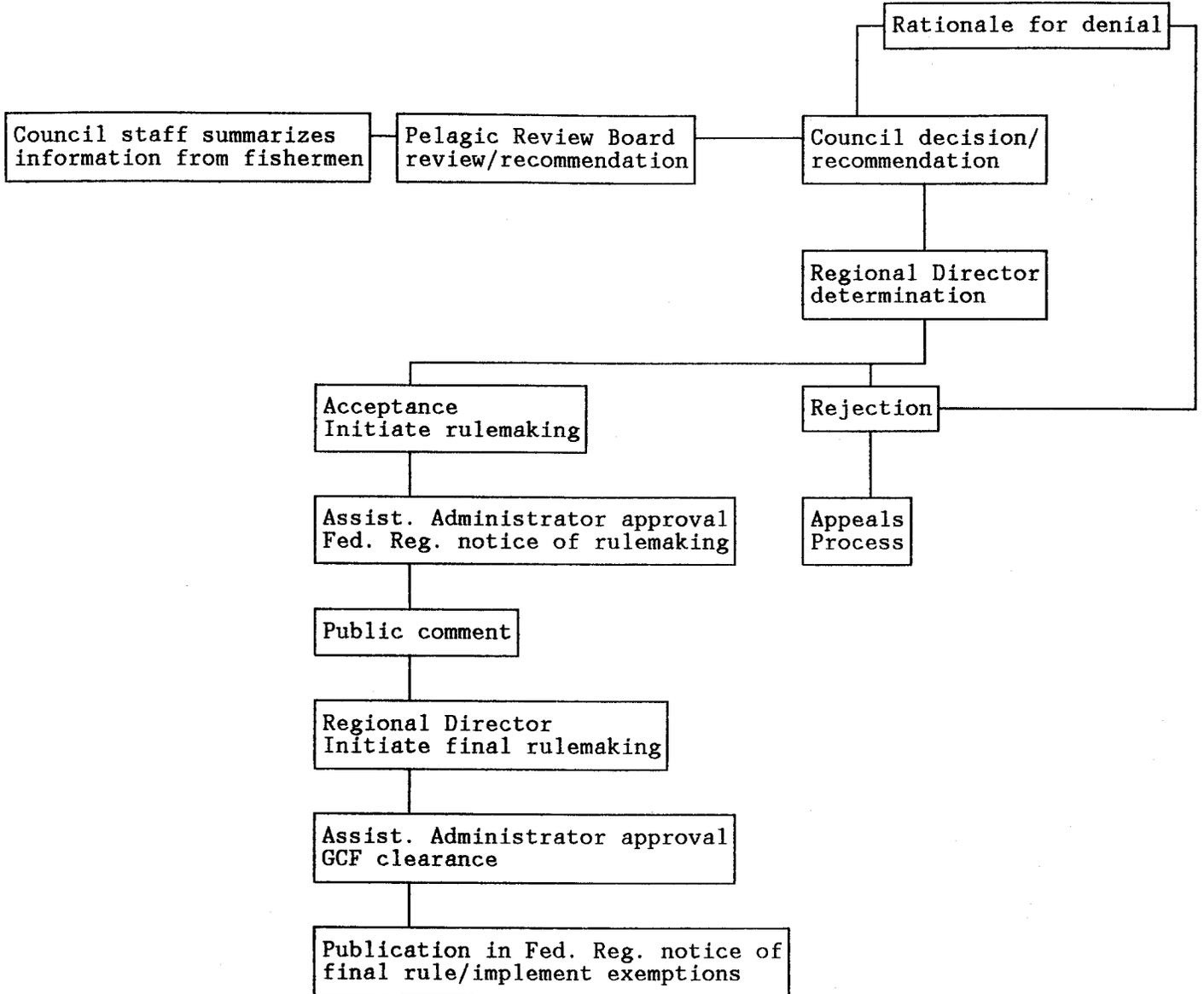
Between meetings the Regional Director may determine, based on new information, that an in-season adjustment is necessary. At that time, after consultation with and concurrence by the Council, he may initiate rulemaking to carry out the change.

- (3) Provide a framework process for providing exemptions for longline vessels whose owners have a history of dependence on the fishery and have experienced extreme economic hardship as a result of the area closures. The exemptions which have be allowed under the emergency action will remain in place until modified by the framework procedure or unless rescinded by the Regional Director due to resulting gear conflicts. This framework establishes an administrative procedure by which the Council may make regulatory adjustments governing the issuance of exemptions for area closures. The framework procedure for this action is illustrated in Figure 4.

The Council staff will summarize information provided by all longline permit holders who believe that they have experienced extreme hardship as a result of the imposition of the 75/50 mile MHI longline closures and wish to be considered for an exemption. This information, along with the impacts of providing limited exemptions during the emergency period, will be reviewed by the Pelagic Review Board (PRB). The PRB will recommend to the Council, (1) whether exemptions should continue to be allowed, and , if appropriate, (2) qualifying criteria on which to base exemptions. Criteria may be more or less restrictive than those used under the emergency regulations and may contain criteria based on factors other than historical participation and dependence such as size and mobility of vessel.

The Council will review PRB's recommendation, as well as input from other advisory groups and the public, and may recommend to the Regional Director that exemptions be allowed, based on specific criteria. The recommendation will be accompanied by a rationale for the exemptions including a description of how the selected criteria reflect the consideration of the following factors:

FIGURE 4
 ADMINISTRATIVE FRAMEWORK
 FOR MHI LONGLINE AREA CLOSURES EXEMPTIONS



1. Present participation in the fishery
2. Historical practices in and dependence on the fishery
3. Economics of the fishery
4. Capability to fish in other fisheries
5. Cultural and social framework
6. Enforcement considerations
7. Other relevant factors.

If the Regional Director concurs with the Council's recommendation, he shall initiate rulemaking to carry out the change. If the Regional Director does not concur, he will provide the Council with a rationale for his denial.

