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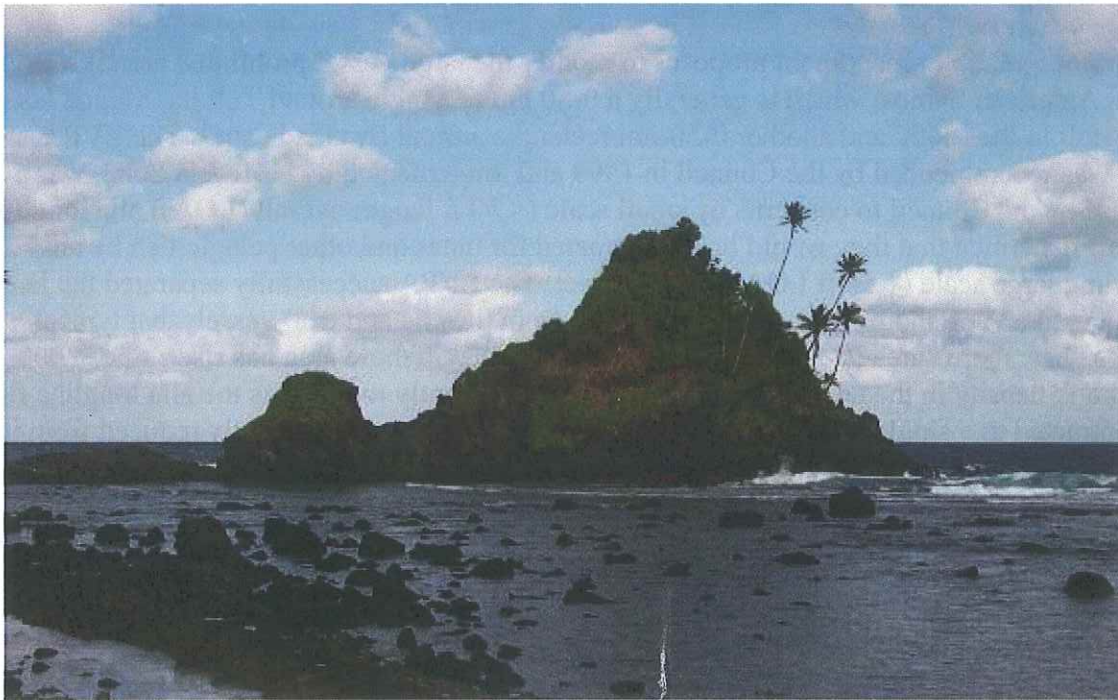
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--DRAFT REGULATORY AMENDMENT--

Potential Modifications to American Samoa Large Vessel (≥ 50 ft) Prohibited Area

Including an Environmental Assessment

February 9, 2011



**Western Pacific Regional Fishery Management Council
1164 Bishop Street, Suite 1400
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Draft Regulatory Amendment Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region

Potential Modifications to American Samoa Large Vessel (≥ 50 ft) Prohibited Area

Draft: January 19, 2011

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1.0 Abstract

This draft regulatory amendment proposes to modify the large vessel prohibited area (LVPA) around American Samoa, which is generally a 0-50 nm rectangle around Tutuila, Manua Islands, Rose Atoll in the south and another 0-50-nm rectangle around Swains Island¹. The LVPA, which was recommended by the Council in 1998 and implemented by NMFS in 2002, was a response by the Council to concerns by small scale (< 50 ft length overall (LOA)) alia longliners and troll fishermen that they would be outcompeted for tunas and other pelagic fish by an expanding large scale (≥ 50 ft LOA) longline fleet. The LVPA successfully separated the large longliners to an “offshore” area outside of 50 nm from the alia and troll vessels that typically fish within a “nearshore” area (0-50 nm). Hook density in the offshore area has risen since 2002, while hook density in the nearshore area has been significantly reduced as the alia longline fleet has contracted to a single operational vessel and troll fishing has been greatly reduced from its peak during the 1980s and 1990s. Further, no major fishing operation has been developed on Swains Island, which continues to be inhabited by less than 10 people, engaged in a largely subsistence lifestyle and dependant on copra harvesting. As such the need for physical separation between the two sectors is not as warranted

The offshore area outside of the LVPA is approximately 260,000 km²; however, the establishment of incongruent boundaries between the LVPA and the Rose Atoll Marine National Monument in 2009 further reduced fishing area available to the large vessel fleet by approximately 6175 km² to 253,825 km². Hook density within the offshore area outside of the LVPA has been observed since 2006 to be at levels at or above levels associated with gear

¹ The EEZ shape files used were as follows: GCS: NAD 83 HARN, Datum: NAD 1983 HARN, Projection CS: NAD 1983 HARN UTM Zone 2S, Projection: Transverse Mercator. A summary of the shape files and the geographic data are contained in Figure 14 and Tables 7-9 in Appendix 1

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conflict. For these reasons, the Council is considering potential modifications to the boundaries of the LVPA.

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1.1 Document Overview and Preparers

This is a combined Regulatory Amendment and Environmental Assessment. The contents of this document comply with Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requirements for fishery management plan amendments, and with National Environmental Policy Act (NEPA) requirements. The document informs interested and affected parties about the Council's recommended fishery management measures, and serves as the basis for a determination by NMFS on whether or not to prepare an environmental impact statement. The document also informs NMFS in its development of regulations that would implement the selected action, if approved by the Secretary of Commerce.

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List of Acronyms/Abbreviations

ASG	American Samoa Government
CMM	Conservation and Management Measure
CNMI	Commonwealth of Northern Mariana Islands
CPUE	Catch per Unit of Effort
Council	Western Pacific Regional Fishery Management Council
DMWR	American Samoa's Department of Marine and Wildlife Resources
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EPO	Eastern Pacific Ocean
ESA	Endangered Species Act
F	Fishing Mortality
FAD	Fish Aggregation Device
FEIS	Final Environmental Impact Statement
FEP	Fishery Ecosystem Plan
FMP	Fishery Management Plan
FR	Federal Register
HAPC	Habitat Areas of Particular Concern
HBF	hooks between floats
IATTC	Inter-American Tropical Tuna Commission
ITS	Incidental Take Statement
lb	pound or pounds
MMPA	Marine Mammal Protection Act
MSY	Maximum Sustainable Yield
mt	metric tons
MUS	Management Unit Species
nm	nautical mile or miles
NMFS	National Marine Fisheries Service
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
PIFSC	Pacific Islands Fisheries Science Center
PIRO	Pacific Islands Regional Office
PMUS	Pelagic Management Unit Species
RFMO	Regional Fishery Management Organization
RFP	request for proposals
SSC	Scientific and Statistical Committee
SPC	Secretariat of the Pacific Community
TDR	temperature-depth recorder or time-depth recorder
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
VMS	vessel monitoring system
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean

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3.0 Introduction

A principal spatial management measure for the American Samoa pelagic fisheries are two zones extending approximately 50 nm from the islands in the archipelago that are closed to pelagic fishing vessels longer than 50 ft. The northern and southern segments which comprise the large vessel prohibited area (LVPA) were recommended by the Council in 1998 and implemented by NMFS in 2002 under the Council's Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region. Regulations for the LVPA can be found at 50 CFR §665.817.

Another spatial management zone within the US EEZ around American Samoa, the Rose Atoll Marine National Monument (MNM), was implemented in 2009 through an Executive Order² by President George W. Bush which overlays the eastern part of the southern LPVA (see Figure 6). The management objectives of the LPVA and the Rose Atoll MNM differ and the boundaries of the two spatially managed areas are incongruent.

The LVPA was implemented to separate large vessels (longliners and purse seiners) from small vessels (longliners and trollers). Longline vessels > 50ft that had operated within the LVPA prior to the implementation of the measures in 2002 were allowed to continue fishing within the management zone; however there were only two vessels grandfathered in but only one continues to fish.

The majority of the American longline fishery prior to 2002 comprised small scale artisanal longliners, known locally as alia. These vessels (Figure 1) are a fishing platform design originally introduced from neighboring Samoa for bottomfishing and trolling, but which were readily adaptable for longline fishing, using a manual reel and monofilament longline gear.



Figure 1. A typical alia catamaran that pioneered the American Samoa longline fishery after 1994

² Federal Register, Vol. 74, No. 7, January 12, 2009, 1577-1581.

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The success of this gear in Samoa in the early 1990s led to the transfer of this technology to American Samoa and the beginning of longline fishing in the Territory in 1994. The fishery grew rapidly from a single operator in 1994 to 37 active vessels by 2000. The success of the fishery was based on the predominance of albacore which formed between 70-80 percent of the catch, and the ability of longliners in Samoa and American Samoa to sell albacore to the two tuna canneries based in Pago Pago. However, since 2009 only one cannery is still operating in Pago Pago.

In the late 1990s, three large vessels >50 ft began to operate in the longline fishery, prompting fishermen in the alia fleet to request that the Council implement some form of spatial zoning to minimize the potential for gear conflicts and catch competition. Over this time period, the alia fleet also developed, with larger 'super' alia > 40ft entering the fishery. The situation was also complicated by the presence of U.S. purse seiners in American Samoa, which supplied the two Pago Pago canneries, and on occasion fished in the U.S. EEZ around American Samoa.

The end result was that the Council recommended a PFMP amendment to implement two spatial zones in the U.S. EEZ around American Samoa (Figure 2). The zones prohibited operations of pelagic fishing vessels > 50ft as a measure to ensure the continuity of the small scale alia fleet, while providing fishing opportunities for larger (>50ft) longliners and purse seine vessels in the remainder of the U.S. EEZ.

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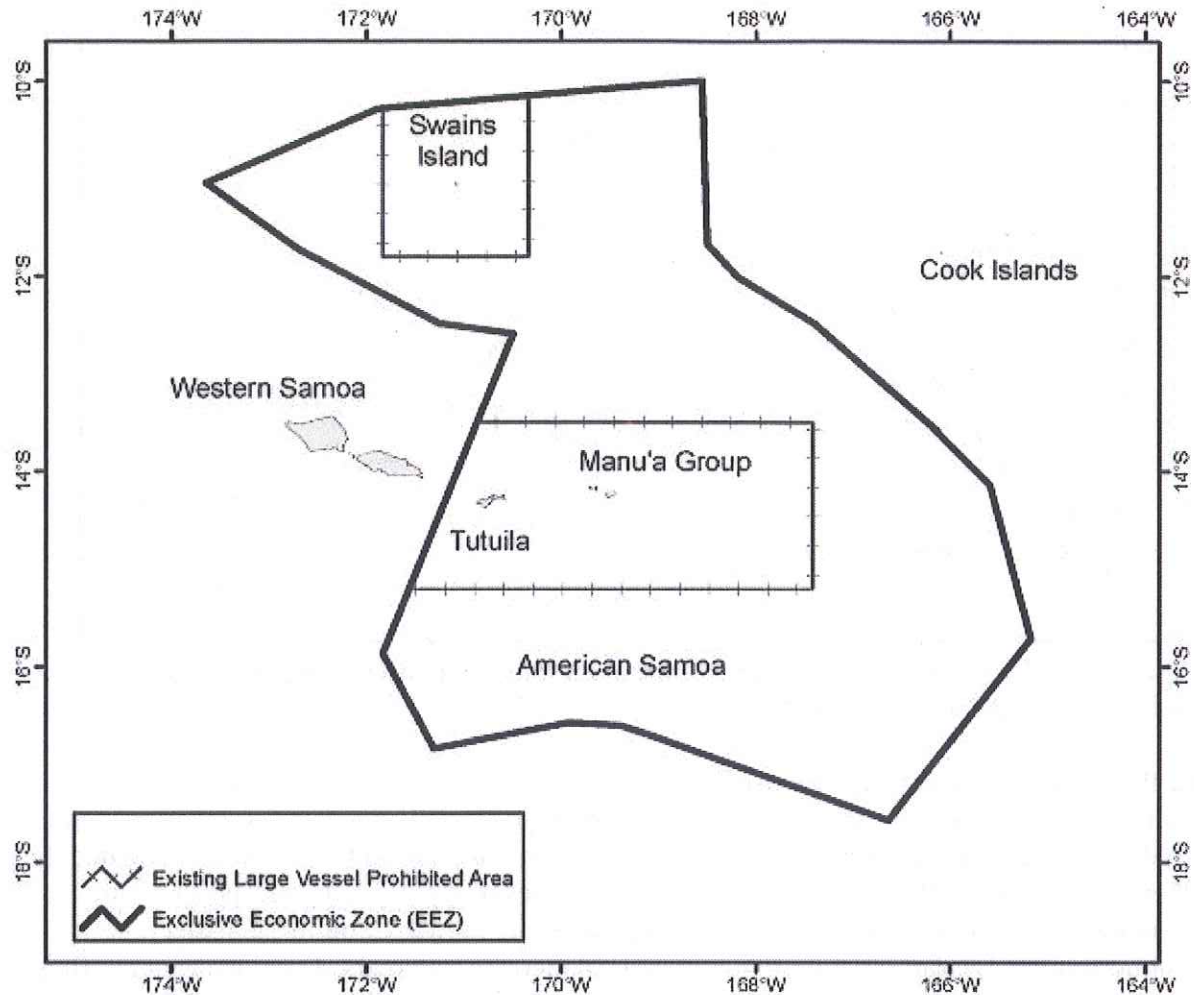


Figure 2. Large (≥ 50 ft) pelagic fishing vessel area closures in the American Samoa archipelago

The area closures provided the desired effect of providing a separation of the large and small vessel fleets. The large fishing vessels operated in the 70 percent of the U.S. EEZ open to them, some ranging further into high seas areas to the north and south of American Samoa, or fishing through licensing agreements in neighboring countries, especially in the Cook Islands.

