



**Options for the Establishment of Longline Albacore Catch Limits for the
Exclusive Economic Zone around American Samoa**

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I. Introduction

The American Samoa longline fishery (hereafter, the fishery) is managed under the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region (Pelagics FEP). The fishery primarily targets south Pacific albacore (SPALB). Most of the albacore caught by the fishery landed in Pago Pago for the processing at the local canneries.

SPALB is important to domestic longline fisheries of central South Pacific countries neighboring American Samoa, in terms of both domestic fisheries and for the revenue derived from foreign fishing access agreements. A substantial portion of the total catch of SPALB is offloaded in Pago Pago.

American Samoa plays a central role in the management of SPALB. The American Samoa longline fishery is a well-managed, highly monitored fishery that serves as example to other fisheries in the region. The tuna process facilities in Pago Pago make it a strategic port in the South Pacific.

The total catch of SPALB has more than doubled in the past decade, with about 82,000 mt caught in 2013, which is below the estimated Maximum Sustainable Yield (MSY) of approximately 99,000 mt (Piling et al. 2014). Although the stock is considered biologically healthy, catch rates of longline vessel targeting adult fish, when coupled with prevailing operating and ex-vessel prices, are resulting in conditions that are likely economically unsustainable. In other words, longline catch rates are higher than those associated with Maximum Economic Yield (MEY; Berger et al. 2014)

In 2013, the American Samoa longline fishery experienced a poor year, with its lowest catch rates of SPALB on record, and revenues that were unable to exceed operating costs. Other domestic longline fishery in neighboring South Pacific countries faced similar conditions. There is growing concern for the future of the SPALB and the domestic South Pacific longline fisheries which are primarily dependent on this stock.

The catch of the American Samoa longline fleet reached a maximum of about 6,000 mt (more than 300,000 fish) in 2002, and catches have declined since 2007. The catch per unit of effort (CPUE) has declined by 40% on average, and the 2013 catch rate is a record low and 70% less than the highest catch rate, recorded in 1996 (Figure 1). Albacore catches by the American Samoa longline fishery in 2013 were the lowest since the entrance of large vessels in the fishery in 2001.

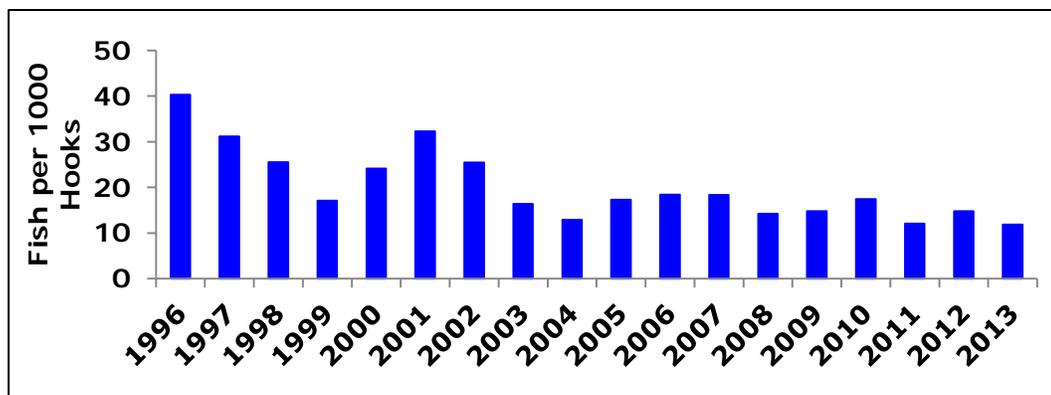


Figure 1: Time series of albacore CPUE in the American Samoa longline fishery 1996-2013

Source: NMFS WPacFIN¹ plus unpublished data

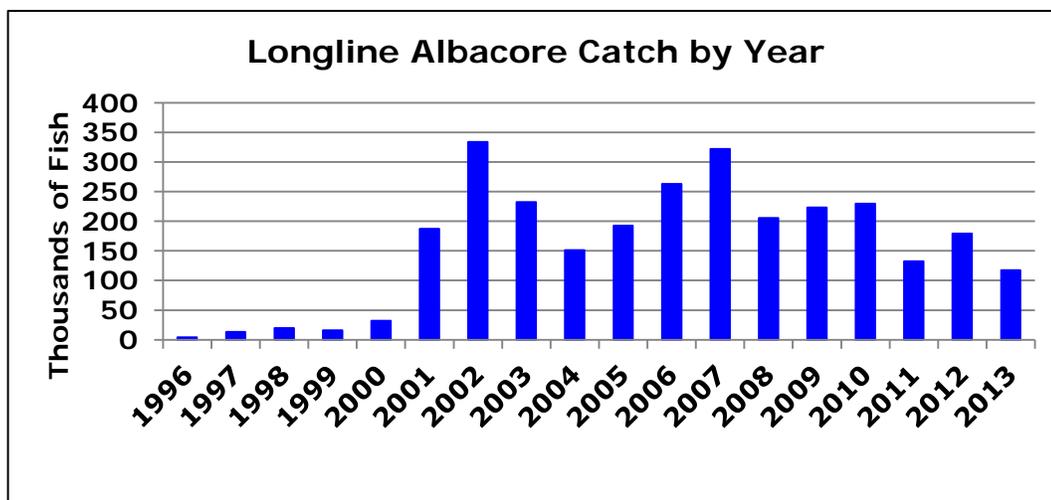


Figure 2: Time series of albacore landings by the American Samoa longline fishery 1996-2013

Source: NMFS WPacFIN plus unpublished data

¹ http://www.pifsc.noaa.gov/wpacfin/as/Pages/as_data_2.php

SPALB is a highly migratory species that requires international cooperation for effective management. In the Western and Central Pacific Ocean (WCPO), international management of highly migratory species including SPALB is conducted by the Western and Central Pacific Fisheries Commission (WCPFC). Existing international management measures have been ineffective to restrict the rapid increase SPALB catches in the last decade. Member countries of the Forum Fisheries Agency² (FFA) are proposing the following: 1) the establishment of EEZ-based catch limits; 2) flag-based high seas catch limits; and 3) a total catch limit of SPALB with the Western and Central Pacific Ocean.