GUAM

- (4) Prohibit taking of pelagics species by longline gear within 50 nm of the 100 fathom contour surrounding Guam, its offshore banks and fish aggregation devices in place at the time of implementation of this amendment.
- (5) Provide a framework procedure, identical to that described for Hawaii, for modification of the size of area closures.

4.2 Impacts of Proposed Actions

HAWAII

5.2.1 Biological Impacts

The long term impacts of the proposed area closures, are probably negligible on PMUS stocks throughout their range. The harvest in the EEZ surrounding Hawaii makes up only a small portion of total harvest of PMUS throughout the Pacific Ocean and, thus, the overall biological effect of closing a portion of the EEZ to longlining would most likely be minimal.

The impacts of area closures on protected marine mammals would be positive, especially for the endangered humpback whales. The area around Molokai, Maui, Lanai and Kahoolawe makes up the primary breeding and calving grounds for the whales. During the winter of 1991, a whale was observed swimming off Lanai-Kahoolawe trailing some monofilament line. The proposed closures would prohibit longline fishing activity around the nearshore areas within the area where humpback whales congregate during winter and spring, reducing the potential for their entanglement with longline gear.

5.2.2 Economic Impacts

Again, due to the lack of conclusive information regarding the interaction between longline and troll/handline fisheries on the pelagic fisheries of Hawaii, the economic impacts on various user groups and coastal economies are impossible to predict. Nonetheless, in addition to reducing costs associated with gear conflicts, there may be a beneficial effect (compared to no action) in terms of maintaining a higher abundance of these species (e.g., blue marlin) within the 75/50 mi closed area and preventing localized overfishing both in the short and long term. Such a beneficial impact has yet to be conclusively documented but available data did not include the time period when the fleet was growing rapidly.

There has been documentation of increases in striped marlin catch rates by charterboats off Baja, California after the Mexican government banned the directed longline fishery for striped marlin. In the Atlantic, inverse relationships have also been observed between levels of longline activities and recreational marlin catch rates (Berkeley, 1989). If similar relationships hold true in the Hawaiian fishery, the continuation of the emergency action closures might result in increased catch rates and total harvest by the commercial and recreational trolling fisheries, including the charterboat industry.

A 1984 NMFS administrative report (Samples et al., 1984) estimated that in 1982, the charterboat fleet (119 vessels compared to 139 vessels currently) generated \$8.1 million in total revenue plus an additional \$8 million in indirect and induced sales. A companion report (Samples and Shug, 1985) estimated that charter patrons in 1984 spent \$6 million in charter fees alone and an additional \$39.4 million in expenditures indirectly related to charterfishing as a vacation or leisure activity. Reports from the charterboat industry indicate that recent declines in marlin catches have negatively impacted the demand for charterboat fishing. If blue marlin and other species become more locally available to the troll/handline fisheries within the closed area, the charterboat industry as well as the troll/handline recreational and commercial sectors of the pelagic fisheries may benefit economically.

The primary purpose of this amendment is to implement area closures large enough to prevent gear conflicts between pelagic user groups. Without sufficiently large area closures, gear conflicts will continue to result in some economic losses to both the troll and longline fleets. Some longline fishermen fishing close to shore have experienced gear losses from deliberately cut lines and buoys. Troll fishermen have been hindered in their fishing activities at times around FADs and other heavily utilized areas by interference with longline gear.

The 75/50 mile closures initially proposed are designed to fully encompass the range of troll fishing vessels. According to State of Hawaii catch and effort reports, the number of license holders reporting some catch outside of 20 miles from shore has

fluctuated since FY86, reaching a high of 80 in FY90 (Table 4). The number of license holders reporting catch further than 50 miles has been minimal, ranging from 6 in 1986 to 3 in 1990. However, this data includes only those troll fishermen who have reported commercial landings. No catch and effort information exists for the recreational fishery but an informal poll was taken of both commercial troll and recreational fishermen in early 1991. According to respondents, the maximum distances fished (95% confidence levels) were as follows: Kauai, 70 mi; Oahu, 53 mi; Maui County, 47 mi; and Hawaii, 47 mi.

The closures do, however, impose costs on the longline fleet. Longline fishermen who, in the absence of area closures, would fish closer to shore due to traditional fishing practices, constraints due to the size of vessel (e.g., fuel or hold capacity), or lower operating costs must locate fishing grounds further offshore.

The magnitude of the financial hardship experienced by longline fishermen as a result of the area closures is influenced by the ability of fishermen to locate lucrative fishing grounds outside of the closed areas. Operating costs increase with increased travel time to fishing grounds. Exploratory fishing has a cost associated with it and if stocks tend to congregate close to shore during certain months, fishing further offshore may not result in profitable catch rates.

If area closures result in significantly reduced longline landings without an accompanying increase in troll harvests, Hawaii fish processors and wholesale dealers may also be negatively impacted because of a lack of fish to supply local market demand. Since the imposition of the emergency area closures, landings of local longline fish, particularly yellowfin tuna, have declined. While it is difficult to determine how much the area closures have contributed to this decline, local fish dealers have experienced increased costs and reduced revenue.

Closures expansive enough to spatially separate the gear types while minimizing disruption of fishing patterns are most beneficial. The proposed framework mechanism is designed to adjust the size of the area closures if necessary as more information on the impacts and effectiveness of the area closures becomes available. If troll effort increases in the future and troll fishermen modify their operations to fish further from shore or if further analysis shows that longline effort is negatively impacting the catch rates of troll fishermen then larger area closures may be warranted. Alternatively, evidence of unanticipated economic disruption to the longline fleet and processing and marketing sectors of the fleet may require reductions in area closures to mitigate hardships. The framework process allows for modification based on new information and full public review.