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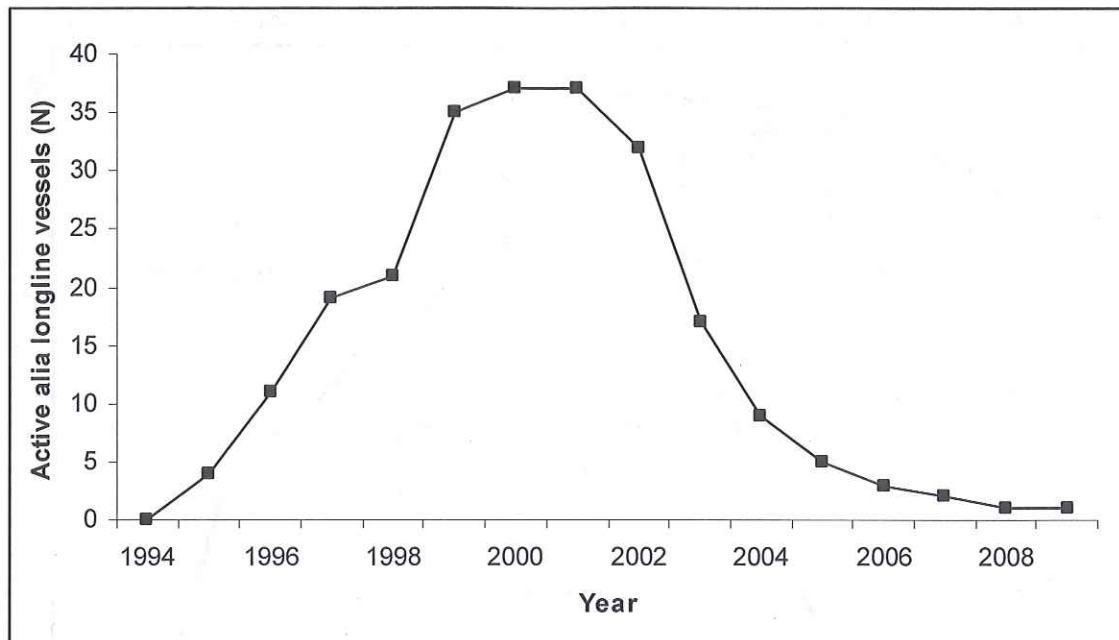


Figure 3. The number of active alia catamaran longliners operating in American Samoa between 1994 and 2009

Despite the protection of the 50 nm closed area, an increasing number of large vessels entering the fishery led the Council to recommend an amendment to the Pelagics FMP to institute a limit entry to the American Samoa longline fishery in 2002 (Amendment 11). NMFS implemented the limited entry program in 2005. The management objectives of the limited entry program are to: 1) prevent local depletion, 2) maintain sustained community participation in the fishery, 3) ensure opportunities for participation by indigenous American Samoans, 4) reduce gear conflicts, and 5) minimize fish bycatch. The alia fishery entered a period of declining participation after 2002 (Figure 3). This decline is attributed the combination of economic costs such as fuel prices and falling catch rates of albacore around Tutuila and the lack of range by the alia fleet to seek fishing grounds further offshore. The alia fleet has shrunk to a single vessel operating in 2009 and 2010. The decline in albacore catch per unit of effort (CPUE) (Figure 4) appears to be related to environmental conditions and possibly localized depletion, since the density of longline hooks set in the U.S. EEZ around American Samoa are among some of the highest globally.

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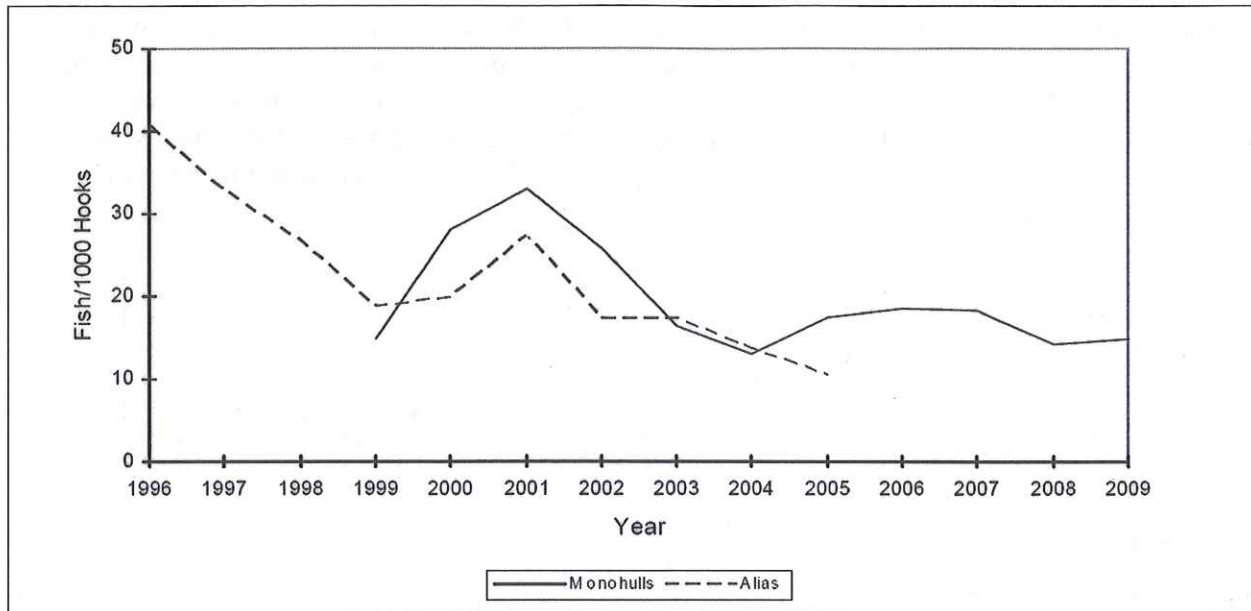


Figure 4. CPUE trends for alia and large vessel monohull longliners in the American Samoa longline fishery

Note: Values for the alia fishery after 2005 cannot be shown for reasons of confidentiality.

Currently, the American Samoa longline fleet is primarily into a large vessel fleet, with about 25-30 vessels active (Figure 5), landing about 10 million pounds of albacore annually. The level of effort (in number of hooks) observed in the area outside of the LVPA in the EEZ around American Samoa since the implementation of the limited entry permit program has been at or above large vessel gear conflict threshold level (55/hook/km²) identified in Amendment 11 (Table 1).

Table 1: Longline Effort (Hooks) and Offshore Hook Density

	2006	2007	2008	2009
Annual Number of Hooks Set (millions)	14.3	17.5	14.4	14.9
Offshore Hook Density (hooks/km ²)	55	67.3	55.3	57.3

Note: Offshore hook density is calculated by using the annual number of hooks set divided by 260,000 km², which the area of remaining portion of the EEZ outside of the large vessel prohibited area (generally 50 nm from shore). Amendment 11 identified 55 hooks/km²/yr as a threshold for gear conflicts to increase significantly. Data on nearshore (0-50 nm) hook density since the start of the limited entry program is unavailable, but with only 1-3 alia vessels fishing since 2006, hook density levels have been well below those predicted in Amendment 11 (22 hooks/km²/yr).

An additional complication for this large vessel fleet has been the 2009 implementation of a

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Marine National Monument (MNM) around Rose Atoll with boundaries extending for 50 nm, inside of which commercial fishing is prohibited. Unfortunately for the American Samoa fishery, the Rose Atoll MNM boundaries were not drawn congruent with the large pelagic vessel area closure for the southern islands in the archipelago (Figure 6). This further reduces the fishable area available to large longline vessels in the EEZ around American Samoa and increases hook density in the remaining area.

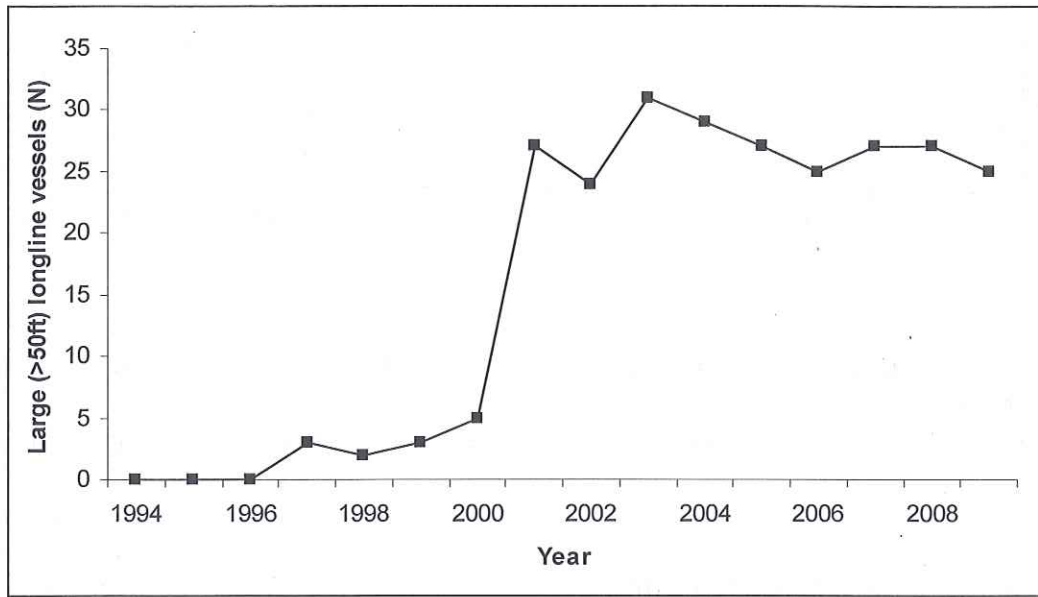


Figure 5. Large vessel (>50ft) fleet size in American Samoa, 1994-2009

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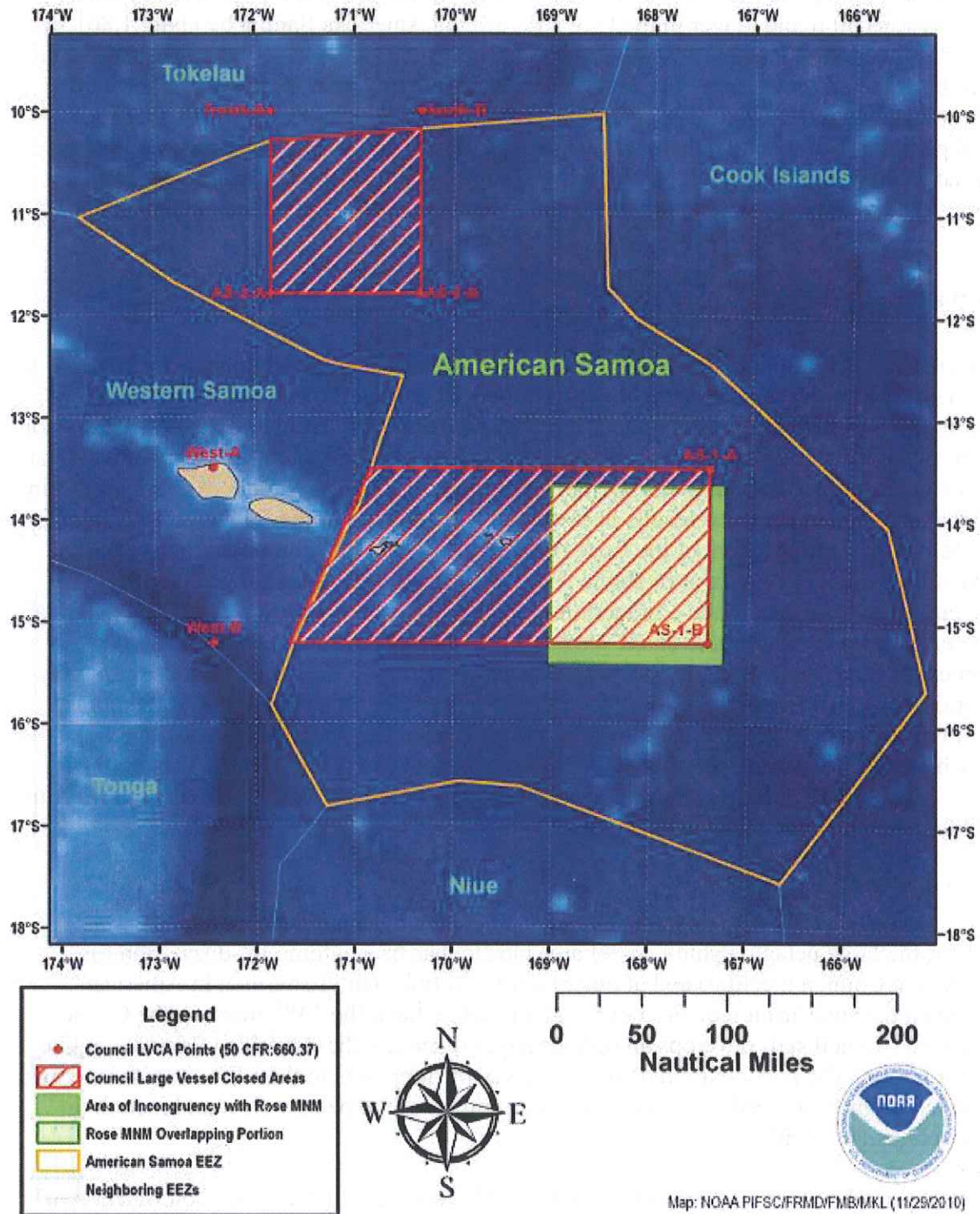


Figure 6. American Samoa archipelago showing the large (≥ 50 ft) pelagic fishing vessel closed area and the Rose Atoll Marine National Monument boundaries, and the incongruence of the southern and eastern boundaries

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The mismatches of the two zones on the eastern and southern edges of the large vessel area closure around Tutuila, the Manua Islands, and Rose Atoll, increased the overall area closed to fishing by vessels 50 ft and longer in the U.S. EEZ around American Samoa by about 1,801 sq nm or 6,175 square kilometers (1,097 sq nm to the south and 713 sq nm to the east). This area of water has been fished regularly by the American Samoa longline fleet for the better part of a decade, producing a total 1.9 million pounds of fish, or 237,000 lb annually worth about \$237,000 per year (Lowe and Graham 2009). An additional Presidential Executive Order would be required to make the Rose Atoll MNM boundaries congruent with the eastern and southern segment of the large vessel closed area in the southern portion of the EEZ around American Samoa.