II. Purpose and need

There is a need for coordinated, effective international management of SPALB. To meet this objective, high levels of cooperation among Pacific Island Countries and distant water fishing nations are required. The purpose of this action is the Council's consideration of EEZ-based SPALB catch limits that are consistent with the regional approach proposed by the FFA. Recognizing American Samoa's pivotal role in the region as strategic fish processing hub and its well-managed domestic longline fishery, advancing regional cooperation may also necessitate the need for American Samoa to seek observer or Associate Participant status to the Tokelau Arrangement.

III. Initial Actions

In recent years, Te Vaka Moana, which sub-regional cooperative of FFA members, has voiced concern about the rapid increase in SPALB catches and the economic condition of their domestic fleets targeting SPALB. American Samoa is centrally located in the middle of Te Vaka Moana members, and as such, plays an important role in sub-regional cooperation on the conservation and management of SPALB (see Figure 4). Te Vaka Moana members recognize American Samoa's pivotal role in the region and has invited American Samoa representatives to observe Te Vaka Moana meetings on several occasions. At the 10th Regular Session of the WCPFC (December 2013), Te Vaka Moana members introduced a draft SPALB conservation and management, which however, was not adopted.

At its 156th meeting (March 2013), the Council recommended continued cooperation with Te Vaka Moana³ (TVM) arrangement members, and for staff to facilitate American Samoa government and Council observer status in TVM meetings, with a goal of stronger WCPFC conservation and management measures of the South Pacific albacore fishery across the entire range of the stock.

² FFA members include: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.

³ Te Vaka Moana members include: Cook Islands, New Zealand, Niue, Samoa, Tokelau, and Tonga.

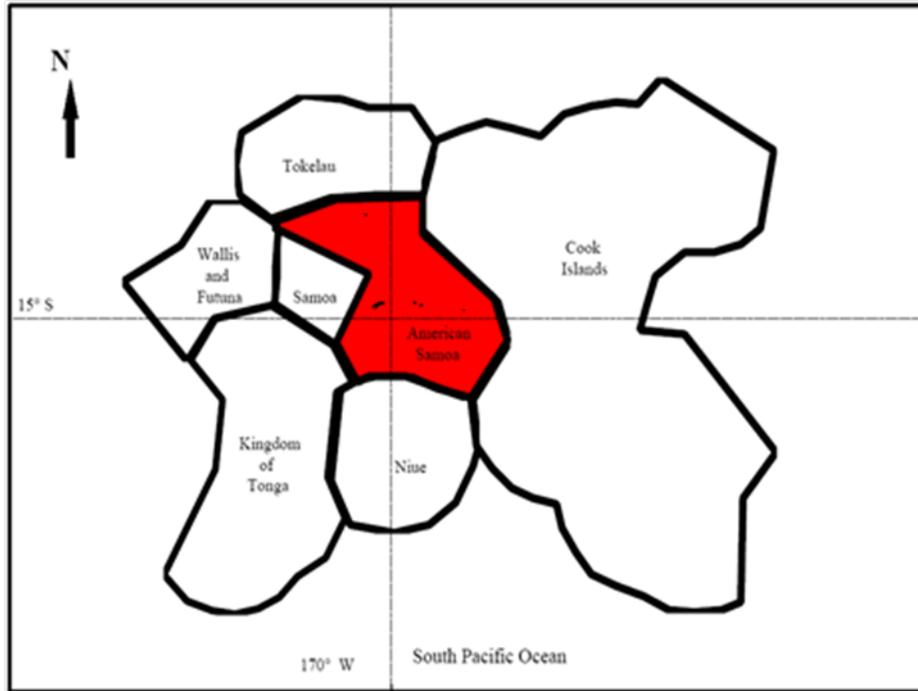


Figure 3: Map of EEZs bordering American Samoa
Source: WPFMC

IV. Options for Catch Limits of South Pacific Albacore Within the Exclusive Economic Zone Around American Samoa

For all options considered below, it is assumed that FFA countries will be adopting EEZ-based limits according to the framework established under the Tokelau Arrangement (See Appendix 1). It is also assumed that the WCPFC will be considering the adoption of SPALB high sea catch limits at its 11th regular session occurring in early December 2014.

The catch of SPALB in the EEZ around American Samoa has varied since the beginning of the American Samoa longline fishery in the late 1990s (See Table 1).

Table 1: Annual catches (metric tons) of SPALB within the EEZ around American Samoa, 2000-2013

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Catch (mt)	609	3375	5425	3257	2063	2091	3019	4542	3207	3541	3247	1975	2663	1863

Source: NMFS PIFSC IR-14-035

Option 1(a): No Action

Under the No Action option, the Council would maintain existing management measures applicable to the American Samoa longline fishery and not recommend an EEZ-based albacore catch limit.

Pros	Cons
<ul style="list-style-type: none"> • Would not require in-season monitoring of SPALB catch in the EEZ around American Samoa • Existing catches by American Samoa longline vessels having minimal impact on stock • Would not burden existing American Samoa longline fishery participants. 	<ul style="list-style-type: none"> • Would not support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield

Option 1(b): Establish an annual catch limit of 5,425 metric tons of albacore for the EEZ around American Samoa (highest level of SPALB catch reported from the EEZ)

Under this option, the Council would establish a SPALB annual catch limit of 5,425 mt for the EEZ around American Samoa. This limit would apply to all commercial fishing vessels operating in the EEZ.

Pros	Cons
<ul style="list-style-type: none"> • Would support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield. 	<ul style="list-style-type: none"> • Would require in-season monitoring of SPALB catch within the EEZ around American Samoa. • Unless longline catches are reduced across the range of the stock, catch limits for EEZ are unlikely to improve existing catch rates in EEZ and poor economic conditions experienced by American Samoa longline fishermen are likely to continue. • Impacts to American Samoa longline fishery participants would occur if limit is reached. • To be effective, the WCPFC would need to adopt a measure to limit high seas catches.

Option 1(c): Establish an Annual Catch Limit of 2,657 metric tons, which is the recent 5-year average catch of SPALB within the EEZ around American Samoa

Under this option, the Council would establish a SPALB annual catch limit of 2,657 mt for the EEZ around American Samoa. This limit would apply to all commercial fishing vessels operating in the EEZ.

Pros	Cons
<ul style="list-style-type: none"> • Would support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield. 	<ul style="list-style-type: none"> • Would require in-season monitoring of SPALB catch. • Unless longline catches are reduced across the range of the stock, catch limits for EEZ are unlikely improve existing catch rates in EEZ and poor economic conditions experienced by American Samoa longline fishermen likely to continue. • Impacts to America Samoa longline fishery participants would occur if limit is reached. • To be effective, the WCPFC would need to adopt a measure to limit high seas catches.