Smaller longliners and longliners with traditional fishing patterns nearshore may be adversely impacted by the proposed area closures. For example, for the past 5 years 10-11 vessels and 13-23 vessels have reported harvesting at least 80 percent of their

Table 4
 HDAR TROLL/HANDLINE LICENSE HOLDERS REPORTING CATCH
 BEYOND 20 AND 50 MILES FROM SHORE

FISCAL YEAR ¹	TOTAL # OF LICENSE HOLDERS REPORTING	# REPORTING CATCH BEYOND 20 MILES	# REPORTING CATCH BEYOND 50 MILES
1986	1206	73	6
1987	1341	59	4
1988	1326	45	5
1989	1346	65	4
1990	1405	80	3

¹ Fiscal Year begins in July of the previous year and runs through June of the current year. For example, FY86 includes reports from June, 1985 through July, 1986.

catch within 20 and 50 miles of shore, respectively (Table 5). At the August Council meeting, testimony was received by a number of longline fishermen who have experienced economic hardship since the emergency area closures have not allowed access to near-shore grounds. A limited number of exemptions have been requested for the emergency closure period which will continue under the amendment unless modified through the framework procedure or rescinded because of resulting gear conflicts. These exemptions provide a mechanism to mitigate some of the financial hardship while continuing to minimize gear conflicts.

As part of the request for extension of the emergency closures the Council developed a set of criteria which would exempt a small number longline vessel owners who were being prevented from fishing in their traditional grounds and who were unable to make high enough catches to cover their fishing costs outside the closed areas. The criteria chosen emphasized a very long history of participation and documentation of dependence on near shore grounds as reflected by the percentage of catch which had historically originated from now closed areas. The intent was to use the 90 day emergency period as a trial for such exemptions and provisions were included so that the exemptions could be rescinded if gear conflicts occurred.

The emergency exemption criteria will most likely result in fewer than 5 exemptions, restricted by location, being awarded. The Council has requested that permit holders who may not meet these criteria but believe that they have experienced hardships warranting exemptions to provide information regarding their history of participation and dependence on the near-shore fishery and other factors affecting their ability to fish further from shore.

The Council, with initial review by the Pelagic Review Board, plans to examine this information, and the experience gained from emergency exemptions, and any other data available at the December Council meeting. The exemption framework process would allow exemptions to be used to mitigate economic hardships while minimizing gear conflicts. The number of exemptions which can be allowed must take into consideration enforcement costs as well as the risk of gear conflicts. Should the Council decide to modify exemption criteria, selection of criteria will reflect consideration of the following factors:

1. Present participation in the fishery
2. Historical practices in and dependence on the fishery
3. Economics of the fishery
4. Capability to fish in other fisheries
5. Cultural and social framework
6. Enforcement considerations
7. Other relevant factors.

TABLE 5
 HDAR LONGLINE LICENSE HOLDERS REPORTING
 MORE THAN 80 PERCENT OF THEIR CATCH
 WITHIN 20 AND 50 MILES FROM SHORE

FISCAL YEAR ¹	TOTAL # OF LICENSE HOLDERS REPORTING	# REPORTING AT LEAST 80% OF THEIR CATCH WITHIN 20 MILES	# REPORTING AT LEAST 80% OF THEIR CATCH WITHIN 50 MILES ²
1986	20	11	13
1987	16	10	11
1988	19	11	11
1989	52	10	14
1990	80	10	23

¹ Fiscal Year begins in July of the previous year and runs through June of the current year. For example, FY86 includes reports from June, 1985 through July, 1986.

²Includes those vessels which report at least 80 percent of their catch within 20 miles of shore.

Publication of the criteria will be accompanied by a description of how each of these factors were considered.

5.2.1 Social Impacts

The proposed area closures will aid in reducing social disharmony between participants in the longline and troll fisheries. This social disharmony negatively impacts the Council's ability to work with all user groups to develop long term management regimes of benefit to the fishery as a whole.

The proposed framework procedure for exemptions allows a mechanism to alleviate hardships caused by denying access to traditional grounds to longliners who have historically fished near-shore.

5.3 Vessel Safety Considerations

Area closures which reduce the opportunity for physical confrontation between longline and troll/handline fishermen will contribute to public safety. While safety considerations may limit the ability of some vessels for continued participation in the fishery, vessel size alone has not been the determining factor in near-shore fishing. Between November 18, 1990 and June 28, 1991, 52 percent of the effort of longline vessels under 50 feet in length occurred outside the 75-50 mile closure area. Vessel characteristics will be considered during the development of exemption criteria.

GUAM

5.4 Biological Impacts

Impacts would be similar as those discussed above for Hawaii. The Pacific-wide stock of blue marlin is considered overfished. When the Pelagic FMP was developed, no TALFF was recommended for blue marlin but a 23 MT reserve for incidental catch was suggested. The average annual catch (44 MT) by Japanese longliners between 1975-1979 was almost twice that amount and was taken into an average of 592 vessel days. This also resulted in a catch on a per mile EEZ basis equivalent to that in Hawaii in recent years. Even if catch rates have declined, an equivalent amount of fishing pressure on the stock could be exerted by a handful of domestic longline vessels. The proposed area closures would limit the fishing grounds of longline vessels which may assist in preventing a decline in the local availability of blue marlin and other stocks important to the troll fisheries.

5.5 Economic Impacts

The total number of Guam troll vessels have been estimated to be about 350 or about 6 percent that of the estimated Hawaii combined recreational and commercial fleet

(6,000). While the total number of troll vessels located in Guam is considerably smaller than in Hawaii, the EEZ surrounding Guam is also only 7 percent that of Hawaii. This ratio is about the same as that of the size of the EEZs of the respective areas.

The proposed area closures would reduce the risk of gear conflicts with the associated economic losses for this fleet and may avoid decreases in local availability of pelagic stocks caused by longline fishing pressure.