4.0 Purpose and Need

This purpose of this draft regulatory amendment is to consider appropriate management action to address the following two issues. First, the incongruence between the boundaries of the large vessel prohibited area around Tutuila, the Manua Islands, and Rose Atoll and the new Rose Atoll Marine National Monument, which was established by Presidential Executive Order in 2009, has created boundaries that complicate enforcement, fishing operations, and reduces available fishing areas to the large vessel fleet that results in increased hook density in the EEZ around American Samoa. Before the establishment of the Rose Atoll Marine National Monument, hook density levels outside of the LVPA were at or above levels associated with potential gear conflict between large vessels. Second, the contraction of the small vessel fleet has reduced the potential for gear conflict between large and small vessels – the primary concern that drove the development of the LVPA. Because of significant reduction in the small vessel fleet, it may be appropriate to consider reducing the size of the LVPA, either on a permanent or temporary basis, to provide larger fishing area to the large vessel fleet of the American Samoa longline fishery, which could reduce observed hook density levels outside of the LVPA. This draft regulatory amendment examines alternatives that could potentially modify the existing LVPA to address the issues identified above.

5.0 Initial Actions

The issue of the large pelagic fishing vessel area closure has been a topic for discussion for several years at Council meetings and at other public meetings with fishermen in American Samoa. Given the significant reduction of the alia longline fleet, the 148th meeting the Council recommended Council staff develops an options paper regarding the American Samoa longline fishery and LVPA. The paper explored spatial management options in the EEZ around American Samoa which might better reflect the current configuration of the pelagic fleet and including temporal options for modifying the LVPA.

The Council considered the various options at its 149th meeting, which included elimination of the LVPA, reduction to 12 and 25 nautical miles, either temporarily or permanently, or modifications to the LVPA to eliminate the incongruence with the Rose Atoll MNM.

The Council recommended modification of the LVPA to eliminate any incongruent boundaries with the Rose Atoll MNM as its preliminary preferred alternative, so as to facilitate enforcement

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and fisheries operations by reducing fishery participant confusion as to what boundaries to follow and where. The Council did not favor a reduction of the LVPA to 12 or 25 miles around the southern islands so as to maintain protection of the various banks and seamounts important for the American Samoa commercial and recreational troll fisheries. The Council did, however, preliminarily recommend that the segment of the LVPA around Swains Island be temporarily reduced to 25 nm.

6.0 Description of Alternatives

Alternative 1. No action

Under this alternative no modifications would be made to any of the boundaries implemented through the PFMP to prohibit large pelagic fishing vessels from within 50 nm of the islands of the American Samoa archipelago (see Figure 6).

Alternative 2. Modify the current closed area boundaries of the southern segment of the large vessel area to be congruent with the Rose Atoll MNM boundaries

The modifications to the large pelagic fishing area boundaries could comprise the following options:

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Alternative 2a. Adjust large vessel areas closure in the south and the northeast so that the eastern and southern boundaries would be congruent with the Rose Atoll MNM (Figure 7).

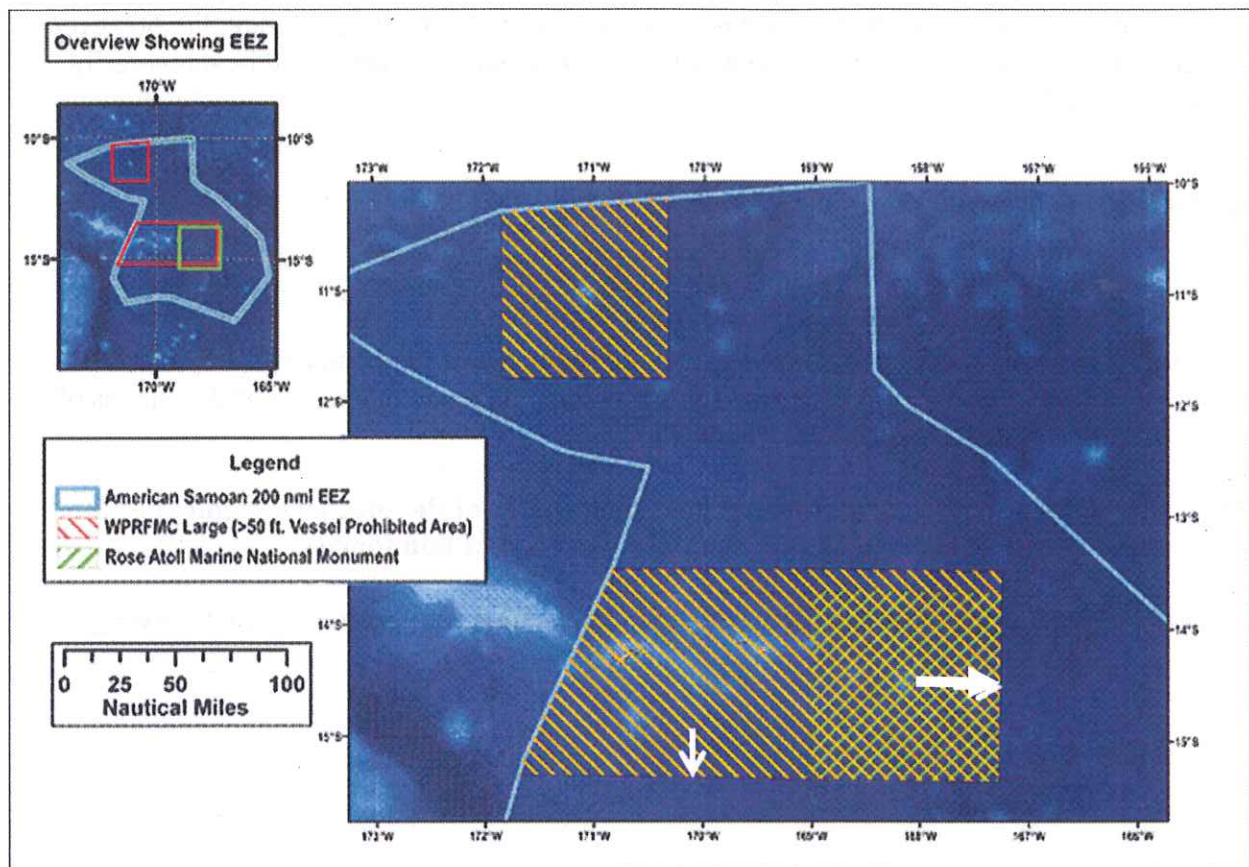


Figure 7. Option 2a: adjustments to the southern portion of the large vessel area closure so that the, eastern and southern boundaries are congruent with the Rose Atoll marine National Monument

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Alternative 2b. Reduce the northern boundary to be congruent with monument and extend southern and eastern boundaries to be congruent with monument (Figure 8).

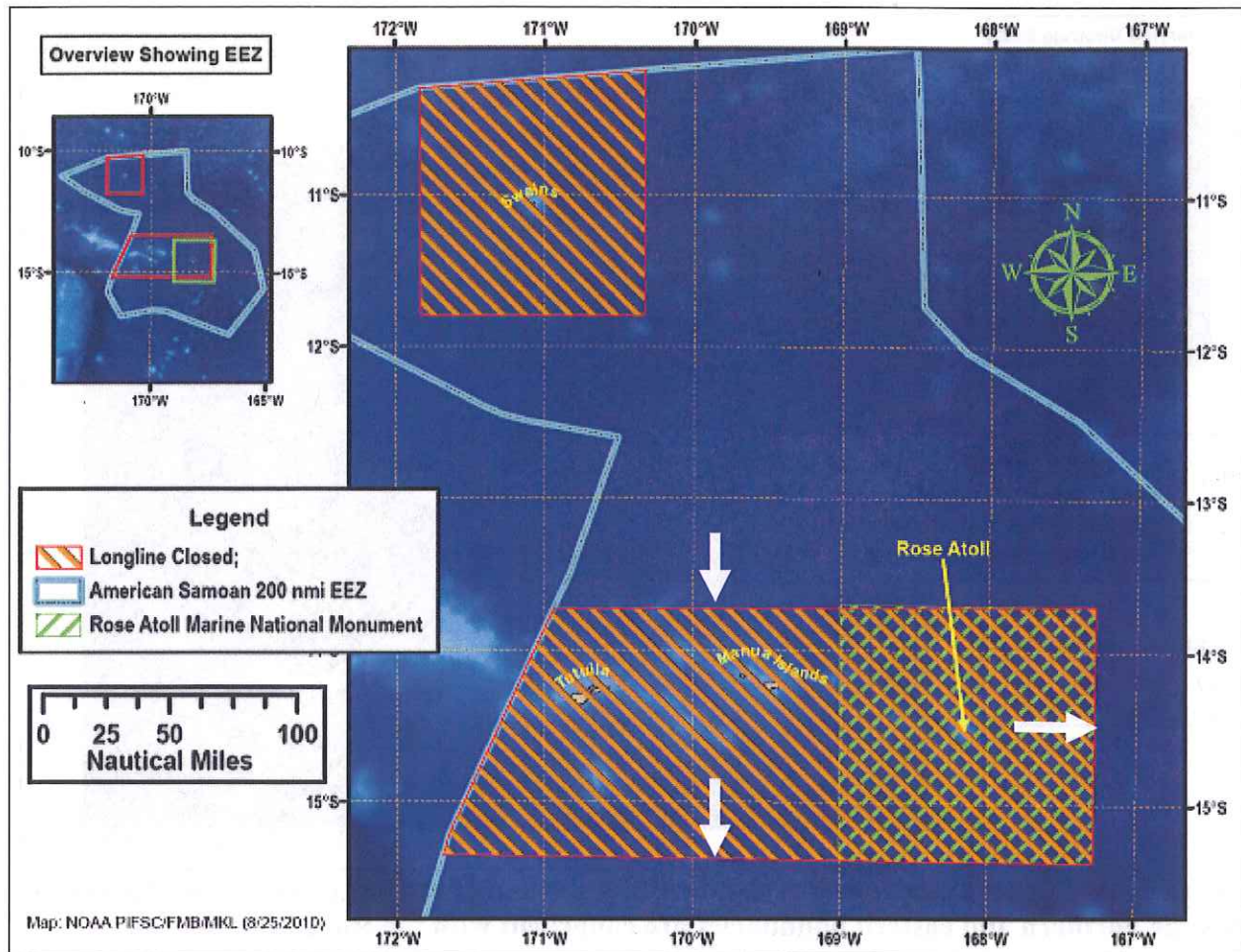


Figure 8. Option 2b: adjustments to the southern portion of the large vessel area closure so that the, northern, eastern and southern boundaries are congruent with the Rose Atoll marine National Monument

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Alternative 2c. Reduce northern boundary and extend eastern boundary to be congruent with monument (Figure 9) (Preliminarily preferred)

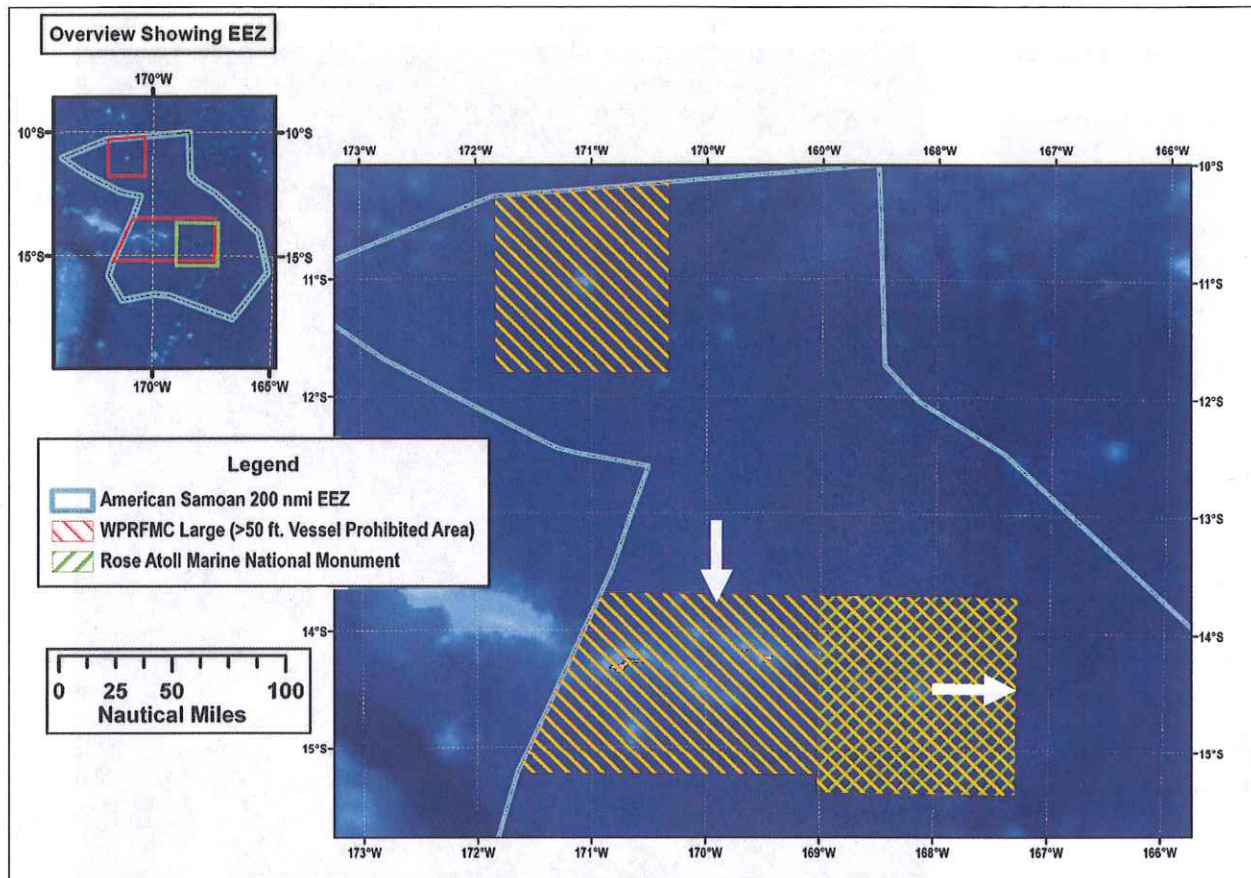


Figure 9. Option 2c: adjustments to the northern portion of the large vessel area closure so that the northern and eastern boundaries are congruent with the Rose Atoll marine National Monument