V. Options for the Consideration of the Tokelau Arrangement

The Council has been requested by FFA to consider the adoption of EEZ based limits in accordance to the Tokelau Arrangement as well as for American Samoa to obtain Associate Participant status (See Appendix 1).

It is understood that in order for American Samoa be an Associate Participant under the Tokelau Arrangement, the US State Department would lead the negotiations with the FFA. It is further understood that for American Samoa to obtain Associate Partnership status, there would have to be clearly articulated rules of engagement for American Samoa to formally participate in the arrangement. For example, any decision with respect to the management of fisheries within the US EEZ around American Samoa would require endorsement from the Council and United States.

Option 2(a)- No Action

Under this option, the Council would not request that the US State Department initiate negotiations with the FFA for American Samoa to obtain Associate Participant under the Tokelau Arrangement. Under this alternative, American Samoa would still have observer status to the FFA, but not observer status to meetings of Tokelau Arrangement members unless other otherwise specified.

Pros	Cons
<ul style="list-style-type: none"> • Would not require potentially complex negotiations with FFA on obtaining Associate Partnership status under the Tokelau Arrangement. • Would not require additional administrative costs to attend meetings related the Tokelau Arrangement. 	<ul style="list-style-type: none"> • Would not support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield. • May reduce potential operational and economic flexibility for American Samoa longline fishery participants if Associate Partnership status would involve multi-zone schemes or allocation pooling. • May reduce potential for American Samoa government and/or fishery participants to benefit from the potential establishment of tradable allocation rights. • May reduce American Samoa’s status as a regional hub for fishery processing through the loss of multi-national

	cooperative arrangements.
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Option 2(b)- Associate Participant Status Under Tokelau Arrangement

Under this option, the Council would request that the US State Department initiate negotiations with the FFA for Associate Participant status under the Tokelau Arrangement.

Pros	Cons
<ul style="list-style-type: none"> • Would support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield. • May increase potential operational and economic flexibility for American Samoa longline fishery participants if Associate Participant status would involve multi-zone schemes or allocation pooling. • May increase potential for American Samoa government and/or fishery participants to benefit from the potential establishment of tradable allocation rights. • May enhance American Samoa’s status as a regional hub for fishery processing through the participation in multi-national cooperative arrangements. 	<ul style="list-style-type: none"> • Would require potentially complex negotiations with FFA on obtaining Associate Participant status under the Tokelau Arrangement. • Would require additional administrative costs to attend meetings related the Tokelau Arrangement.

Option 2(c)- Observer Status Under Tokelau Arrangement

Under this option, the Council would request American Samoa be granted observer status to official Tokelau Arrangement meetings.

Pros	Cons
<ul style="list-style-type: none"> • Would support regional coordination with FFA countries with the long-term objective of producing catches associated with Maximum Economic Yield. • Would not require potentially complex negotiations with FFA on obtaining Associate Participant status under the Tokelau Arrangement. • Support American Samoa’s status as a regional hub for fishery processing through the participation in multi-national cooperative arrangements. 	<ul style="list-style-type: none"> • Would require additional administrative costs to attend meetings related the Tokelau Arrangement. • Unlikely to lead to increased operational and economic flexibility for American Samoa longline fishery participants as such benefits of involving multizone schemes an allocation pooling may only be reserved for Associate Participants and Arrangement members.

VI. Background Information

After being spawned in the tropical and sub-tropical waters in the South Pacific (i.e. north of 25° S), juveniles migrate south towards cooler waters in the vicinity of the sub-tropical convergence zone (at about 40°S). As a result of different movement patterns with respect to life stage, there is a latitudinal gradient in size distribution, with predominately small fish (<80 cm) at latitudes south of 35° S and large fish (>80 c) at latitudes north 30° S. Longline fisheries generally capture adult size albacore, whereas troll and other surface fisheries capture juvenile albacore.

The most recent stock assessment of SPALB indicates that the stock is in a healthy condition, with fishing mortality less than that associated with Maximum Sustainable Yield, and estimated spawning biomass above levels to produce MSY (Hoyle et al. 2011). The assessment indicates that fishing mortality on adult fish has increased considerably over the past decade, but that overall estimates of fishing mortality are well below FMSY (Figures 10 and 11) . Therefore, overfishing is not occurring. Spawning biomass levels remain well above SBMSY, indicating that the stock is not in an overfished state (see Figure 1).

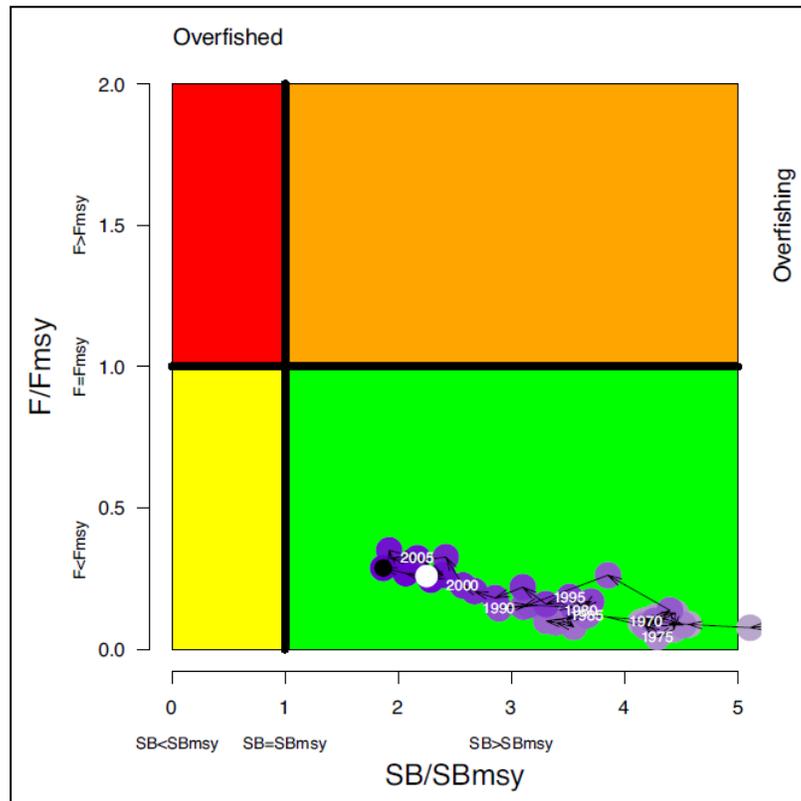


Figure 3: Kobe plot for SPAB showing the fishing mortality and spawning stock biomass relative to MSY. Source: SPC-OFP (2012)

Nevertheless, the current level of longline catch is estimated to be having a considerably higher impact on the portion of the stock vulnerable to the longline fishery, i.e. adult size fish. The assessment indicates that the current level of impact is about 70% for fish of the sizes taken in the northern longline fisheries, having increased sharply in recent years. From the results of the assessment, the WCPFC Scientific Committee concluded that any increases in catch or effort are likely to result in catch rate declines, especially relating to longline catches of adult albacore, with associated impacts upon vessel profitability (Hoyle et al. 2011).