The developing Guam charterboat fishery depends upon local availability of blue marlin. Although Guam is not well known for large fish, big-game fishermen seeking glamour could be attracted by the possibility of setting light tackle world records for blue marlin and other species. There is some indication from the Atlantic and from recent catch statistics in Hawaii that increases in incidental longline harvests of blue marlin is correlated with declining blue marlin catch rates for troll fisheries in adjacent waters. While total catch in Hawaii is greater than in Guam, on a per square mile of EEZ basis Guam trollers have harvested an equivalent amount of blue marlin and Hawaii trollers in recent years. Emergency actions were implemented in Hawaii in part due to concerns about impacts on blue marlin stocks when longline catch levels were about equivalent to foreign harvests in the EEZ of Guam during the late 1970s on a per mile of EEZ basis. An maximum of 847 vessel days were exerted by the foreign fleet to obtain such total landings (Polovina and Shippen, 1983). Therefore, 4 domestic vessels fishing 200 days per year would equal the foreign effort experience in the peak year of this period.

Until very recently, there was no domestic longline fleet based in Guam. Therefore, the economic hardships caused by the loss of traditional fishing grounds which have occurred in Hawaii would not be a factor in Guam. Newly arrived vessels are sufficiently large and well-equipped to be able to fish beyond the proposed closed areas. Catch rates have generally been greater in areas surrounding Guam such as the FSM. However, to fish in the FSM will require that the longline vessel pay for access to these grounds.

5.6 Social Impacts

The ocean and its resources play an important role in the lives of the people of Guam. About one in 350 people in Guam owns a boat used in fishing. Fishing provides a source of supplemental income, as well as providing recreational activity and food. Assuming that two third of troll fleet sells at least a portion of their catch, the average ex-vessel revenue per boat for 1990 would be about \$2,000 or 25 percent of the per capita income.

Imposing area closures at the stage of initial development of a domestic longline fishery may well prevent the severe social disruption and potential for violent confrontation which occurred when local troll fleets became impacted in Hawaii.

5.7 Vessel Safety Considerations

Area closures will prevent the possibility of gear conflicts with their safety implications from arising in Guam. The longline vessels which are arriving in Guam to participate in the domestic fishery have transitted the Pacific Ocean and have the capability to fish safely outside of the proposed area closures.

6.0 REJECTED ALTERNATIVES

HAWAII

Three alternatives were considered but rejected for the following reasons:

(1) No Action. The Council concluded the "no action" alternative was not acceptable. Status quo would only serve to increase the potential for gear conflicts which hinder fishing activities, result in loss of gear and even contribute to situations where violent confrontation may occur between longline and troll fishermen. Clearly, such incidences would disrupt the social and economic stability of Hawaii's fisheries and deny the optimal development and management of the resources under the purview of the Council. This is contrary to the goals and objectives of the FMP management plan as well as the Magnuson Act.

(2) Implementation of Smaller Area Closures (e.g., 20 mile closure). The initial area closure encompasses the known range of all troll fishermen and provides a "buffer zone" which may aid in improving troll catch rates if some degree of fisheries interaction does exist. A closure of 20 miles would not eliminate gear conflicts since a number of trollers regularly fish 30 miles and beyond. Also, the State of Hawaii has a Fish Aggregating Device (P Buoy), especially popular with charterboat captains, located off the tip of Penguin Banks, approximately 26 miles from Honolulu Harbor.

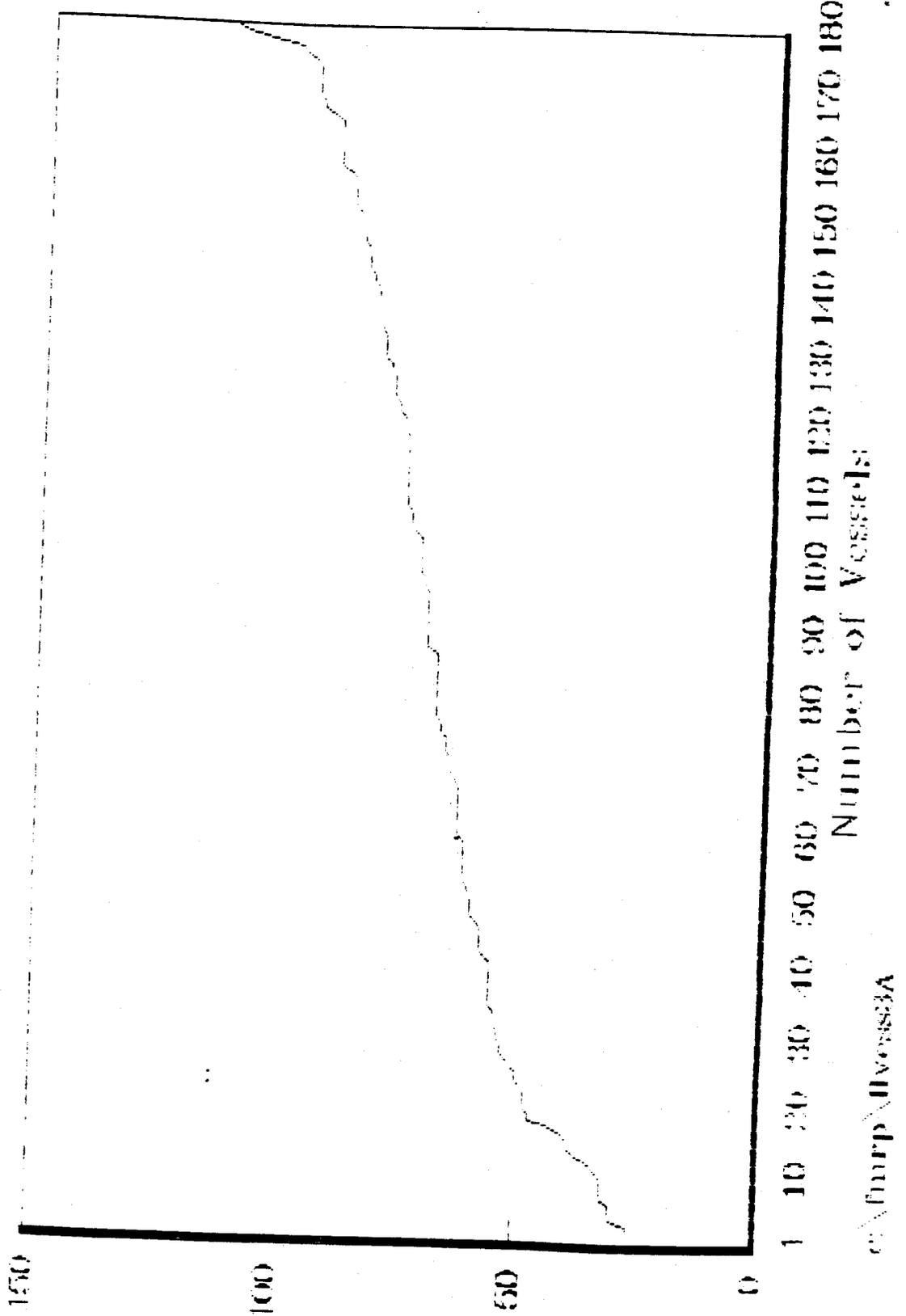
The Council recognizes however, as the impact of the closure begins to be analyzed, modification may be desirable. Therefore, the framework procedure for altering the size of the area closures has been proposed.