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Alternative 3. Temporarily reduce the current large pelagic fishing vessel area closure to:

a. 25 nm

b. 12 nm

Under these options, the current large pelagic fishing vessel area closure boundaries (southern islands and Swains) would be reduced to either 25 nm or 12 nm (Figure 10 and Figure 11) for a limited time period, after which the area closure would be evaluated with respect to potential impacts to other pelagic fisheries. **(Preliminary preferred for Swains only)**

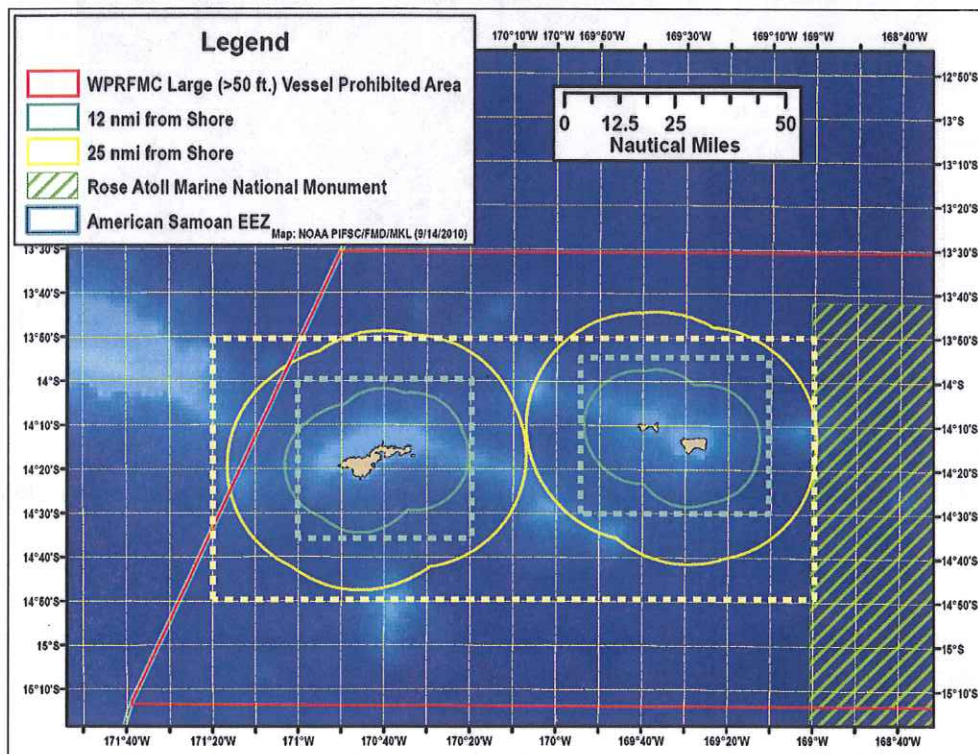


Figure 10. Potential 25 and 12 nm boundaries for a modified large vessel area closure around Tutuila and the Manua Islands

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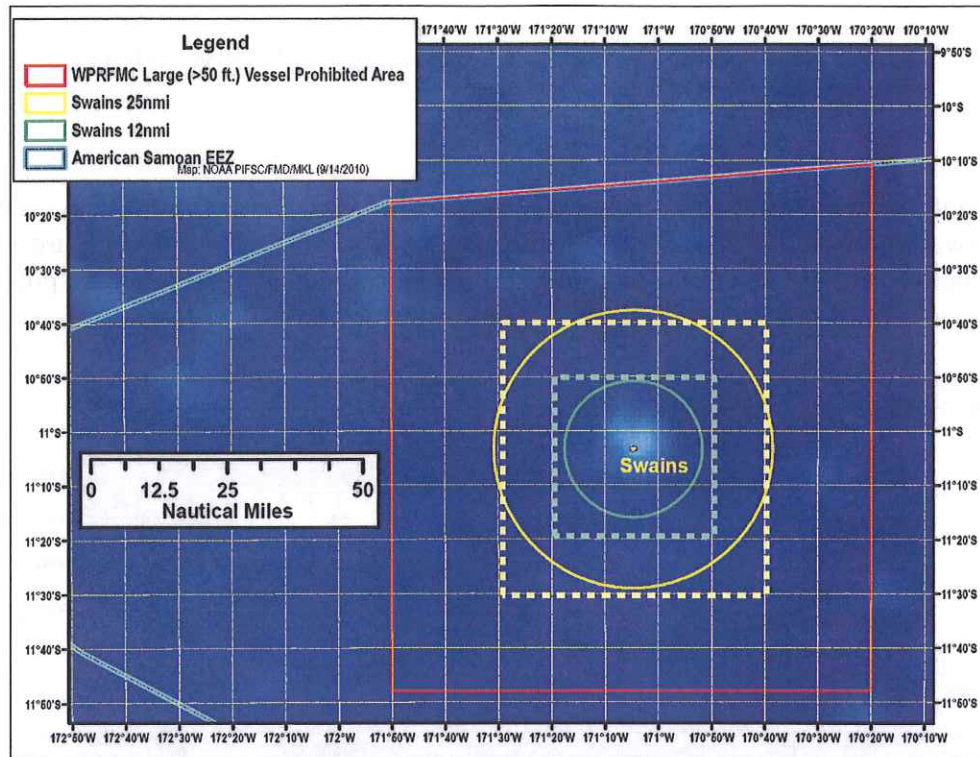


Figure 11. Potential 25 and 12 nm boundaries for a modified large vessel area closure around Swains Island

Alternative 4, Permanently reduce the current large pelagic fishing vessel area closure to:

- a. 25 nm
- b. 12 nm

Under these options, the current large pelagic fishing vessel area closure boundaries (southern islands and Swains) would be permanently reduced to either 25 nm or 12 nm.

7.0 Description of the Affected Environment

7.1 American Samoa

For a description of affected environment in American Samoa in which the pelagic fisheries managed under the FEP, please refer to the Draft Regulatory Amendment titled "Potential Modifications to the American Samoa Longline Limited Entry Program" which will also be considered at the February 2011 Science and Statistical Committee meeting and the March 2011 Advisory Panel, Plan Team, and Council meetings. To save resources, this section was purposely omitted this document.

7.2 Longline fishing in the Large Pelagic Fishing Vessel Area Closure (LVPA)

Table 2, Table 3 and Table 4 provide a summary of the catches made within the current LVPA.

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Table 10 and Table 11 divide the time series into the periods 1996 – 2002 when the LVPA was implemented in March 2002, and the period from 2003-2009 when fishing in the LVPA was permitted only to vessels < 50 ft and those large vessels having fished within the LVPA prior to November 13, 1997. The catch history in Table 2 and Table 3 thus reflects a mix of vessels, but with a progressively declining number of alia catamarans after 2001. The data have been merged because of confidentiality issues relating to the number of small and large pelagic vessels fishing within the LVPA

The same aggregation of fleets applies to the catch records from the LVPA segment around Swains. The time series of fishing around Swains is also truncated to the period between 2001 and 2007, as too few vessels fished within this area in years prior to 2001 and after 2007.

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Table 2. Catch history from within the southern segment of the LVPA around the American Samoa Archipelago (Tutuila, Manua Islands, Rose Atoll). Part 1, 1996-2002

Species	Catches in lbs						
	1996	1997	1998	1999	2000	2001	2002
ALBACORE	132,348	3,994	560,282	443,722	550,468	887,834	726,369
BIGEYE TUNA	5,596	519,904	9,821	21,869	19,481	17,439	19,775
BLACK MARLIN	1,358	11,344	0	11,820	11,480	1,599	0
BLACKTIP REEF SHARK		4,301	29,136	0	0	0	0
BLUE MARLIN	11,689	0	0	27,513	40,574	31,808	20,797
BLUE SHARK	898	25,306	0	674	252	336	168
BLUEFIN TUNA	0	897	17,801	0	0	476	27,033
GREAT BARRACUDA		0	0	0	0	52	73
MAHIMAH	4,873	0		26,693	28,198	36,418	131
MAKO SHARK	449	20,941		1,685	0	181	4,467
MOONFISH	430	1,235	1,072	2,366	1,391	9,448	796
OCEANIC WHITE TIP SHARK		2,250		0	0	0	0
OILFISH	34	0	165	86	57	416	265
OTHER (SHARK)	786	148	2,358	60	0	181	48
OTHER PELAGIC	77	449	4,349	5,107	2,548	288	248
POMFRET	16	240	0	192	114	71	878
SAILFISH	1,326	32	1,675	185	1,489	1,560	29,335
SILKY SHARK		4,454		0	0	0	0
SKIPJACK TUNA	58	0	20,713	24,939	14,888	33,828	2,459
SPEARFISH	230	3,452	901	138	230	92	1,743
STRIPED MARLIN	1,020	871	0		2,890	1,995	138
SUNFISH	450	488		0	0	0	0
SWORDFISH		0	3,402	276	1,782	8,908	7,890
THRESHER SHARK	112	2,000	0	0	0	194	194
WAHOO	2,924	337	25,616	29,075	25,265	34,058	48,153
YELLOWFIN TUNA	14,781	12,096	51,408	117,472	164,397	137,874	217,901
Total	179,456	614,737	728,698	713,870	865,503	1,205,057	1,108,860

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Table 3 Catch history from within the southern segment of the LVPA around the American Samoa Archipelago (Tutuila, Ma'nua Islands, Rose Atoll). Part 2, 2003-2009

Species	Catches in lbs						
	2003	2004	2005	2006	2007	2008	2009
ALBACORE	414,432	162,822	104,451	80,597	192,915	141,898	98,453
BIGEYE TUNA	13,348	6,572	4,708	2,623	8,231	3,271	3,662
BLACK MARLIN	8,020	0	92			2,583	816
BLACKTIP REEF SHARK	0	0	0				
BLUE MARLIN	420	2,990	1,144	2,583	3,942		
BLUE SHARK	1,190	0	0		168		
BLUEFIN TUNA	20,658	238	0				
GREAT BARRACUDA	0	0	0		198		10
MAHIMAH	601	5,329	7,920	3,835	6,254	1,872	2,292
MAKO SHARK	1,037	90	0				
MOONFISH	296	691	2,292	104	494	642	445
OCEANIC WHITE TIP SHARK	0	0	0		271		
OILFISH	246	0	0	38	19		
OTHER (SHARK)	0	19	374		48		
OTHER PELAGIC	96	48	90				
POMFRET	0	53	0				5
SAILFISH	567	425	25	366	1,135	355	1,276
SILKY SHARK	15,697	71	0		14,049		
SKIPJACK TUNA	0	8,296	2,320	2,755		9,504	4,888
SPEARFISH	0	46	46	92			1,012
STRIPED MARLIN	413	1,307	1,307	482	826	69	1,995
SUNFISH	0	0	0				
SWORDFISH	2,545	1,446	1,782	542	764	72	255
THRESHER SHARK	0	0	0				
WAHOO	24,763	19,378	15,297	7,651	16,970	7,669	6,384
YELLOWFIN TUNA	80,475	87,044	60,000	55,195	80,250	56,550	33,727
Total	584,805	296,867	201,847	156,862	326,532	224,483	155,221

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Table 4. Catch history from within the northern segment of the LVPA (Swains Island), 2001-2007

Species	Catches in lbs						
	2001	2002	2003	2004	2005	2006	2007
ALBACORE	324,178	55,568	40,997	42,719	35,171	25,160	25,724
BIGEYE TUNA	13,658	1,309	5,758	4,668	1,612	1,666	1,318
BLACK MARLIN	408						
BLUE MARLIN	544	136	84		46		136
MAHIMAH	1,437	203	311	482	223		
MOONFISH	1,329			99			
OTHER PELAGIC	0					150	30
POMFRET	56		35		76		
SAILFISH	355						
SKIPJACK TUNA	4,696	2,588	611	4,624	1,849	2,214	1,703
SPEARFISH	184		46		46		
STRIPED MARLIN	619						
SWORDFISH	255	382	127			837	174
WAHOO	2,938	921	600	4,543	2,534	3,029	2,185
YELLOWFIN TUNA	12,259	6,677	9,788	33,839	6,172	5,056	3,247
Total	362,914	67,784	58,357	90,975	47,728	38,111	34,518