The South Pacific albacore catch in the WCP-Convention Area in 2013 was approximately 71,000 mt (Piling et al. 2014). Longline fishing has accounted for most of the catch of this stock (> 75% in the 1990s, but > 90% in recent years), while the troll catch, for a season spanning November to April, has generally been in the range of 3,000–8,000 mt, although it has declined to <3,000 mt in recent years.

Catches by flag, EEZ, and high seas are indicated in Tables 2 and 3. Most of the catch SPALB occurs in the EEZs of Pacific Island countries, although the amount of high seas catch of SPALB has increased in recent years. High seas catch is mostly attributable to Chinese and Chinese Taipei vessels operating under their own flags or under charter arrangements with Pacific Island countries. Identifying catches to be either in zone or on the high seas is problematic given that the China and Chinese Taipei do not submit operational level data to the WCPFC for their high seas fishing operations, but rather submit aggregate data. However, current estimates indicate that more than half of the albacore caught by China and Chinese Taipei occurs on the high seas (Piling et al. 2014).

China and Chinese Taipei have the highest catch estimates of SPALB in 2013 (23,842 mt and 13,248 mt respectively). China has increased its estimated catch of SPALB in recent years, from an average of 4,453 mt in the years 2000 to 2007, to a recent average estimated catch of 16,763 mt, in the years 2008 to 2013.

Chinese Taipei SPALB catch estimates average 10,903 mt from 2000 to 2011, ranging from 16,064 mt in 2002 to 7,609 mt in 2008, with an estimated catch in 2013 of 13,248 mt (Table 3). The trends in the SPALB annual catch estimates for China and Chinese Taipei vessels over the past decade may be influenced by changes in targeting from bigeye tuna to albacore tuna, and vice-a-versa.

As mentioned earlier, most of the catch of SPALB is taken in the EEZs of Pacific Island countries. The EEZ of the Solomon Islands has the highest catch of SPALB, followed by Cooks Islands and Vanuatu. The catch estimate for SPALB in the Solomon Islands EEZ increased from 12,929 mt in 2009, to 21,938 mt in 2010, but was estimated to be 8,751 mt in 2013. The next highest estimated EEZ catch in 2013 are Cook Islands and Vanuatu, with 6,077 mt and 6054 mt, respectively. The EEZ of American Samoa has historically ranked in the top 5 of in the South Pacific Region in terms of albacore catches.

Table 2: Annual Longline SPALB Catches by EEZ

EEZ/High Seas	ANNUAL SOUTH PACIFIC ALBACORE LONGLINE CATCH ESTIMATES BY EEZ AND HIGH SEAS													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
American Samoa	626	3217	5353	3212	2019	2880	4078	4667	2963	3299	3125	2224	2606	1859
Australia	359	554	505	391	587	622	2526	1867	1256	1471	706	627	529	524
Cook Islands		9	1112	1854	2172	2282	1986	3670	2492	5413	5680	5525	10284	6077
Fiji	4524	7294	6239	4077	6161	5654	5797	3721	4552	5601	3769	5171	5053	4050
High Seas	12784	22178	28046	25646	23928	22618	18165	15189	20763	27855	23875	17086	24799	29096
Jarvis (USA)				53									0	
Kiribati	268	742	758	644	833	241	303	686	254	741	1034	561	1181	428
Non-attributed non-high seas area	4	4	1	19	11	12	4	5	2	24	6	5	7	
New Caledonia	885	1015	1160	1087	1367	1579	1348	1312	1484	1611	1923	1732	1700	1712
Niue			34			55	259	216	337	238	219			401
New Zealand	1334	2593	2522	2936	1246	602	496	277	382	422	460	418	266	302
French Polynesia	3463	4261	4555	3813	2210	2255	2849	3924	3064	3560	3482	3223	3590	3493
Papua New Guinea	105	72	82	645	1530	2182	1789	1920	509	865	806	720	1047	457
Solomon Islands	339	170	1074	932	2231	3001	6954	4922	8433	11619	20918	9859	11416	8751
Tokelau									121			90	130	
Tonga	858	1074	845	318	197	256	405	354	220	124	57	36	803	2104
Tuvalu	224	117	186	53	239	300	8	317	159	313	198	513	1091	1467
Vanuatu	2516	2759	2629	2812	3700	6957	8321	5717	6430	6174	5313	7408	4762	6054
Wallis and Futuna						34						3		
Western Samoa	4067	4820	4205	2253	1233	1263	2113	3113	2342	2816	2529	1415	2037	1640
Total	32356	50879	59306	50745	49664	52793	57401	51877	55763	72146	74100	56616	71301	68415