(3) Exempting small vessels from area closures. The vessels holding federal longline permits range in length from 23 to 113 feet (Figure 5). While there is no clear division of the fleet by size, there are 27 permits issued for vessels under 50 feet in length, one standard deviation smaller than the average vessel. Above 50 feet, the number of vessels rise rapidly with each incremental increase in length. For example, there are approximately 55 vessels 60 feet or less in length. (Sixty feet is the size of vessel to which bottomfish permit holders are allowed to upgrade without restriction due to safety considerations.)

During November 18-June 28, 1991 a total of 135 vessels reported longline fishing. Out of a total of 7731 sets, 1403 (18%) occurred in the zone now closed by emergency action. During the same time, nine vessels under 50 feet in length reported 48% (114 sets) of their effort within the 75/50 mile zone (Table 6). Therefore, while size of vessel may be one of the factors determining where a longline vessel operates, it is not the most important one. If exemptions are allowed under the amendment a number of variables such as length of participation, dependence on the fishery and other factors must also be taken into account.

FIGURE 5

Vessel Length (FL) Hawaii Longline Fleet, Permit Information July 1991



LENGTH

Table 6
 Hawaii Longline Fleet
 Operations In/Out 75/50 mile zone, Main Hawaiian Islands
 November 18, 1990 - June 28, 1991

	Number of Vessels	Number of Sets	Sets <u>In</u> 75/50	Sets <u>Out</u> 75/50
Fleet	135	7731	1403	6328
Length <= 50 ft.	9	238	114	124
Hull = Wood or Fiberglass	28	1181	254	827
Small <u>and</u> Wood/Fiber-glass	8	205	111	94
Small <u>or</u> Wood/Fiber-glass	29	1214	257	977

In addition, if vessels were exempted on the basis of size alone, some permit holders might choose to replace their vessel with a smaller one, increasing the chance for gear conflict.

GUAM

(1) No Action. This alternative would not contribute to responsible management since it would not prevent gear conflicts which have a high probability of occurring if newly arrived domestic longline vessels are allowed to fish in the proposed closed areas. Without longline area closures, gear conflicts such as have occurred in Hawaii, with their associated negative economic and social impacts are expected to occur.

(2) Imposition of Smaller Area Closures. The Council discussed imposing closures of 50 nautical miles around the island of Guam only. This would however only leave a 10 mile buffer zone around important offshore banks located about 40 miles from Guam. These banks are frequently used by both recreational and commercial troll fishermen and are particularly important to the developing charterboat fleet. Due to both interception concerns and potential gear conflicts, the Council decided to initially impose closures of 50 miles around these banks also. The effectiveness and impacts of the closures will be evaluated on an annual basis and if new information indicates that a modification of the area closed to longline fishing is appropriate, the amendment provides for a framework procedure for adjustment.

7.0 RELATIONSHIP OF AMENDMENT 5 TO OTHER APPLICABLE LAWS AND POLICIES

7.1 Administrative Procedure Act

The Council's proposed rule will be published for public comments after the NMFS receives the amendment and regulations. At this time, The Secretary has not determined that the amendment is consistent with the national standards, other provisions of the Magnuson Act, and other applicable law. The Secretary in making that determination, will take into account the data, views and comments received during the comment period.

7.2 Coastal Zone Management Act

The Council has determined that this rule will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal zone management programs of Hawaii and Guam. This determination has been submitted for review by the responsible state agencies under Sector 307 of the Coastal Zone Management Act.

7.3 Regulatory Flexibility Act and Executive Order 12291

The economic impacts of the proposed actions would be substantially less than \$100 million. The ex-vessel revenue generated from the pelagic fisheries of Hawaii in 1990 was approximately \$37.4 million, while Guam's total pelagic ex-vessel revenue was \$421,241. For this reason the proposed actions are not deemed to be "major" as defined under Executive Order 12291. The economic consequences of the proposed actions and major alternatives have been discussed in Sections 4 and 5. A summary of these impacts is provided below.

Potential impacts of imposing area closures compared to taking no action at this time (status quo alternative)

Commercial troll/handline fleets:

Area closures will benefit these fishermen by preventing loss of fishing opportunity due to interference with longline gear set in areas heavily used by troll fishermen and eliminating the risk that longline gear might wrap around important Fish Aggregating Devices (FADs). Available data does not establish a direct relationship between longline harvests and troll catch rates but data from the time of highest longline effort was not available at the time of analysis. If fishery interaction does exist, prohibiting longline fishing in the area where the troll fishery occurs could lead to increased local availability and hence increased harvests for this sector of the fishery.