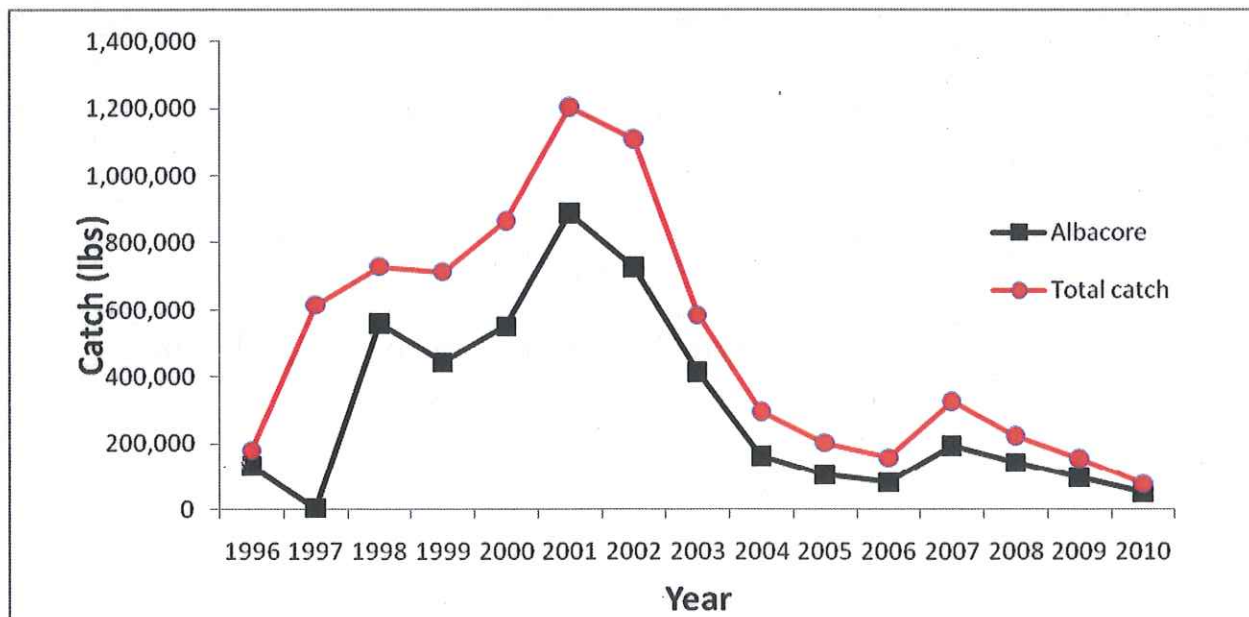


Figure 12. Time series of albacore catch and total catch from within the southern segment of the LVPA around the American Samoa Archipelago (Tutuila, Ma'nu'a Islands, Rose Atoll), 1996 -2009

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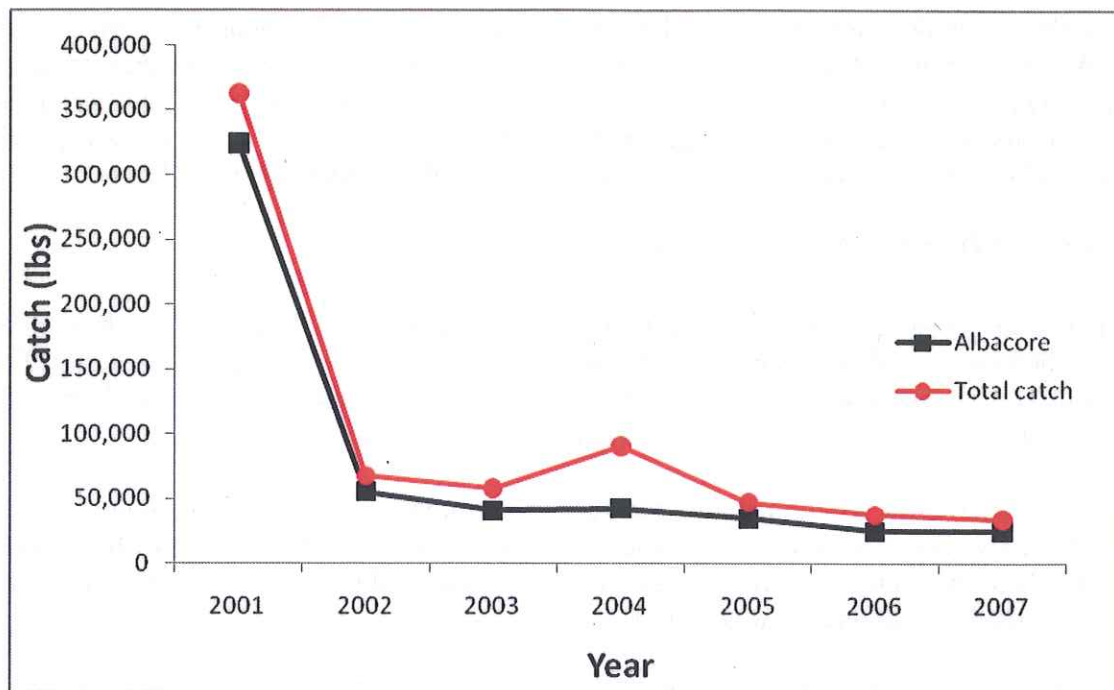


Figure 13 Time series of albacore catch and total catch from within the northern segment of the LVPA (Swains Island), 2001-2007

The data shown in Table 2, Table 3 and Table 4 is summarized in Figure 12 and Figure 13. Catches of albacore show the same general increase in catch in the entire longline fishery up to 2001, with a peak of about 800,000 lbs and a total catch of 1.2 million lbs. From 2002 onwards, there was a steady decline in the catch due to the exclusion of large pelagic vessels from the LVPA, which had no documented fishing prior to November 13, 2007. The decline in catch also reflects the shrinking participation by the alia fleet operating around Tutuila. Catches have varied in the post-LVPA period and have averaged 156,000 lbs and 253,000 lbs for albacore and the total catch respectively between 2003 and 2009.

The decline in fishing around Swains in Figure 13 reflects the immediate exclusion of large vessels after implementation of the LVPA in March 2002, since fishing by alias around Swains only occurred in 2001. Catches declined from around 325,000 lbs of albacore to about 56,000 lbs between 2002 and 2007.

8.0 Analysis of the Alternatives

The large pelagic vessel area closure currently regulates all pelagic fishing vessels greater than 50 ft, which includes longliners and purse seiners fishing within the US EEZ around American Samoa. However, it should be noted that there is another pending Council action for purse seine vessels which would extend the closure for these vessels out to 75 nm.

All of the alternatives examined and analyzed here are concerned with the spatial management of the large vessel (≥ 50 ft) pelagic fishing vessel closed area in the U.S. EEZ around American

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Samoa. In particular, Alternatives 2a, 2b, and 2c pertain to the closed area boundaries around the southern islands, while Alternatives 3 and 4 concern the closed area boundaries around Swains Island. As such the impacts of these alternatives are analyzed collectively, since they are all concerned with variations of the current 50 nm large pelagic fishing vessel area closure. The data to assist with the analyses and with the geometry of each of the various alternatives was provided by Lowe et al (2010), and is summarized in Appendix 1 of this regulatory amendment.

8.1 Impacts on Target and Non-target Stocks

The principal target stock for the American Samoa longline fishery is albacore, which between 2002 and 2009 comprised between 61 and 84 percent of the longline catch (mean = 77%) (Table 3). Skipjack comprises from approximately 71 – 90 percent of the purse seine total catch with yellowfin and bigeye tuna comprising the majority of the remaining retained catch.

The no action alternative would maintain the current closures to large pelagic fishing vessels, excluding any longline vessels or purse seine > 50ft. In addition, the boundaries of Rose Atoll MNM with the monument southern and eastern boundaries would increase the water closed to large pelagic fishing vessels by 1,809 sq nm.

It is unlikely that any of the considered changes to the geometry of the large pelagic fishing vessel area closures would have any substantial impacts on the South Pacific albacore stock, which is subject to fishing across much of its range by other longline fleets in sub-tropical latitudes and at higher latitudes by troll fishing vessels. Hoyle and Davies (2009) concluded that there is no indication that current levels of catch are not sustainable in terms of recruitment overfishing, particularly given the age selectivity of the fisheries (which primarily catch larger, older (7-12) fish); however, current levels of fishing pressure appear to be affecting longline catch rates, through localized depletion. Moreover, catch rates in domestic longline fisheries exhibit strong seasonal trends due to fluctuations in the oceanographic conditions and inter-annual variation in albacore catch rates are evident in most of the Pacific Island fisheries (Langley 2006).

The maintenance of the current boundaries provides protection for the single alia catamaran still operating from Pago Pago, and assuming that not all albacore are intercepted by the large vessel fleet, fishing success of the alia fishing around Tutuila will be a function of albacore abundance and availability in the nearshore waters around this island. Further, the commercial and recreational troll fisheries and their fishing grounds on seamounts around Tutuila and Manua within the LVPA will continue to be protected from competitive interactions with the longline fishery which incidentally catches skipjack, yellowfin, mahimahi and wahoo; all targets of the troll fishery.

Fishing by the large vessel longline fleet in the remainder of the U.S. EEZ will likely continue to be comparable to other years, with vessels fishing around the area closures or fishing outside of the U.S. EEZ through access agreements with neighboring countries or in the high seas to the north and east of American Samoa. Under alternatives 2a and 2b the area of the southern segment of the LVPA (currently 22,722 sq nm) would increase to 26,282, sq nm and 24,061 sq nm respectively, but decrease under preferred Alternative 2c to 22,396 sq nm.

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In the north, the current segment of the LVPA around Swains Island (8,251 sq nm) would be reduced under the preferred alternative (3a) to a 25 nm rectangle covering 2,444 sq nm. A reduction to 12 nm under alternative 3b may bring longline vessels close enough to Swains whereby there may be some competitive interactions between the longline fisheries and any troll fishing around Swains, which may target species such as skipjack, yellowfin, mahimahi, and wahoo caught incidentally by the longline fishery. However, recent expeditions to Swains Island by the NMFS PIRO Coral Reef Ecosystems Division (CRED), have not observed troll fishing being conducted around the island (Ben Richards, NMFS PIFSC pers. comm.). Moreover, the preferred Alternative is for a temporary reduction of the Swains Island LPVA, which would allow for an evaluation of any impacts to be assessed and addressed through subsequent Council action.

The preferred alternative (2c and 3a) would free up an additional 6,133 sq nm of ocean with the U.S. EEZ around American Samoa for fishing by large longline vessels, most of this coming from the reduction of the Swains segment of the large vessel closed area.

Table 5: Initial Permit Allocation and Vessels Prior to Permit Program

Class Sizes	Number of Vessels in 2002	Initial Permits Issued	Vessels active in 2009
A (\leq 40 ft)	93	22	1
B (40.1 ft to 50 ft)	9	5	0
C (50.1 ft to 70 ft)	15	12	5
D ($>$ 70 ft)	21	21	20

Source: NMFS PIRO.

The American Samoa longline fleet fishes under a limited entry program with caps for different vessels size classes (Table 5). Most of the longline vessels fishing in the fishery are class C and class D vessels. Over time the number of trips and the volume of hooks set by this fishery have leveled off. However, hook densities have been at or above the 55 hooks/km² which was identified in Amendment 11 as the threshold for gear conflicts to increase significantly. It is not expected that the changes in the area closures proposed under the proposed alternative will lead to major increases in fishing; rather a modest increase in the available fishing area to the longline fleet, which may ameliorate the effects of high hook densities within the US EEZ

The consolidation of the longline fishery has led to a concomitant leveling off of the catches of both target albacore and the other non-target species, principally other tunas such as skipjack, yellowfin and bigeye; and mahimahi, wahoo, billfish, and sharks. It is unlikely that the proposed changes to the geometry of the LPVA would have any substantial impacts on the South Pacific albacore stock, which is subject to fishing across much of its range by other longline fleets in sub-tropical latitudes and at higher latitudes by troll fishing vessels. As noted earlier, Hoyle and Davies (2009) concluded that there is no indication that current levels of catch are not sustainable in terms of recruitment overfishing, particularly given the age selectivity of the fisheries (which primarily catch larger, older (7-12) fish); however, current levels of fishing

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pressure appear to be affecting longline catch rates, through localized depletion. Moreover, catch rates in domestic longline fisheries exhibit strong seasonal trends due to fluctuations in the oceanographic conditions and inter-annual variation in albacore catch rates are evident in most of the Pacific Island fisheries (Langley 2006).

8.2 Impacts on Protected Species

Turtles

In 2010 NMFS issued a Biological Opinion (BiOp) on the impacts of the American Samoa longline fishery, resulting from a Council FEP amendment to require all large longline vessels to set their hooks at depths greater than 100m. This measure was adopted because observer data showed that the take of green sea turtles in the American Samoa fishery exceeded the anticipated take statement of an earlier (2004) BiOp (NMFS 2004). However, the FEP amendment has not yet been approved and implemented by NMFS.

The 2010 BiOp (NMFS 2010) gives a summary of the consultation history between the NMFS Office and Sustainable Fisheries and Office of Protected Resources. As a result of this internal consultation history between 2008 and 2010, the BiOp only considers the impact of the proposed 100 m depth requirement on four species of marine turtle, namely, greens, hawksbills, olive ridleys and leatherbacks, although other species protected under the ESA are found in the waters around American Samoa. It was determined that South Pacific loggerhead turtles are not likely to be adversely affected by the longline fishery.

None of the proposed changes in the geometry of the current closed area are unlikely to have any major impacts on protected species interactions around American Samoa because the changes are not expected to result in substantial changes in the American Samoa fisheries. The largest change will be the reduction of the closed area around Swains Island (Alternatives 3 and 4) and it might be argued that the ability to fish in closer proximity to Swains increases the potential for interactions with more island based turtles populations such as greens and hawksbill turtles. However, only green sea turtles have been observed caught in the American Samoa longline fishery, apart from a leatherback interaction with an alia operating around Tutuila, which was reported in the vessels logbook (see footnote 21 for source). Moreover, all the sea turtle interactions to date have occurred at a minimum of 100 nm from Swains Island³

Seabirds

From observed trips from April 2006 through December 2009, one seabird interaction (unidentified shearwater in 2007) was reported⁴ by observers. This is expected as typically longline-seabird interactions are minimal in tropical latitudes, being more or less restricted to higher sub-tropical and temperate latitudes (Molony 2004). It is difficult to extrapolate across the entire fleet with only four years of data, three of which reported zero interactions. However, given the observer record to date, and the expected low level of interactions with seabirds, none of the alternatives considered here, including the preferred alternative is likely to have any major increase in seabird interactions with the American Samoa fishery.