Source: Piling et al. 2014

Table 3: Annual longline catches by country

Flag	ANNUAL SOUTH PACIFIC ALBACORE LONGLINE CATCH ESTIMATES BY FLAG													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Australia	381	591	553	490	667	743	2591	1925	1277	1523	745	653	572	572
Belize	191	4050	1472	885	353	7	0	164	7	26	10	105	32	
Cook Islands		2	490	1358	1869	2371	2223	2644	2224	1551	2423	2182	2614	1310
China	2030	2495	2704	6002	5828	4026	7115	5424	15059	20100	12950	11868	24538	23842
Spain					2	2	0	0	33	35	6	3	2	2
Fiji	5363	7230	7279	6337	10938	11104	11474	6981	9262	12096	8744	9942	9478	8678
Federated States of Micronesia	0	0		0	0	0	0	0	0	0	1	1	168	669
Japan	2254	3358	2637	3146	4004	4652	3223	2806	2384	2812	2461	2136	2046	1450
Kiribati	0	0		0	0						66	236	356	180
Korea	591	1728	2850	1394	743	2167	786	1035	1135	1141	907	443	856	643
New Caledonia	895	1020	1165	1111	1468	1590	1358	1324	1506	1649	1939	1736	1715	1714
Niue						55	213	216	337	154	97			
New Zealand	1344	2614	2545	2971	1248	602	496	357	382	422	460	418	266	302
French Polynesia	3473	4261	4557	3846	2218	2426	2918	3957	3068	3560	3483	3225	3594	3512
Papua New Guinea	105	72	82	645	1530	2182	1740	1556	438	807	791	245	693	232
Portugal												4	1	67
Solomon Islands	224	54	121	95	207	0					9391	1245		
Tonga	862	1268	1189	611	182	283	414	390	220	124	57	34	20	13
Tuvalu												184	435	92
Chinese Taipei	9502	12800	16057	12187	8313	8616	8590	8592	7577	11473	13762	13103	11750	13248
United States	1075	3861	6105	4234	2623	3058	4146	5298	3687	3937	4079	2750	3344	2182
Wallis and Futuna												3		
Western Samoa	4067	4820	4223	2253	1233	1263	2113	3113	2342	2816	2529	1415	2038	1642
Total	32357	50879	59304	50745	49663	52795	57401	51873	55763	72146	74099	56616	71301	68412

Source: Piling et al. 2014

The longline catch is widely distributed in the South Pacific, but with catches concentrated in the western part of the Pacific (Figure 8). Troll catches are distributed in New Zealand’s coastal waters, mainly off the South Island, and along the sub-tropical convergence zone (STCZ). Less than 20% of the overall South Pacific albacore catch is usually taken east of 150°W.

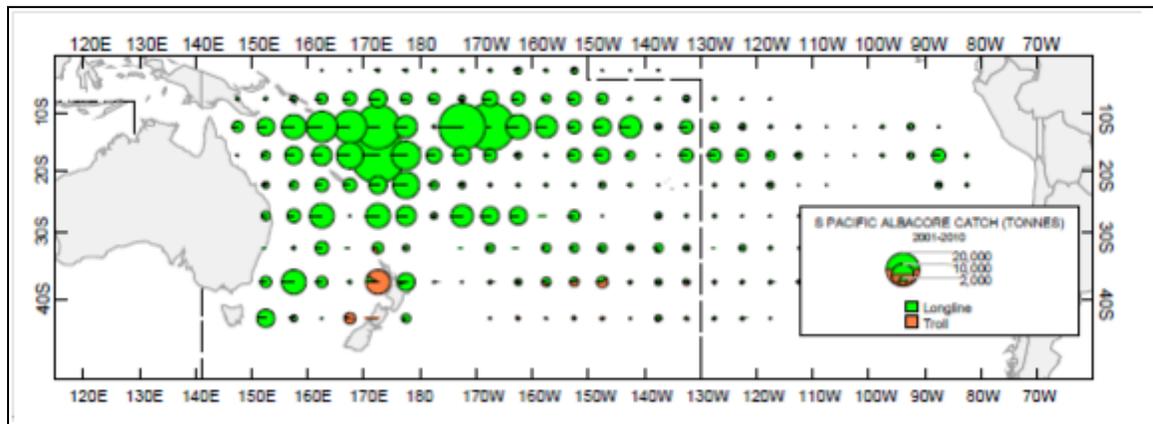


Figure 4: Spatial distribution of SPAB catch in the Western and Central Pacific Ocean (west of 130 deg W) and in the Eastern Pacific Ocean. Source: SPC-OFP (2012)

Regional management of SPALB

International tuna fishery management in the WCPO is conducted by the WCPFC. Within the WCPO, the independent and freely associated Pacific Island nations belong to the South Pacific Forum Fisheries Agency (FFA). The member nations in the FFA divide broadly between those nations bordering the Pacific Warm Pool (Palau, Federated States of Micronesia, Marshall Islands, Kiribati, Tuvalu, Nauru, Solomon Islands, Papua New Guinea), and the remaining countries of the Central South Pacific (Vanuatu, Fiji, Tonga, Samoa, Tokelau, Niue, Cook Islands).

The group of nations bordering the Pacific warm pool have formed the Parties to the Nauru Agreement (PNA). Their EEZs and adjacent high seas areas contains the majority of the WCPO skipjack tuna resource, fished primarily by purse seine vessels, fishing on free swimming schools and on fish aggregating devices (FADs). The EEZs and adjacent high seas of the latter group contain a major component of the SPALB resource, fished primarily by longliners. New Zealand and the Polynesian countries in the central South Pacific (Cook Islands, Niue, Samoa, Tokelau and Tonga) have formed Te Vaka Moana (TVM).

TVM's stated goal is to secure, protect and enhance associated long-term economic benefits able to be derived from fisheries and protect the important contribution fisheries make to the food security of the communities. Much of the work of the TVM takes place under the auspices of regional processes such as those within the Western and Central Pacific Fisheries Commission, the "Forum Fisheries Committee (FFC)" supported by the Pacific Islands' Forum Fisheries Agency, and the "Heads of Fisheries" supported by the Secretariat of the Pacific Community. In addition, TVM also has important relationships with other key partners, including American Samoa, French Polynesia and New Caledonia, with whom TVM works closely with in the management of shared southern longline fisheries. The longline fisheries of Cook Islands, Niue, Samoa, Tokelau and Tonga are, like American Samoa, are heavily reliant on the American Samoa canning industry.

Current regional management for SPALB by the WCPFC is contained in Conservation and Management 2010-05. The provisions of CMM 2010-05 include the following:

- Commission Members, Cooperating Non-Members, and participating Territories (CCMs) shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above current (2005) levels or recent historical (2000-2004) levels.
- The provisions of the preceding paragraph shall not prejudice the legitimate rights and obligations under international law of small island developing State and Territory CCMs in the Convention Area for whom South Pacific albacore is an important component of

the domestic tuna fishery in waters under their national jurisdiction, and who may wish to pursue a responsible level of development of their fisheries for South Pacific albacore.

- CCMs that actively fish for South Pacific albacore in the Convention Area south of the equator shall cooperate to ensure the long-term sustainability and economic viability of the fishery for South Pacific albacore, including cooperation and collaboration on research to reduce uncertainty with regard to the status of this stock.
- CCMs shall report annually to the Commission the catch levels of their fishing vessels that have taken South Pacific Albacore as a bycatch as well as the number and catch levels of vessels actively fishing for South Pacific albacore in the Convention area south of 20°S. Initially this information will be provided for the period 2006-2010 and then updated annually.
- The measure is to be reviewed annually on the basis of advice from the Scientific Committee on South Pacific albacore.