Longline fleets:

The impact on these fishermen will depend on the ability of vessels to find alternative grounds. State of Hawaii data from FY 1990 shows that 43 percent (34 vessels) of the longline vessels reporting harvested at least 50 percent of their catch within 50 miles of shore, while 26 vessels (32 percent) reported 80 percent of their catch originating from grounds within 50 miles of shore.

Vessels with long histories of dependence on near-shore grounds or vessels with limited fuel and hold capacities will most likely assume the greatest burden of the proposed regulations. These impacts will be greater in Hawaii than in Guam since there is no "traditional" fleet in Guam which is being displaced because of the proposed regulations and the few vessels which have arrived are large enough to have transitted the Pacific to base their operations in Guam. The exemption framework procedure may assist in mitigating some of these negative economic impacts.

The proposed area closures will increase the operating costs such as fuel costs and, depending on the location of grounds outside the 75/50 mile closure area, may decrease the number of actual fishing days during a given trip due to increased transit time.

The area closures will benefit longline vessels by reducing the risk of gear loss, including intentional destruction of longline lines and buoys by troll fishermen.

Processors/Wholesalers:

These sectors of the fishery could be negatively impacted the combined troll and longline harvests decline as a result of the area closures. With the advent of the increased longline effort, local fish dealers developed expanded market for Hawaii pelagic fish. If supply drops and the demands of these markets cannot be supplied on a consistent basis with Hawaii fish, dealers may substitute local fish with imports from elsewhere in the Pacific or supply less fish at higher prices. Imports have generally been lower priced but also of lower quality than fish caught by Hawaii-based boats. Lower quality fish represented as Hawaii fish could have a negative impact on the demand for Hawaiian tuna and other pelagic species.

If, however, longline vessels are able to find alternative productive grounds further from shore the impact would be minimal. The experience gained during the emergency closures and during initial implementation of closures under the amendment will provide more information on actual impacts. The framework procedure for adjusting the size of area closures based on new information provides a mechanism to minimize the negative impacts of the closures.

Supply services:

A number of other businesses supplying gear, fuel, ice and other supplies to both the troll and the longline sectors of the industry. Expenditures by recreational and troll fishermen benefiting from the area closures will positively impact the suppliers of those services. Longline suppliers may experience some losses if area closures result in less trips during the times when fish are not readily available outside of the closed areas.

7.4 Endangered Species Act

The impacts of the proposed action on protected marine mammals, especially the endangered humpback whale would be positive. There have been reports of interactions between longline gear and humpback whales around the four islands (Molokai, Maui, Lanai and Kaho'olawe) which make up the primary breeding and calving grounds for the whales. The removal of all longline fishing activities around the nearshore areas within the area where humpback whales congregate would reduce the potential for their entanglement with longline gear.

7.5 Marine Mammal Protection Act

The pelagic fisheries of Hawaii fall into Category 3, meaning that fishermen must report interactions with marine mammals, but are not required to obtain exemption certificates in order to fish. The proposed actions will be beneficial in protecting marine mammals (see above).

7.6 National Environmental Policy Act

The Council prepared an environmental assessment (EA) for the interim regulations which established emergency 75/50 mile closures in the Main Hawaiian Islands. That EA concluded that there will be no significant impact on the environment and was the basis for a Finding of No Significant Impact.

For Hawaii, the amendment differs from the emergency actions only in that framework procedures for modifying the size of area closures and developing exemption criteria have been included. These framework procedures are designed to allow adjustments in a timely manner which would mitigate unforeseen impacts on the human environment based on new information and provide for more optimal use of the resource.

Thus, the proposed action:

- is expected to support maintenance of the long term productivity of the pelagic management unit species in the EEZ;

- is expected to support the establishment of measures which may be necessary to conserve protected marine animals, especially the endangered humpback whales, in the Main Hawaiian Islands;
- is not expected to have any impact on ocean or coastal habitats of public health. It will contribute substantially to public safety by minimizing the potential for physical confrontation between longline and troll/handline fishermen;
- is expected to support the development of management and enforcement programs such as aerial surveillance and monitoring programs using transponder technology that will have generally beneficial impacts on the domestic longline fishery and other fishery sectors;
- is expected to reduce in the short and long term the degree of controversy and conflict in the Hawaiian longline and troll/handline fisheries through rational management approach with full public participation; and
- will not have any effect upon flood plains or wetlands, nor on trial and rivers listed, or eligible for listing on the national Trails or Nation-wide Inventory of rivers, respectively.

Based on the information provided in the EA for the emergency action, in the supplemental EA prepared for the Guam proposed actions and in this amendment, the Council concludes that the proposed actions will not have a significant impact upon the marine or human environment in Hawaii. In the Council's view, an EIS is not required under the National Environmental Policy Act.

The EA which was prepared for the emergency action and a supplemental EA discussing the Guam proposed actions is attached.

7.7 Paperwork Reduction Act

This amendment does not contain any collection of information requirement. Information collected previously under a separate request for information will be used in determining exemption criteria. A request for clearance to collect that information is currently under review by the Office of Management and Budget.

7.8 Executive Order 12612 (federalism)

The Council has not identified any federalism issues relative to the action proposed in this amendment. The affected states (State of Hawaii and Territory of Guam) have been closely involved in developing proposed management measures and the principal state official responsible for fisheries management have not expressed federalism-

related opposition to adoption of this amendment. The view of the Council, therefore, is that preparation of a federalism assessment is not necessary.

7.9 Executive Order 12630

The Council has determined that the actions proposed in this amendment will not significantly affect the use of any real or personal property.