³ See WPRFMC draft Amendment 5 to the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region : Measures to Reduce Interactions between the American Samoa Longline Fishery and Green Sea Turtles

⁴ Found on NMFS PIRO website at: http://www.fpir.noaa.gov/OBS/obs_qtrly_annual_rprts.html

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Marine Mammals

No large whale interactions have been observed in the American Samoa fishery, but the fishery is relatively young and observer coverage has been low until 2010. However, humpback whales are considered not likely to be adversely affected by the no-action alternative (NMFS 2010). The minimum population size for the American Samoa humpback whale stock is 150 whales, compared to a minimum population size for the central N. Pacific stock of about 5,833 whales (Final 2009 Pacific and Alaska SARs). Humpback whales are much scarcer in American Samoa than in the Hawaii longline fleet fishing areas and in the Hawaii deep-set fishery there have been three observed humpback interactions in the last eight years with 20 percent observer coverage. In Hawaii's shallow-set fishery, there have been two observed humpback interactions in the last five years with 100 percent coverage.

NMFS PIRO SFD determined in July 2008 that the proposed action, Alternative 2, would have no effect on blue, fin, or sei whales; and in August, 2008, PIRO PRD concurred that sperm and humpback whales are not likely to be adversely affected by this alternative. It is expected that none of the alternatives considered here, including the preferred alternative will result in no adverse impacts to protected species.

There is little available information on protected species interactions with WCPO purse seine vessels; however, domestic vessels are operated in accordance with an international management regime, which includes consultations under section 7 of the Endangered Species Act. In November 2006, NMFS issued its Biological Opinion on the effects of the U.S. purse seine fishery in the WCPO on ESA-listed sea turtles and whales. Potential adverse effects on listed species were analyzed on aspects of the fishery identified to have potential adverse impacts including vessel traffic, gear deployment and retrieval, entanglement in FADs, and removal of fish biomass from the pelagic ecosystem (NMFS 2006). The purse seine effort that was considered in the Biological Opinion was based on the general trend of purse seine fishing effort being concentrated north and northwest of American Samoa.

Under any of the alternatives, if there were to be a large increase in protected species interactions in the U.S. EEZ around American Samoa, NMFS would need to reinitiate consultation in accordance with section 7 of the ESA. Future consultations and any ensuing conservation measures would help to ensure that any effects of fisheries on listed species would not be likely to jeopardize the survival and recovery of protected marine resources.

8.3 Impacts on Marine Habitat

None of the alternatives are expected to result in any increased gear loss over existing conditions or any additional impacts to marine habitats. Longline fishing occurs in pelagic waters within the upper portion of the water column and is not known to have any documented impacts on habitat during fishing operations. Gear loss, however, does occur in longline fisheries and has the potential to impact reef or other habitats. Purse seining generally has very little direct effect on the habitat (AG 2009). Purse seine fishing using FADs may result in loss of FADs, or FAD material, which could end up as marine debris. Marine debris has the potential to negatively impact reef and other coastal marine habitat. No alternative is expected to change current FAD

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use and gear loss frequencies.

All longliners occasionally lose hooks and other gear while fishing. Fishermen do try to recover all gear, and are normally successful as the floats used in the fishery are marked to be visible from distance, even at night. Based on unpublished data from NMFS PIFSC, an average of 38,426 hooks (range: 14,215-49,370) were lost annually between 2001 and 2009 within the action area, or an average of about 7.4 hooks per set. Lost hooks are unlikely to have a major impact to the physical marine environment, being composed of steel. Depending on quality, the hooks will corrode, although hooks on the deep sea bed in water just above freezing, will corrode more slowly, and stainless steel hooks will corrode at a slower rate than non-stainless steel hooks.

8.4 Impacts on Fishery Participants and Fishing Communities

The continuation of separation of large vessel longline fleet from the single alia longline fleet and coastal trollers operating from Tutuila and the Ma'nua Islands will ensure a measure of protection for small vessels. This includes minimizing the potential for physical interactions between the longlines of large and small vessels and resource depletion by the proximity of large and small vessels operating within the same fishing grounds.

Under the preferred alternative, the area of the southern large pelagic fishing vessel closure will no longer be an incongruent with the boundaries of the Rose Atoll MNM and the LPVA, which should reduce any confusion about where vessels can fish. Reduction of this incongruence should minimize the regulatory burden on fishermen since the LPVA and the Rose Atoll MNM are two different marine areas established for different management purposes, but aligning their boundaries should reduce any confusion about where longline fishermen can fish. The encompassing by the LPVA southern segment of the banks and seamounts used by commercial and recreational trollers means that these fishing opportunities continue to be available to these sectors without competition from the longline fishery.

The largest net gain of fishable waters will be around Swain Island, which is inhabited by less than ten people, leading a subsistence lifestyle and dependent on copra harvesting⁵. The remaining 25 nm large vessel area closure maintains a boundary between the islands near shore pelagic resources and the longline fishery. As noted previously, reduction to 12 nm under alternative 3b may bring longline vessels close enough to Swains whereby there may be the possibility of competitive interactions between the longline fisheries and troll fishing around Swains, which target species such as skipjack, yellowfin, mahimahi, and wahoo caught incidentally by the longline fishery. The impacts on the longline fishery in terms of catch improvements in catch rates and income are unknown at this point, but an increase in the fishable area should on balance be positive since it should have an ameliorating influence on hook densities and completion for albacore.

8.5 Impacts on Biodiversity and Ecosystem Function

There are no known large and adverse impacts on biodiversity and the pelagic ecosystem

⁵ http://en.wikipedia.org/wiki/Swains_Island

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function occurring as a result of the troll, longline, and purse seine fisheries in the EEZ around American Samoa. Purse seine fishing activity occurs in the water column away from the sea bottom and targets large pelagic fish. Longline and purse seine fishing removes top predators, such as tunas, which likely has some ecosystem impacts; however, there is no indication of negative impacts from this fishery. At this time the stock assessment of South Pacific albacore stocks indicate it to be sustainable, as described in Section 8.5.1

8.6 Impacts on Enforcement and Administration

Large (>50ft) longline and purse seine vessels are required to carry VMS beacons through which their activities are monitored by the U.S. Coast Guard and the NMFS Office of law enforcement. None of the alternatives considered here would greatly increase enforcement and administration costs. The preferred alternative should ease the administrative burden by reducing the degree of incongruence between two spatially manage areas, and reduce the regulatory burden on fishermen and confusion about which waters are closed to fishing.

8.7 Impacts on Public Health and Safety

No alternative would require participants to change the way they currently fish, and therefore, no impacts on public health and safety are anticipated. Under every alternative, all fishing vessels would continue to be required to adhere to all applicable regulations which include considerations for safety-at-sea, and therefore, no impacts to safety are expected to occur.

8.8 Other Impacts

8.8.1 Cumulative Impacts

Cumulative impacts must be considered pursuant to the Council of Environmental Quality (CEQ) regulations 40 CFR 1508.7 which define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

There are wide-ranging factors (that change over time) that affect fishing participants as well as fishing communities. Current factors include high fuel costs, increased seafood imports, and restricted access to traditional fishing grounds. High fuel costs affect fishing participants in that it is simply increasingly expensive to go fishing. The effect is that fishery participants reduce fishing trips, switch to less fuel-intensive fisheries, or simply do not go fishing at all. The high price of fuel would not interact with the proposal to require gear modifications and make the proposal more likely to have a large and adverse effect on the environment.

In 2010, based on action by the WCPFC, the Western Pacific Fishery Management Council recommended establishing a 2,000 mt bigeye tuna catch limit for the three U.S. territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands through a

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draft amendment to the Pelagic Fisheries Ecosystem Plan. Language under WCPFC Conservation and Management Measure 2010-01 states that countries pursuing responsible fisheries development would have no limit to their bigeye tuna catch, or if already fishing for bigeye, a limit up to 2,000 mt would apply. The Council decided to take a precautionary approach in the draft amendment and has recommended establishing the 2,000 mt limit for each of the three territories. The proposed bigeye tuna limit of 2,000 mt would not interact with the proposed changes to area closure boundaries.

Under the same measure, the Council is proposing giving the three U.S. territories the authority to lease 750 mt of their 2000 mt allocation of bigeye tuna through a domestic charter vessel fishing arrangement in order to obtain funds for fisheries development. The charter arrangement would not require all bigeye catch to be landed in the territory, but would require a minimum of three landings by the chartering party, contingent on suitable infrastructure to deal with the catch. This amendment is being considered primarily for the Hawaii-based longline fishery, which is subject to bigeye catch limits in both the WCPO (see section 8.5.4). If a longline vessel with a Hawaii limited entry permit was fishing on the high seas under such an arrangement it would not be subject to the provisions of this amendment. If the vessel was fishing within the U.S. EEZ around American Samoa, then the gear modifications required by this amendment would apply.

There are no Class B vessels (40.1-50ft) operating in the American Samoa longline fishery and these six permits are available. Proposed changes recommended by the Council would increase accessibility for these permits and there may be interest by fishermen from Hawaii to obtain an American Samoa longline permit, even though it must be attached to a fishing vessel, since dual permit holders operating primarily from Hawaii can have their high seas bigeye tuna catch assigned to American Samoa's proposed 2,000 mt bigeye tuna catch limit (74 FR 63999; Dec. 7, 2009).

There may thus be interest in acquiring the Class B permits, either to land bigeye in Hawaii without it counting towards the U.S./Hawaii annual catch limit of 3,763 mt, or because bigeye catches in American Samoa have recently been about 10-20 percent of the proposed 2,000 mt annual limit that would be established through the draft amendment and there is room for increased catches (WPRFMC 2010, and unpublished American Samoa 2009 Pelagics annual report module). Although any longline fishing vessel with a Class B permit would need to be 40.1 to 50 ft in length, there are conventional monohull vessels of this size class in the Hawaii fishery, and it is likely that similar sized vessels could operate in American Samoa.

Other Council actions with respect to pelagic fisheries management in American Samoa include an amendment to the Pelagics FEP which would create a 75 nm purse seine area closure around the islands of the American Samoa archipelago, and another amendment which prohibits the use of FAD sets by purse seiners in the U.S. EEZ waters of the western Pacific. Limitation of purse seine fishing in the U.S. EEZ around American Samoa may not substantially impact the longline fishery in terms of its main target catch, albacore, since the target of purse seining is skipjack, and to a lesser extent, juvenile yellowfin.

The main impetus for the purse seine measures were to give a measure of protection to the small vessel commercial and recreational troll fishery which operates out of Tutuila and targets

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skipjack and a variety of other pelagic species. As noted in section 9.2.4, skipjack price fluctuations mean that at times its value equals or even exceeds that of albacore and thus there could be benefits to the longline fleet from limitations to purse seine fishing in the U.S. EEZ around American Samoa to reduce catch competition. However, as noted in various sections of this amendment, the requirement to maintain all hooks below 100 m will likely reduce the catch rates of skipjack possibly negating any advantage to the longliners from purse seine limitation.

8.8.2 Climate Change Impacts

In its 2007 report, the Intergovernmental Panel on Climate Change (IPCC) state that: “Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level (IPCC 2007).” Climate change and potential sea level rise may affect sea turtles and other listed species, human communities, target or non-target stocks, marine ecosystems, EFH, and other habitats found in and around American Samoa.

A more complete summary of climate change and climate change impacts can be found online at http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#1.

Climate change may impact the availability of tunas and this may in turn impact all pelagic fisheries; however, how and to what extent is not known. Climate change would not adversely affect the Council’s ability to achieve the management objectives of this proposed action. Future impacts of climate change have been considered in view of the potential cumulative impacts on fishery target and non-target species and protected resources.

Nothing in the proposed action will affect the distribution of the target pelagic species of the troll, longline, or purse seine fisheries that operate in the U.S. EEZ around American Samoa. None of the alternatives considered would result in large operational changes in any of these fisheries around American Samoa that would result in an increase in fuel consumption or emissions.

8.9 Future Federal Actions

Other related Council actions expected to occur in the foreseeable future in fisheries occurring in waters around American Samoa include amendments to the Pacific Pelagics FEP including those to: manage American Samoa longline vessels within the bigeye tuna catch limits for Pacific Islands Territories; modify the American Samoa limited entry longline permit system; and exclude purse seine vessels from operating within 75 nm around American Samoa. There is under consideration alternatives to combine vessel class sizes, however, none of the proposed actions in and of themselves would enable the longline fishery in American Samoa to expand beyond the maximum number of permits (60) delineated in the limited entry program. These actions may result in impacts to the human environment or to communities which will be analyzed in the respective amendment documents.

In addition, there is a proposal to enlarge sanctuary waters around American Samoa through

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expansion of Fagatele Bay National Marine Sanctuary. These areas may add further protection to green sea turtles through restricting human activities. With regards to impacts to protected species, if needed, separate consultations pursuant to section 7 of the ESA will be conducted on these future management actions.

9.0 Consistency with the MSA and Other Laws

9.1 Consistency with National Standards

Section 301 of the Magnuson-Stevens Act requires that regulations implementing any FMP or FMP amendment be consistent with the ten national standards listed below.

National Standard 1 states that 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.

The preferred alternative considered in this amendment is consistent with NS1 as the fishery may continue to achieve the optimum yield of albacore tuna and incidentally caught pelagic species, while avoiding overfishing. See Sections 8.5 for further information on the status of the target stock and other tuna stocks.

National Standard 2 states that conservation and management measures shall be based upon the best scientific information available.

The preferred alternative considered in this amendment is consistent with NS2 because the best available information, such as observer data, fishery logbook data and most recent GIS information was used in developing and analyzing the alternatives.

National Standard 3 states that, 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 preferred alternative considered in this amendment is consistent with NS3 in that it does not directly affect management of South Pacific albacore tuna which is the target stock in this fishery. This action proposes to modify the current LVPA around the islands of American Samoa. This action does not interfere with any existing management measures which manage the target stock. The target stock's range extends throughout the western and central Pacific, and thus, it is managed on a domestic and an international basis through participation in regional tuna fishery management organizations.

National Standard 4 states that conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive

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share of such privileges.