Despite this measure, or possibly as a result of it, effort and catch of SPALB have increased markedly to the north of 20 Deg N, and creating serious concern for the American Samoa longline fishery and for countries whose tuna fisheries are primarily focused on longlining for SPALB. At present, WCPFC has no catch limits for albacore, meaning the fishery is open and vulnerable to overfishing. WCPFC does have some effort limits in place, but these appear to have been ineffective in comprehensively managing the stock throughout its range.

FFA members are working on two fronts: 1) to establish a regional agreement called the Tokelau Arrangement that would at a minimum establish EEZ-based albacore limits (see Appendix 1). In addition, FFA has signaled that it will be introducing a SPALB conservation and management to the 11th Regular Session of the WCPFC to be held in December 2014. The measure will likely propose a Total Allowable Catch (TAC) of 99,000 mt, flag-based high seas limits applicable to a recent timeframe, and a requirement to work towards reducing total catches to levels associated with MEY.

In 2002, the Council established the Large Vessel Prohibited Area (LVPA) to prevent the potential for gear conflict and catch competition between large fishing vessels and locally based small fishing vessels. In 2014, American Samoa longline fishery participants have requested the Council to make temporary modifications to the existing LVPA citing minimal effort by small longline vessels. The Council is considering the authorization of temporary exemptions for large vessels to fish within the boundaries of the LVPA.

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Appendix I- Tokelau Arrangement

TOKELAU ARRANGEMENT FOR THE MANAGEMENT OF THE SOUTH PACIFIC ALBACORE FISHERY

THE PARTICIPANTS

RESPONDING to the call by Fisheries Ministers for urgent action to address the depletion of the South Pacific albacore stock and to re-build the economic viability of domestic vessels of the small island developing coastal States and territories within the South Pacific Ocean;

DETERMINED to ensure the long-term conservation and sustainable use of South Pacific albacore fish stocks for present and future generations;

TAKING into account the United Nations Convention on the Law of the Sea 1982, in particular Articles 56(1)(a), 61, 62 and 73, and the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks;

HAVING REGARD to the objectives of the South Pacific Forum Fisheries Agency Convention 1979 and the Western and Central Pacific Convention for the Conservation and Management of Highly Migratory Fish Stocks 2004 and in particular the promotion of regional cooperation and coordination of fisheries policies and the need for implementation of these objectives through regional and sub-regional arrangements;

RECOGNISING the responsibilities of coastal States and States fishing in the region to cooperate with each other in the conservation and management of living marine resources throughout their range, including the high seas, and taking into account the special interest of coastal states and territories in highly migratory species while outside their exclusive economic zones;

FURTHER RECOGNISING that this will require a management regime which maintains the ecological relationship between dependent and associated populations, prevents any decrease in the size of harvested populations below those necessary to ensure their stable recruitment, economically viable fishing operations, and avoids adverse impacts upon the marine environment and must be carried out only on the basis of economically and environmentally sound practices, effectively monitored and enforced;

MINDFUL of the dependence of small island developing states and territories of the Western and Central Pacific upon the rational development and utilization of the living marine resources and the continued abundance of these resources;

WELCOMING any FFA non-member State or Territory which has an Exclusive Economic Zone overlapping the effective range of the stocks covered by this Arrangement to become an Associate Participant;

HAVE MADE THE FOLLOWING ARRANGEMENT:

1. DEFINITIONS AND INTERPRETATIONS

1.1 In this Arrangement –

(a) “Fisheries Management Area” (hereinafter referred to as “the Area”) means the exclusive economic zones or fisheries zones (hereinafter referred to as ‘exclusive economic zones’) of the Participants and Associate Participants hereto within which vessels taking stocks within the Scope of the Arrangement operate.

(b) “fishing vessel” means any vessel used or intended for use for the purpose of fishing, including support ships, carrier vessels and any other vessel directly involved in such fishing operations;

(c) “Participant” means an FFA member signatory to this Arrangement, and “Participants” means all such signatories;

(d) “Associate Participant” means a State or Territory Associated with this Arrangement under Paragraph 8.

2. OBJECTIVE

2.1 The objective of this Arrangement is to promote optimal utilisation, conservation and management of stocks within the scope of this Arrangement through the development of management approaches for:

- i) maximising economic returns, employment generation and export earnings from sustainable harvesting of these resources;
- ii) supporting the development of domestic and locally based fishing industries;
- iii) securing an equitable share of fishing opportunities and equitable participation in fisheries for these resources for the Participants;
- iv) increasing control of the fishery for the Participants;
- v) enhancing data collection and monitoring of the fishery;
- vi) promoting effective and efficient administration, management and compliance; and encouraging collaboration between the Participants.

3. SCOPE OF THE ARRANGEMENT

3.1 The understandings found in this document will apply to all fisheries that take south Pacific albacore tuna, whether specifically targeted or taken as bycatch, wherever they may occur in the Area. This Arrangement does not create legally binding rights or obligations.

4. MANAGEMENT MEETINGS

4.1 The Participants to this Arrangement will meet at least once a year for the purpose of reviewing the status of stocks within the scope of this Arrangement and to establish necessary measures for their

management and conservation. To the extent practicable, Management Meetings will be held as part of existing fisheries meetings to minimise costs of participation.