7.10 Indigenous Peoples' Fishing Rights

There is no formal agreement between the US government and the indigenous peoples of the areas of concern (Hawaii and Guam) that allocates preferential fishing rights to native people. The Council is however, currently examining the legal and political case for granting such rights and intends to develop an amendment to the FMP to address this specific issue. At present, amendment 5 may negatively impact the traditional fishing practices of certain native Hawaiian fishermen unless these fishermen are awarded exemptions through the framework process.

8.0 DRAFT REGULATIONS

For the reasons set out in the preamble, 50 CFR 685 is amended as follows:

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 §685.2, effective from [Insert date 90 days from date of filing for public inspection at the office of the FEDERAL REGISTER], new definitions for "Guam longline fishing prohibited area", "Hawaii longline fishing prohibited area", and "Main Hawaiian Islands" are added, in alphabetical order, to read as follows:

§685.2 Definitions.

* * * * *

Guam longline fishing prohibited area means the waters within 50 nm of the 100 fathom contour and offshore banks surrounding the Territory of Guam, and waters within 50 nm of fish aggregating devices located at the following positions:

- 1. 13°43'32" N, 144°45'00" E (Ritidian FAD)
- 2. 13°35'30" N, 144°45'30" E (Haputo FAD)
- 3. 13°31'42" N, 144°43'30" E (Hospital Point FAD)
- 4. 13°20'30" N, 144°36'30" E (Facpi FAD)
- 5. 13°14'30" N, 144°36'30" E (Cocos FAD)

Hawaii longline fishing prohibited area means the waters within 75 nm of the Islands of Oahu, Kauai, Niihau, and Kaula, and the waters within 50 nm of the islands of Hawaii, Maui, Kahoolawe, Lanai, and Molokai, as measured from the baseline from which the seaward boundary of the State of Hawaii is defined.

Main Hawaiian Islands means the EEZ of the Hawaiian Islands Archipelago lying to the east of 161o West longitude.

* * * * *

3. In §685.5, new paragraph (u) is added to be effective from [Insert date 90 days from date of filing for public inspection at the office of the FEDERAL REGISTER], to read as follows:

§685.5 Prohibitions.

* * * * *

(u) Fish with longline gear within the Guam longline fishing prohibited area and Hawaii longline fishing prohibited area in the Main Hawaiian Islands as defined in §685.2 of this part, unless an exemption has been provided under §685.25 of this part.

4. In Subpart B, a new section §685.24, effective from [Insert date 90 days from date of filing for public inspection at the office of the FEDERAL REGISTER], is added to read as follows:

§685.24 Changes to longline fishing prohibited areas, procedures.

(a) The initial size of the Hawaii longline fishing prohibited area is 75 nm of the Islands of Oahu, Kauai, Niihau, and Kaula, and the waters within 50 nm of the islands of Hawaii, Maui, Kahoolawe, Lanai, and Molokai; the initial size of the Guam longline fishing prohibited area is 50 nm of the 100 fathom contour and offshore banks surrounding the Territory of Guam, and waters within 50 nm of fish aggregating devices located at the following positions:

1. 13°43'32" N, 144°45'00" E (Ritidian FAD)
2. 13°35'30" N, 144°45'30" E (Haputo FAD)
3. 13°31'42" N, 144°43'30" E (Hospital Point FAD)
4. 13°20'30" N, 144°36'30" E (Facpi FAD)
5. 13°14'30" N, 144°36'30" E (Cocos FAD)

as defined in §685.2.

(b) Annual adjustment. (1) Each year, the Council will consider the annual pelagics fisheries report, prepared by the plan monitoring team, recommendations of the Pelagic Review Board, Advisory Panel, Scientific and Statistical Committee, and input from the public to assess the need for changing the size of the Hawaii and Guam longline fishing prohibited areas.

(2) If changes are needed, the Council will advise the Regional Director in writing of its recommendation.

(3) Following a review of the Council's recommendation and supporting rationale, the Regional Director may:

(i) reject the Council's recommendation, in which case written reasons will be provided by the Regional Director to the Council for the rejection; or

(ii) concur with the Council's recommendation that it is consistent with the goals and objectives of the FMP, the national standards, and other applicable law, and recommend that the Assistant Administrator publish a notice in the Federal Register of any preliminary changes to the longline fishing prohibited areas. A 30-day period for public comment will be afforded. After consideration of public comments, the Assistant Administrator may publish notice in the Federal Register of any final changes to the longline fishing prohibited areas.

(c) In-season adjustment. (1) The Council or Regional Director may consider at any time a change in size of Hawaii and Guam longline fishing prohibited areas if new information becomes available which indicates that a change is warranted.

(2) If the Council determines that a change is needed, it will hold public hearings at a time and place of the Council's choosing to discuss the new information. The Council may convene the Pelagic Review Board and Advisory Panel to provide advice prior to taking action. If changes are needed, the Council will advise the Regional Director in writing of its recommendation. The Regional Director will review the Council's recommendation and follow the procedures set forth in paragraph (b)(3) of this section.

(3) If the Regional Director determines that a change is needed, he, after concurrence by the Council, will recommend that the Assistant Administrator publish a notice in the Federal Register of any preliminary changes to the longline fishing prohibited areas. A 30-day period for public comment will be afforded. After consideration of public comments, the Assistant Administrator may publish notice in the Federal Register of any final changes to the longline fishing prohibited areas.

5. In Subpart B, a new section §685.5, effective from [Insert date 90 days from date of filing for public inspection at the office of the FEDERAL REGISTER], is added to read as follows:

§685.25 Exemptions for longline fishing prohibited areas, procedures.