The preferred alternative considered in this amendment is consistent with NS4 because it does not discriminate between residents of different states, nor does it allocate or assign fishing privileges.

National Standard 5 states that conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

The preferred alternative considered in this amendment is consistent with NS5 in that it intends to consider efficiency in the fishery such that the large vessel area closures are modified with minimal effect on the target species. The preferred alternative does not have economic allocation as its sole purpose.

National Standard 6 states that conservation and management action shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources and catches.

The preferred alternative considered in this amendment is consistent with NS6 in that consideration was given to variations and contingencies in fishery resources and catches. This limited entry fishery is largely targeting the same resource; therefore, implementing measures to modify the large pelagic fishing vessel area closure boundaries would benefit all participants. The fishery is monitored and will continue, which would allow for responses to changes in the fishery, including future management actions.

National Standard 7 states that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The preferred alternative considered in this amendment is consistent with NS7 by proposing measures to best achieve the objective of modifying the southern portion of the large pelagic vessel area closure to be congruent with those of the Rose Atoll MNM, without substantially changing the size of this area. The larger reduction of the closed area around Swains reflects the need to implement an area closure more consistent with the limited volume of fishing by the small number of people living on this island. These measures would not duplicate any other existing management measures in this fishery.

National Standard 8 states that conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

The objective of this amendment is to maintain a viable longline fishery in American Samoa by proactively and cooperatively instituting measures to maintain the productivity of the longline fishery, while protecting the opportunities for small scale pelagic fishing in the nearshore waters of American Samoa. As the longline fishery provides the people of American Samoa various

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economic benefits, ensuring that the fishery persists is consistent with NS8. In particular, the preferred alternative is seen as having the best cost-benefit ratio of the all the alternatives to maintain a viable fishery to maximize benefits for the affected communities.

National Standard 9 states that conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided minimize the mortality of such bycatch.

The preferred alternative considered in this amendment is consistent with NS9 because the measures will not modify fishermen behavior or fishing methods which may lead to any increases in bycatch.

National Standard 10 states that conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The preferred alternative considered in this amendment would not pose safety risks to fishery participants in the American Samoa longline fishery. Safety of participants was given consideration in determining how to best meet the purpose and need while continuing the fishery.

9.2 National Environmental Policy Act

This amendment has been written and organized to meet the requirements of the National Environmental Policy Act and thus is a consolidated document including an Environmental Assessment, as described in NOAA Administrative Order 216-6, Section 603.a.2.

9.2.1 Purpose and Need

The purpose and need for this action is described in Section 4.0.

9.2.2 Alternatives Considered

The alternatives considered for this action are described in Section 7.0.

9.2.3 Affected Environment

The affected environment for this action is described in Section 8.0.

9.2.4 Impacts of the Alternatives

The expected impacts of the alternatives considered in this action are described in Section 9.0.

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9.3 Executive Order 12866

To meet the requirements of Executive Order 12866 (E.O. 12866), NMFS requires that a Regulatory Impact Review (RIR) be prepared for all regulatory actions that are of public interest. This review provides an overview of the problem, policy objectives, and anticipated impacts of regulatory actions, and ensures that management alternatives are systematically and comprehensively evaluated such that the public welfare can be enhanced in the most efficient and cost effective way.

In accordance with E.O. 12866, the following is set forth: (1) This action is not expected to have an annual effect on the economy of more than \$100 million or to adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety; or state, local or tribal governments or communities; (2) This action is not likely to create any serious inconsistencies or otherwise interfere with any actions taken or planned by another agency; (3) This action is not likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; (4) This action is not likely to raise novel or policy issues arising out of legal mandates, or the principles set forth in the Executive Order. Based on the information contained in this Pelagics FEP amendment, the initial findings of this action are determined to not be significant under E.O. 12866.

9.4 Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedures Act (APA) (5 U.S.C. Subchapter II) which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, NMFS is required to publish notification of proposed rules in the Federal Register and to solicit, consider and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day waiting period from the time of a final rule is published until the rule become effective, unless an exemption is applicable. This amendment complies with the provisions of the APA through the Council's use of public meetings, requests for comments, and consideration of comments. To implement this amendment, NMFS will publish a proposed rule and request public comments.

9.5 Coastal Zone Management Act

The Coastal Zone Management Act requires a determination that a recommended management measure will have no effect on the land, water uses, or natural resources of the coastal zone, or is consistent to the maximum extent practicable with an affected state's enforceable coastal zone management program. NMFS will make such a determination to the appropriate state government agencies in American Samoa for review and concurrence.

9.6 Environmental Justice

On February 11, 1994, President William Clinton issued Executive Order 12898 (E.O. 12898), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." E.O. 12898 provides that "each Federal agency shall make achieving

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environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” E.O. 12898 also provides for agencies to collect, maintain, and analyze information on patterns of subsistence consumption of fish, vegetation, or wildlife. That agency action may also affect subsistence patterns of consumption and indicate the potential for disproportionately high and adverse human health or environmental effects on low-income populations, and minority populations. A memorandum by President Clinton, which accompanied E.O. 12898, made it clear that environmental justice should be considered when conducting NEPA analyses by stating the following: “Each Federal agency should analyze the environmental effects, including human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA⁶.

The preferred alternative would modify the LVPA to eliminate the incongruence with the Rose Atoll MNM, while maintaining protection for small vessel pelagic fisheries in Tutuila and the Ma’nua Islands; and reducing the area closure around Swains, while maintaining protection for the limited volume of pelagic troll fishing around this island. This proposed action would impact all participants on an equal basis and would not have any unintended impacts to human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes.

9.7 Information Quality Act

The information in this document complies with the Information Quality Act and NOAA standards (NOAA Information Quality Guidelines, September 30, 2002) that recognize information quality is composed of three elements: utility, integrity, and objectivity. National Standard 2 of the Magnuson-Stevens Act states that an FMP's conservation and management measures shall be based upon the best scientific information available. In accordance with this national standard, the information product incorporates the best biological, social, and economic information available to date, including the most recent biological information on, and assessment of, the pelagic fishery resources and protected resources, and the most recent information available on fishing communities, including their dependence on pelagic longline fisheries, and up-to-date economic information (landings, revenues, etc.). The policy choices, i.e., proposed management measures, contained in the information product are supported by the available scientific information. The management measures are designed to meet the conservation goals and objectives of this amendment to the Pelagics FEP and the Magnuson-Stevens Act. The data and analyses used to develop and analyze the measures contained in the information product are presented in this amendment. Furthermore, all reference materials utilized in the discussion and analyses are properly referenced within the appropriate sections of the environmental assessment. The information product was prepared by Council and NMFS staff based on information provided by NMFS Pacific Islands Fisheries Science Center (PIFSC) and NMFS Pacific Islands Regional Office (PIRO). The information product was reviewed by

⁶ Memorandum from the president to the Heads of Departments and Agencies. Comprehensive Presidential Documents No. 279 (February 11, 1994).

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PIRO and PIFSC staff, and NMFS Headquarters (including the Office of Sustainable Fisheries). Legal review was performed by NOAA General Counsel Pacific Islands and General Counsel for Enforcement and Litigation for consistency with applicable laws, including but not limited to the Magnuson-Stevens Act, National Environmental Policy Act, Administrative Procedure Act, Paperwork Reduction Act, Coastal Zone Management Act, Endangered Species Act, Marine Mammal Protection Act, and Executive Orders 13132 and 12866.

9.8 Paperwork Reduction Act

The purpose of the Paperwork Reduction Act (PRA) is to minimize the paperwork burden on the public resulting from the collection of information by or for the Federal government. The PRA is intended to ensure the information collected under the proposed action is needed and is collected in an efficient manner (44 U.S.C. 3501(1)). None of the alternatives establish any new permitting or reporting requirements, and is therefore not subject to the provisions of the PRA.

9.9 Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601 et seq.) requires government agencies to assess and present the impact of their regulatory actions on small entities including small businesses, small organizations, and small governmental jurisdictions. The assessment is done by preparing a Regulatory Flexibility Analysis. An Initial Regulatory Flexibility Analysis will be included in the proposed rule.

9.10 Endangered Species Act

Section 8.6 of this document describes the threatened and endangered species found in the action area of the American Samoa-based longline fishery. The ESA can allow a limited take of listed sea turtles during the otherwise lawful longline fishery through a biological opinion (BiOp) prepared by NMFS pursuant to Section 7 of the ESA, as amended. NMFS' biological opinion on the Western Pacific Pelagics FMP which included the American Samoa-based pelagic longline fishery was completed in 2004 (NMFS 2004). The 2004 biological opinion concluded that continued operation of the American Samoa-based pelagic fisheries, among others, were not likely to jeopardize the continued existence of green, loggerhead, leatherback or olive ridley sea turtles. In addition, the opinion authorized the incidental take of 6 hardshell turtles, including one mortality; and take of one leatherback turtle with zero mortalities. Hardshell turtles are defined as including green, hawksbill, loggerhead, and olive ridley turtles. This amount of take is the annual number of sea turtles expected to be captured, injured, or killed in the pelagic fisheries based out of American Samoa.

As the expected take in terms of mortalities has been exceeded, NMFS PIRO prepared a new stand alone BiOp for the American Samoa longline fishery completed on September 16, 2010. The 2010 BiOp considers and analyzes the measures proposed in the Council's preferred alternative in this amendment, intended to reduce the potential for further interactions between longlines and sea turtles. The BiOp concluded that the annual numbers of interactions and mortalities expected to result from implementation of the proposed action for a 3-year period is incidental take of up to 45 green sea turtles over three years (average of 15 interactions per year

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with 41 mortalities). The occasional hooking and entanglement (no more than 1 every 3 years per species) of hawksbill, leatherback, and olive ridley turtles is also expected (NMFS 2010). If the total number of authorized sea turtle interactions included in the incidental take statement (ITS) during any consecutive 3-year period is exceeded, re-initiation of consultation will be required (50 CFR 402.16). After implementation of the proposed action and the period of years 1 through 3 has ended, a new 3-year ITS period will begin with years 2 through 4, and so on.

The Council has drafted an amendment to the Pelagics FEP, and currently under review, which requires all longline vessels greater than 40ft in length to set all hooks below 100m depth⁷. The 2010 BiOp (NMFS 2010) expects this will likely jeopardize the continued existence of any listed species or cause any adverse modification to their associated habitats. The proposed fishery management alternatives would not have any effect on critical habitat, because none has been designated in American Samoa.

9.11 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) prohibits, with certain exceptions, the take of marine mammals in the U.S. and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States. The MMPA gives the Secretary of Commerce authority and duties for all cetaceans (whales, dolphins, and porpoises) and pinnipeds (seals and sea lions, except walruses). The MMPA requires NMFS to prepare and periodically review stock assessments of marine mammal stocks.

Under section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that classifies U.S. commercial fisheries into one of three categories. These categories are based on the level of serious injury and mortality of marine mammals that occurs incidental to each fishery. Specifically, the MMPA mandates that each fishery be classified according to whether it has frequent, occasional, or a remote likelihood of or no known incidental mortality or serious injury of marine mammals. The American Samoa longline fishery is a Category II fishery (occasional serious injury and mortality) in the 2010 List of Fisheries (74 FR 58859; November, 16, 2009) and this amendment makes no changes to allowable amount of fishing except to require deep-setting only in the American Samoa longline fishery which may deter marine mammal interactions which typically occur in the upper waters, therefore, it does not require a MMPA category re-designation or other action.

Vessel owners and crew that are engaged in Category II fisheries may incidentally take marine mammals after registering or receiving an Authorization Certificate under the MMPA, but they are required to: 1) report all incidental mortality and injury of marine mammals to NMFS, 2) immediately return to the sea with minimum of further injury any incidentally taken marine mammal, 3) allow vessel observers if requested by NMFS, and 4) comply with guidelines and prohibitions under the MMPA when deterring marine mammals from gear, catch, and private property (50 CFR 229.4, 229.6, 229.7). The MMPA registration process is integrated with

⁷ Amendment 5 to the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region Measures to Reduce Interactions between the American Samoa Longline Fishery and Green Sea Turtles Including an Environmental Assessment, December 21, 2010. Western Pacific Regional Fishery Management Council, Honolulu, Hawaii.

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existing state and Federal licensing, permitting, and registration programs. Therefore, individuals who have a state or Federal fishing permit or landing license, such as the American Samoa limited entry longline permit, are currently not required to register separately under the MMPA.

In addition, fishers participating in a Category I or II fishery are required to accommodate an observer onboard their vessel(s) upon request (50 CFR 229.7); and fishers participating in a Category I or II fishery are required to comply with any applicable take reduction plans. NMFS may develop and implement take reduction plans for any Category I or II fishery that interacts with a strategic stock.

See Sections 8.6.2 and 8.6.3 of this document for descriptions of marine mammals found around American Samoa. Section 9.0 provides an analysis of the anticipated impacts on these species under each of the alternatives considered by the Council. The Council expects that the alternatives would not adversely affect any marine mammal populations or habitat; however, at this time there are very little data on the few marine mammal interactions in this fishery from which to assess potential impacts and regarding marine mammal habitat in U.S. EEZ waters around American Samoa.

9.12 Executive Order 13132 – Federalism (E.O. 13132)

This action does not contain policies with federalism implications under E.O. 13132.

9.13 Essential Fish Habitat

The preferred alternative is not expected to have adverse impacts on essential fish habitat (EFH) or habitat areas of particular concern (HAPC) for species managed under all the Western Pacific Fishery Ecosystem Plans. EFH and HAPC for these species groups has been defined as presented in

Table 6. The alternatives will not adversely affect EFH or HAPC for any managed species as they are not likely to lead to substantial physical, chemical, or biological alterations to the habitat, or result in loss of, or injury to, these species or their prey. The alternatives are not anticipated to cause damage to the ocean or coastal habitats.