4.2 Associate Participants will be invited to attend Management Meetings.

4.3 The functions of the Management Meeting are -

(a) to consider all available information including scientific data relating to catch, bycatch and operations of fishing vessels taking stocks under the Scope of the Arrangement and economic and socioeconomic information relating to the impact of the fishery on Participants, and to commission studies to acquire such information as necessary;

(b) to consider management measures or Management Schemes, which may include, but are not limited to -

(i) the regulation of fishing catch and/or effort and mitigation of bycatch by fishing vessels operating within the Scope of this Arrangement. ;

(ii) the implementation of a harvest strategy, including consideration of precautionary target and limit reference points, indicators and harvest control rules for any fish stock under the Scope of the Arrangement, if not already regionally agreed;

(iii) the definition of catch allocation units, and the determination of zone limits and inter-zone trading mechanisms;

(iv) the establishment of cooperative measures to restore or add local value to the fishery through mechanisms such as the use of allocation units as equity in joint ventures, allocation unit pooling and multi-zone access schemes, subregional agreements on minimum licencing fees, and subregionally-applied standards for licenced foreign vessels to land a proportion of catch at designated ports, or to employ a proportion of local crew and officers;

(v) the consideration of mechanisms for quantifying by zone the burden of conservation falling upon Participants and Associate Participants as a result of any management measure, with a view to determining whether such burden falls disproportionately on a Small Island Developing State or Territory; and the development of mechanisms for removing or otherwise compensating for any such disproportionate burden;

(vi) the establishment of fishing gear restrictions, closed areas and closed seasons; and

(vii) the establishment and publication of a regularly updated list of vessels licenced to fish commercially in the fisheries waters of each Participant and Associate Participants or authorised by them to fish in the high seas of the WCPFC Convention Area, and taking stocks covered by the Scope of this Arrangement; and

(viii) any other matter deemed necessary from time to time.

(c) the more effective development and implementation of Conservation and Management Measures of the WCPFC applicable to stocks within the Scope of the Arrangement;

(d) the referral of matters for consideration by Special Working Groups as may be considered necessary from time to time; and

(e) if deemed necessary, the adoption of a budget for the management of stocks and the determination of the level of contributions by Participants and Associate Participants.

4.4 As a transitional measure until a Management Meeting implements Paragraph 4.3 (b) (iii), the Catch Allocation Unit will be one tonne of south Pacific albacore tuna (*Thunnus alalunga*), and zone limits will be those agreed by FFC 89 based on the recommendations of the FFC Sub-Committee on South Pacific Tuna and Billfish.

4.5 The Management Meeting will also consider the development of a mechanism to include binding management measures or Management Schemes.

5. DECISIONS OF THE MANAGEMENT MEETING

5.1 The decisions of the Management Meeting will be arrived at by consensus and will apply to the Participants.

5.2 Associate Participants will take part in decisions on measures or paragraphs which they have decided to implement according to a Memorandum of Understanding under Paragraph 8 and will otherwise participate as observers.

5.3 Each Participant and Associate Participant will be responsible for ensuring that its nationals and fishing vessels comply with any applicable management measures adopted by the Management Meeting.

6. SPECIAL WORKING GROUPS

6.1 The Management Meeting may designate Special Working Groups to examine issues arising out of the implementation of this Arrangement.

6.2 Each Participant and Associate Participant will have the right to appoint a representative to any Special Working Group.

6.3 Where expertise is not available amongst representatives of Participants and Associate Participants, the Management Meeting may invite external experts to participate in the meetings of the Groups. The costs of external experts' participation may be met by Participants and Associate Participants to this Arrangement.

6.4 The recommendations of any Special Working Groups will be submitted in writing to the Management Meeting for consideration.

7. INFORMAL CONSULTATIONS WITH OTHER STATES AND INTERNATIONAL ORGANISATIONS

7.1 The Participants recognise the need to cooperate with other states or international organisations having an interest in the fisheries within the Scope of the Arrangement.

7.2 The Participants decide that such cooperation will take place through informal consultations between the Participants and other states or international organisations.

8. ASSOCIATION WITH THE ARRANGEMENT

8.1 Upon this Arrangement coming into effect, an FFA member or any FFA non-member State or Territory which has an exclusive economic zone overlapping the effective range of the stocks covered by this Arrangement may become an Associate Participant to this Arrangement by entering into a Memorandum of Understanding in the form adopted by the Management Meeting.

8.2 The minimum requirement to qualify as an Associate Participant under paragraph 8.1 will be a commitment by the Associate Participant to implement catch limits for species under the scope of this Arrangement within its exclusive economic zone provided that such limits are calculated in a way that is fully compatible with calculation of limits for other zones covered by this Arrangement.

9. SECRETARIAT

9.1 The Director General and staff of the Pacific Islands Forum Fisheries Agency will assist the Participants, and Associate Participants as necessary, to the extent possible, in the implementation and coordination of the provisions of this Arrangement, including providing Secretariat and Technical services to the Management Meeting and Special Working Groups.

10. CONSULTATIONS AND SETTLEMENT OF DIFFERENCES

10.1 At the request of any Participant, consultations will be held with any other Participant within sixty (60) days of the date of receipt of the request. All other Participants will be notified of such requests for consultations and any Participant or Associate Participant will be permitted to participate in such consultations.

10.2 Any differences arising out of the interpretation or implementation of this Arrangement between two or more Participants will be settled through peaceful negotiations.

11. FINAL PROVISIONS

11.1 This Arrangement will be open for signature by FFA members whose exclusive economic zones overlap the stocks within the scope of the Arrangement and will remain open for signature indefinitely.

11.2 This Arrangement will come into effect 14 days following signature by five FFA members.

11.3 After this Arrangement comes into effect, it will be open for association by other members of the FFA and by other island Territories in accordance with the procedure set out in paragraph 8.

11.5 Any amendments to this Arrangement proposed by a Participant or Associate Participant will be mutually decided by all Participants.

11.6 Any amendments will be incorporated in this Arrangement and will come into effect immediately after the Management Meeting that approves the amendment.

11.7 Any Participant or Associate Participant may terminate their participation in this Arrangement by giving twelve months' written notice to the FFA.

11.8 The FFA will retain a copy of the signed Arrangement.

The foregoing represents the understandings reached between the Participants.

DATED

For the Government of Australia

For the Government of Cook Islands

For the Government of the Republic of Fiji

For the Government of the Republic of Kiribati

For the Government of New Zealand

For the Government of Niue

For the Government of the Independent State of Papua New Guinea

For the Government of Samoa

For the Government of Solomon Islands

For the Government of Tokelau

For the Government of the Kingdom of Tonga

For the Government of Tuvalu

For the Government of the Republic of Vanuatu

Appendix I. Tokelau Arrangement

Appendix II. American Samoa longline fishery

The American Samoa longline fishery was pioneered by 30-40 ft outboard powered alia catamarans in the early 1990s (WPRFMC 2013). The fishery began to expand rapidly after the year 2000 with the influx of large (≥ 50 ft overall length) conventional monohull vessels similar to the type used in the Hawaii-based longline fisheries. These vessels were larger, had a greater range, and were able to set more hooks per trip than the average alia vessel. SPALB is the target species in the longline fishery with depth distribution ranging from surface down to at least 380 m. Vessels over 50 feet can set 1,500 - 4,000 hooks per day and have a greater fishing range and capacity for storing fish (8–40 metric tons) as compared with small-scale vessels. Larger vessels are also outfitted with hydraulically powered reels to set and haul fishing gear, and with modern electronic equipment for navigation, communications, and fish finding. Most vessels are presently being operated to freeze albacore onboard. Some vessels also land fresh fish for off-island export on a limited basis.