(a) A person may apply for an exemption permitting that person to use longline gear in one or more portions of the Hawaii longline fishing prohibited area who can document that he or she:

- (1) currently holds a limited entry permit under §685.15;
 - (2) was the owner or operator of a vessel that made landings of management unit species taken on longline gear prior to 1970 from the longline fishing prohibited area;
 - (3) was the owner or operator of a vessel that made landings of management unit species taken on longline gear in at least five (5) years since (and including) 1970 in the longline fishing prohibited area; and,
 - (4) was the owner or operator of a vessel that made at least 80 percent of its landings of longline-caught management unit species in any single year in a specific portion of the longline fishing prohibited area.
- (b) A person seeking an exemption from the Hawaii longline area closure must submit documentation to demonstrate that he or she meets all of the above criteria to the Pacific Area Office at least 15 days before the desired effective date of the exemption.
- (c) A person obtaining an exemption will be permitted to fish only in that specific portion of the longline fishing prohibited area which the person can document as the source of landings under §685.25 (a)(4).
- (d) The Regional Director may revoke exemptions awarded under this part if he finds that exemptions are resulting in gear conflicts with non-longline gear in the longline fishing prohibited area that would be likely to continue if no action were taken.
- (e) The Council will consider information provided by persons with limited entry permits, issued under §685.15, who believe they have experienced extreme financial hardship as a result of the Hawaii longline area closure and recommendation of the Pelagic Review Board to assess whether exemptions to the Hawaii longline fishing prohibited area should be continued to be allowed, and, if appropriate, qualifying criteria on which to base exemptions.
- (1) If exemptions are needed, the Council will advise the Regional Director in writing of its recommendation including criteria by which financial hardships will be mitigated while retaining the effectiveness of the longline fishing prohibited area.
 - (2) Following a review of the Council's recommendation and supporting rationale, the Regional Director may:

(i) reject the Council's recommendation, in which case written reasons will be provided by the Regional Director to the Council for the rejection; or

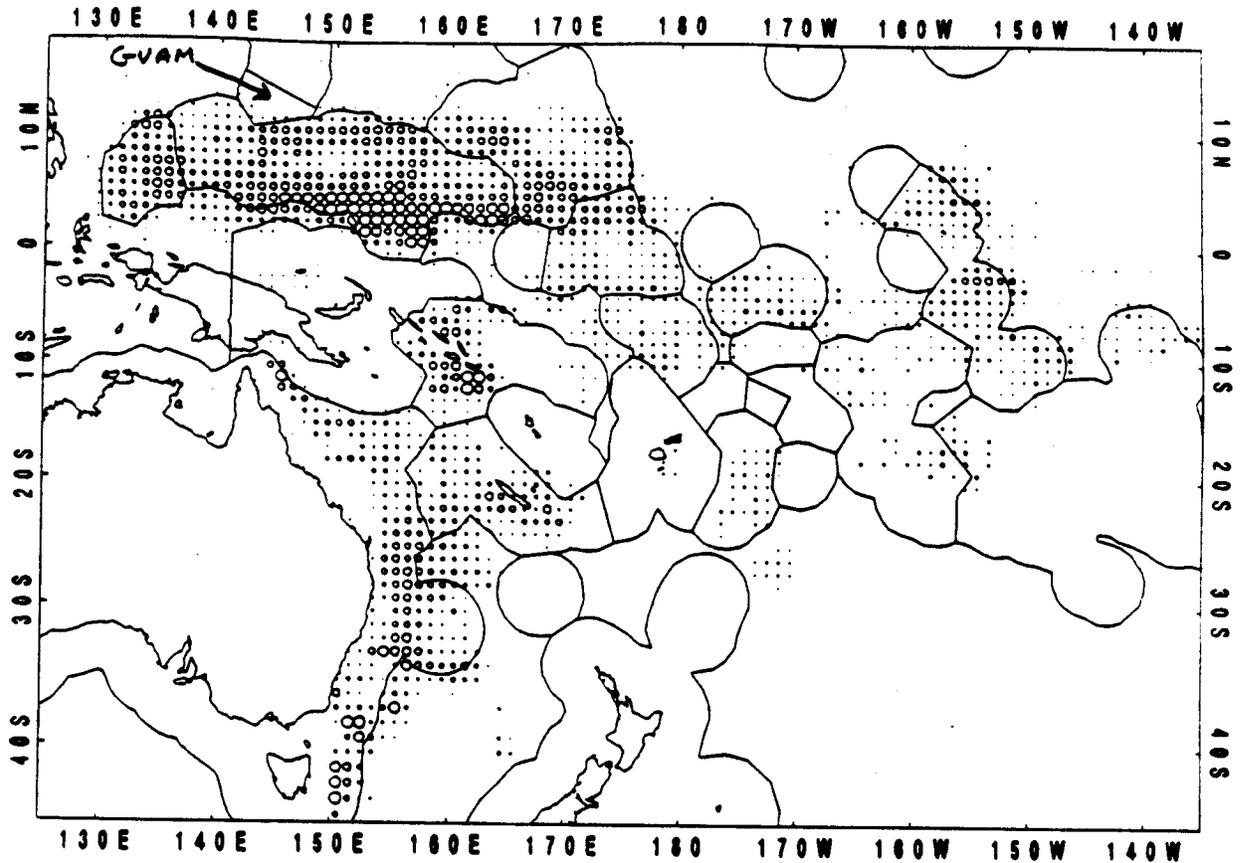
(ii) concur with the Council's recommendation that it is consistent with the goals and objectives of the FMP, the national standards, and other applicable law, and recommend that the Assistant Administrator publish a notice in the Federal Register of any preliminary changes to the criteria for providing exemptions to the longline area closure. A 30-day period for public comment will be afforded. After consideration of public comments, the Assistant Administrator may publish notice in the Federal Register of any final changes to the exemption criteria for the longline fishing prohibited area.

9.0 REFERENCES

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Appendix I
1990 Longline Effort in the Area Surrounding Guam
Longline Effort Information Compiled From Daily Catch and Effort Logbooks
South Pacific Commission



Longline effort, 1990

Source: Regional Tuna Bulletin, First Quarter 1991, Tuna and Billfish Assessment Programme, South Pacific Commission, Noumea, New Caledonia