Table 6: EFH and HAPC for species managed under the Fishery Ecosystem Plans

SPECIES GROUP	EFH (juveniles and adults)	EFH (eggs and larvae)	HAPC
Pelagics	Water column down to 1,000 m	Water column down to 200 m	Water column down to 1,000 m that lies above seamounts and banks.

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SPECIES GROUP	EFH (juveniles and adults)	EFH (eggs and larvae)	HAPC
Bottomfish	Water column and bottom habitat down to 400 m	Water column down to 400 m	All escarpments and slopes between 40-280 m, and three known areas of juvenile opakapaka habitat
Seamount Groundfish	(Adults only): water column and bottom from 80 to 600 m, bounded by 29°-35°N and 171°E - 179°W	(Including juveniles): epipelagic zone (0-200 m) bounded by 29°-35°N and 171°E - 179°W	Not identified
Precious Corals	Keahole, Makapuu, Kaena, Wespac, Brooks, and 180 Fathom gold/red coral beds, and Milolii, S. Kauai and Auau Channel black coral beds	Not applicable	Makapuu, Wespac, and Brooks Bank beds, and the Au'au Channel
Crustaceans	Lobsters Bottom habitat from shoreline to a depth of 100 m Deepwater shrimp The outer reef slopes at depths between 300-700 m	Water column down to 150 m Water column and associated outer reef slopes between 550 and 700 m	All banks with summits less than 30 m No HAPC designated for deepwater shrimp
Coral Reef Ecosystems	Water column and benthic substrate to a depth of 100 m	Water column and benthic substrate to a depth of 100 m	All Marine Protected Areas identified in FEPs, all PRIA, many specific areas of coral reef habitat (see FEPs)

Note: All areas are bounded by the shoreline, and the outward boundary of the EEZ, unless otherwise indicated.

10.0 Draft Proposed Regulations

§ 665.37 American Samoa pelagic fishery area management.

(a) Large vessel prohibited areas. A large vessel of the United States may not be used to fish for

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Pacific pelagic management unit species in the American Samoa large vessel prohibited areas as defined in paragraphs (b) and (c) of this section, except as allowed pursuant to an exemption issued under

§ 665.38.

(b) Tutuila Island, Manu'a Islands, and Rose Atoll (AS-1). The large vessel prohibited area around Tutuila Island, the Manu'a Islands, and Rose Atoll consists of the waters of the EEZ around American Samoa enclosed by straight lines connecting the following coordinates⁸:

Point	S.lat	W. long
-EEZ bound -	13° 41' S	EEZ boundary
AS -1-A	13° 41' S	167° 17' W
AS -2-A	15 °24' S	167° 17' W
AS -3-A	15° 24' S	169° 1' W
AS -4-A	15° 13' S	169° 1' W
West-B EEZ -	15° 13'S	EEZ boundary

From point AS-1-A along latitude 13° 41' from 167 17' W eastwards until intersecting the U.S. EEZ boundary with Samoa, and from point AS-2-A eastwards along latitude 15 °24' S from 167 17'

(c) Swains Island (AS-2). The large vessel prohibited area around Swains Island consists of the waters of the EEZ around American Samoa enclosed by straight lines connecting the following coordinates⁹:

Point	S.lat	W. long
NW-A2	10° 40' S	171° 30' W
NE-B2	10° 40' S	170° 40' W
SE-C2 W	11° 30' S	170° 40' W
SE-D2	11° 30' S	171° 30' W

§ 665.38 Exemptions for American Samoa large vessel prohibited areas.

(a) An exemption will be issued to a person who currently owns a large vessel, to use that vessel to fish for Pacific pelagic management unit species in the American Samoa large vessel prohibited management areas, if he or she had been the owner of that vessel when it was registered for use with a Western Pacific general longline permit and made at least one landing of Pacific pelagic management unit species in American Samoa on or prior to November 13, 1997.

⁸ Coordinates should be regarded as preliminary and subject to change

⁹ Coordinates should be regarded as preliminary and subject to change

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- (b) A landing of Pacific pelagic management unit species for the purpose of this section must have been properly recorded on a NMFS Western Pacific Federal daily longline form that was submitted to NMFS, as required in § 665.14.
- (c) An exemption is valid only for a vessel that was registered for use with a Western Pacific general longline permit and landed Pacific pelagic management unit species in American Samoa on or prior to November 13, 1997, or for a replacement vessel of equal or smaller LOA than the vessel that was initially registered for use with a Western Pacific general longline permit on or prior to November 13, 1997.
- (d) An exemption is valid only for the vessel for which it is registered. An exemption not registered for use with a particular vessel may not be used.
- (e) An exemption may not be transferred to another person.

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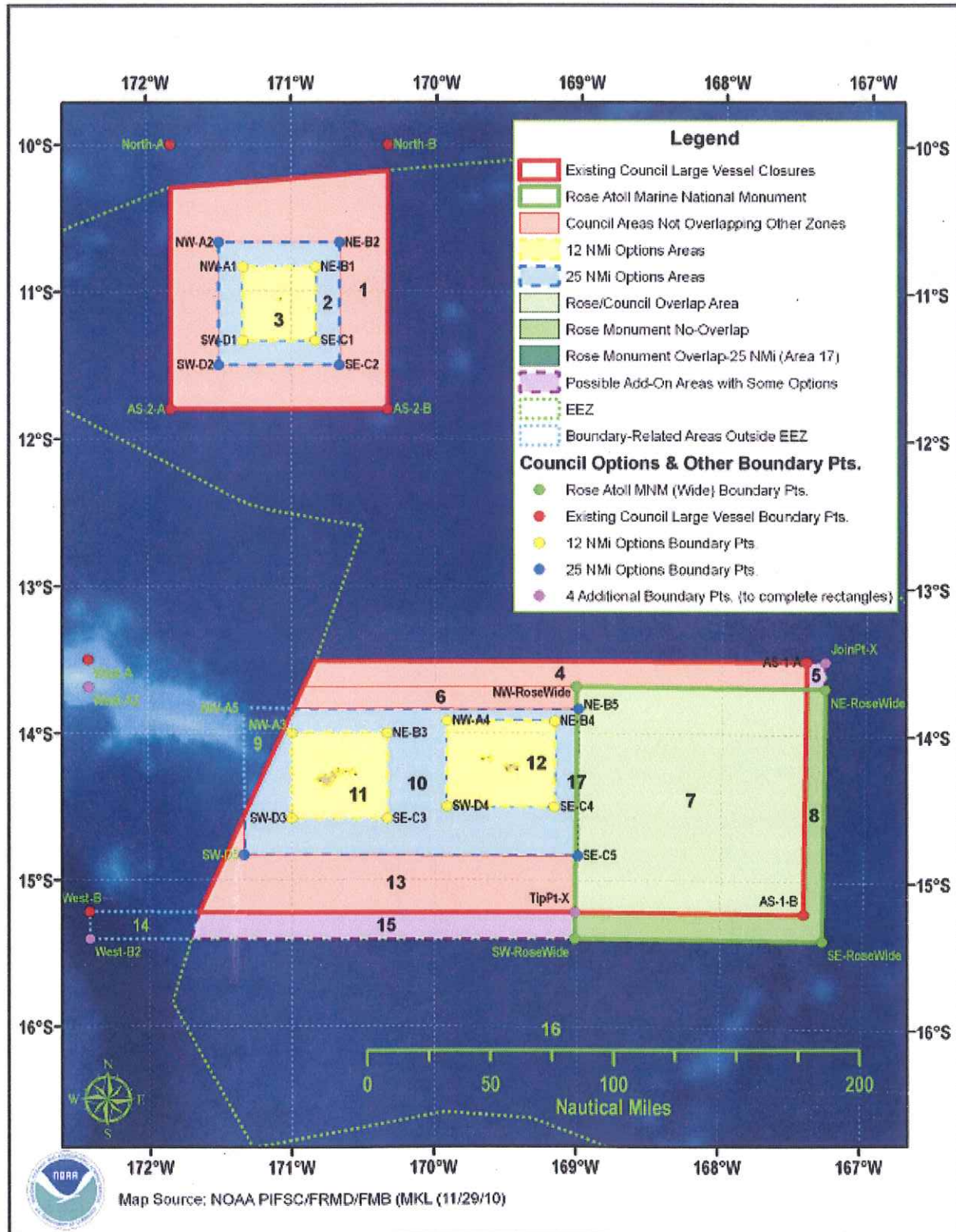
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APPENDIX 1. Geographic data used to generate the geometry and areas enclosed by the various alternatives for modifying the LVPA around American Samoa

Figure 14. Council LVPA Amendment Options and Boundary Points



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Table 7. Summary of the existing and potential fisheries management zones in the U.S. EEZ around American Samoa

Type	Geographic Area			%EEZ	Notes
	Sq. Meters	Sq. Km.	Sq. Naut. Miles		
Emerged Land					
Tutuila Islands	137,742,845	137.74	40.16	0.03%	Source Coastlines: TIGER Census
Tutuila	135,993,016	135.99	39.65		Source Coastlines: TIGER Census
Aunu'u	1,526,140	1.53	0.44		Source Coastlines: TIGER Census
Other Islets	223,689	0.22	0.07		Source Coastlines: TIGER Census
Manu'a Islands	58,098,157	58.10	16.94	0.01%	Source Coastlines: TIGER Census
Olosega	5,252,404	5.25	1.53		Source Coastlines: TIGER Census
Ofu	7,190,353	7.19	2.10		Source Coastlines: TIGER Census
Ta'u	45,502,089	45.50	13.27		Source Coastlines: TIGER Census
Other Islets	153,310	0.15	0.04		Source Coastlines: TIGER Census
Swain's	3,586,785	3.59	1.05	0.0009%	Source Coastlines: TIGER Census
Rose Atoll (emerged)	82,226	0.08	0.02	0.00002%	Source Coastlines: TIGER Census
Subtotal Emerged Lands		199.51	58.17	0.05%	
Water					Source EEZ: VLIZ 2009
WPRFMC Main Islands (no overlap)	48,692,430,889	48,692	14,194	11.99%	Am. Samoa Main Islands Longline Closed
WPRFMC/MNM (overlapping)	29,335,823,006	29,336	8,553	7.23%	Am. Samoa Main Islands Longline Closed
MNM Only (nonoverlapping)	6,205,969,541	6,206	1,809	1.53%	Rose Atoll Marine National Monument
WPRFMC Swains (no overlap)	28,300,407,572	28,300	8,251	6.97%	Swain's Longline Closed
Other EEZ (open)	293,221,104,147	293,221	85,490	72.23%	EEZ Only
Subtotal Submerged EEZ		405,748	118,296.53	99.95%	
Total EEZ		405,945	118,354.70		

* Adapted from a table provided to the Council in response to a February 2009 information request (IR-09-009)

Table 8. Detailed Additional Geographic Areas Relating to Options for Amending Council Large Vessel Closed Areas

Figure*	"Building Block" Area(s) **	Zone	Sq. Km.	Sq. NMi
6	7+8+17	Rose National Monument	35,542	10,362
2 & 6	4+6+7+10+11+12+13+17	WPRFMC Large Pelagic Vessel Closure - MSI	77,933	22,722
2	1+2+3	WPRFMC Large Pelagic Vessel Closure - Swains	28,300	8,251
6	8	Nonoverlap Monument Area - MSI (L)	6,206	1,809
6	5	Excluded Small NE Corner - MSI (small square)	294	86
6	4	Nonoverlap WPRFMC Upper Rectangle - MSI	7,323	2,135
6	15	Nonoverlap Excluded Lower Rectangle - MSI	5,711	1,665
7	4+5+6+7+8+10+11+12+13+15+17	Option 2a: Rhomboid (including areas 5 & 7)	90,144	26,282
8	6+7+8+10+11+12+13+15+17	Option 2b: Rhomboid (move down WPRFMC area)	82,527	24,061
9	6+7+8+10+11+12+13+17	Option 2c: Kapakahi Rhomboid (cut off upper WPRFMC)	76,816	22,396
10	2+3+7+8+10+11+12+17 (Incl. Rose)	Modified WPRFMC MSI - 25nm Rectangle (MSI) & Rhomboid (Swains)	69,877	20,373
10	11	Modified WPRFMC MSI - 12nm Western Rectangle	4,501	1,312
10	12	Modified WPRFMC MSI - 12nm Eastern Rectangle	5,166	1,506
11	2+3	Modified WPRFMC Swains - 25nm Rectangle	8,382	2,444
11	3	Modified WPRFMC Swains - 12nm Rectangle	3,015	879
	16	Remaining EEZ (less all option-related areas & emerged lands)	287,216	83,739

Table Legend

* Figure Numbers reference a Council document entitled "Potential Modifications to American Samoa Large Pelagic Fishing Vessel (> 50 ft) Closure" (10/25/10 Draft).

** Building Block Areas reference this report (IR-10-034; Figure 2)

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Table 9 Estimated Geographic Area of "Building Block" Zones Shown in Figure 14

Zone	Description	Sq. Km.	Sq. NMi
1	Existing Council Large Vessel	19,918	5,807
2	Council 25 NMi No-MNM Overlap	5,367	1,565
3	Council 12 NMi No-MNM Overlap	3,015	879
4	Council LV May Subtract	7,323	2,135
5	Additional NE Rectangle to Make Monument and Council NE Corner Congruent*	294	86
6	Existing Council Large Vessel	3,429	1,000
7	Rose MNM Overlap Council	29,136	8,495
8	Rose Monument No-Overlap	6,206	1,809
9	Bounded Area Outside EEZ	1,490	434
10	Council 25 NMi No-MNM Overlap	16,286	4,748
11	Council 12 NMi No-MNM Overlap	4,501	1,312
12	Council 12 NMi No-MNM Overlap	5,166	1,506
13	Existing Council Large Vessel	11,892	3,467
14	Bounded Area Outside EEZ	1,609	469
15	Council Area 7 Add-On	5,711	1,665
16	Remaining Open EEZ	287,216	83,739
17	Small Area of 25 NMi Overlapping Rose MNM	200	58