In 2001-2002, while the Council established the 50 nm large vessel area closures around American Samoa to reduce the potential for gear conflicts between small- and large-scale fishing sectors, American Samoa's active longline fleet increased from 21 mostly small, alia-type vessels to 75 vessels of a variety of sizes with American Samoans mostly owning small vessels and non-American Samoans mostly owning large vessels (WPRFMC 2003). The rapid expansion of longline fishing effort within the EEZ waters around American Samoa prompted the Council to develop a limited entry system for the American Samoa pelagic longline fishery.

The purpose of the limited entry system was to: (1) avoid a “boom and bust” cycle of fishery development that could disrupt community participation in the American Samoa small-scale pelagic fishery; (2) establish a framework to adjust regulations for the American Samoa-based longline fishery; (3) reduce the potential for fishing gear conflicts in the EEZ around American Samoa; (4) maintain local catch rates of albacore tuna at economically viable levels; and (5) provide an opportunity for substantial participation by indigenous islanders in the large vessel sector of the fishery. The Council established four vessel size classes, and the limited entry program's regulations were implemented on August 1, 2005 (70 FR 29646).

- Class A Permits— ≤ 40 ft
- Class B Permits— 40.1 to 50 ft
- Class C Permits— 50.1 to 70 ft
- Class D Permits— > 70 ft

In developing the American Samoa longline limited entry program, the Council identified 138 individuals who owned a longline vessel at any time prior to March 21, 2002 with 93 individuals owning Class A size vessels, nine owning Class B size vessels, 15 owning Class C size vessels and 21 owning Class D size vessels (WPRFMC 2003). However, upon initiation of the initial

permit application and issuance process, only 60 initial permits were approved and issued by NMFS. Of these 60 permits, with fewer than 30 percent of potential Class A size vessel owners applied for and received permits in comparison to 56 percent of Class B, 75 percent of Class C, and 100 percent of Class D size vessel owners (Table 1).

Table 1: Longline Vessels Prior to Permit Program and Initial Permit Allocation

Class Sizes	Number of Vessels in 2002	Initial Permits Issued in 2006
A (≤ 40 ft)	93	22
B (40.1 ft to 50 ft)	9	5
C (50.1 ft to 70 ft)	15	12
D (> 70 ft)	21	21

Source: NMFS PIRO

The American Samoa limited entry program is designed to maximize American Samoan participation in the fishery. Further, the limited entry program was established with the intent that the pioneer alia fishermen may be able to upgrade to larger conventional monohull vessels and thus increase benefits from the fishery. However, it appears that active participation in the smaller scale alia longline fishery is now limited to a single vessel, with most of the fleet comprising conventional monohull longliners (Table 2).

Year	Class A ≤ 40 Feet		Class B ≤ 50 Feet		Class C ≤ 70 Feet		Class D > 70 Feet	
	Permits	Active	Permits	Active	Permits	Active	Permits	Active
1994	0	0	0	0	0	0	0	0
1995	14	4	0	0	0	0	0	0
1996	26	11	1	0	1	0	0	0
1997	35	19	1	0	1	1	2	2
1998	37	21	1	0	1	1	1	1
1999	45	35	2	1	2	2	1	1
2000	45	37	2	2	5	3	2	2
2001	61	37	6	6	11	9	23	18
2002	55	32	6	6	14	6	25	18
2003	31	17	5	4	15	9	23	22
2004	11	9	2	2	13	8	22	21
2005	8	5	3	2	11	9	20	18
2006	21	3	5	0	10	6	24	19
2007	18	2	6	0	9	5	26	22
2008	17	1	6	0	9	5	26	22
2009	1	1	1	1	8	5	26	22
2010	12	1	0	0	12	5	26	20
2011	12	1	1	0	12	5	27	18
2012	5	3	5	0	11	8	27	14
2013	5	1	5	0	11	7	26	14

In 2011, the Council recommended amending the Pelagics FEP to modify the longline limited entry permit program to reduce programmatic barriers that may be limiting small vessel participation, which in turn may be affecting sustained community and indigenous American Samoan participation in the longline fishery. Specifically, the Council recommended to replace the four size classes (A,B,C, and D) with two size classes: small (vessels less than 50ft) and large (50 ft or greater), remove the permit eligibility criteria that required past history in the fishery, and reduce the small vessel size class minimum harvest requirement from 1,000 pounds to 500 pounds within three years. This document has yet to be officially transmitted to the Secretary of Commerce for review and approval.

A summary of the longline fishing effort and catch is given in Table 3. Albacore forms almost 80% of landings, followed by yellowfin (10%), bigeye (3.6%), wahoo (3.5%) and skipjack (3.2%).

Table 3: American Samoa Longline Fishery Landings and Other Statistics, 2003-2013.

Item	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Active Vessels	49	41	36	30	29	28	26	26	24	22	22
Hooks Set (millions)	14.2	11.7	11.1	14.3	17.5	14.4	15.0	13.2	10.8	11.7	10.1
Trips	650/282 *	430/193 *	223/179 9*	331	377	287	177	264	274	275	96
Sets Made	6,220	4,850	4,359	5,069	5,919	4,754	4,910	4,534	3,776	4,068	3393
Total Landings (mt)	5,173	4,079	3,999	5,401	6,586	4,347	4,787	4,673	3,250	4,022	2,717
Albacore Tuna Landings (mt)	3,931	2,488	2,919	4,104	5,329	3,456	3,910	3,938	2,292	3,092	2,051
Yellowfin Tuna (mt)	517	890	516	493	620	336	155	445	536	385	414
Bigeye Tuna (mt)	253	226	132	199	199	124	146	178	170	167	85
Skipjack Tuna (mt)	120	235	141	213	165	163	156	111	109	250	64
Wahoo (mt)	195	215	221	287	198	136	139	131	125	83	88
Total Ex-vessel Value (adjusted) (\$ millions)	\$10.7	\$9.1	\$8.0	\$11.5	\$13.7	\$9.4	\$10.4	\$ 10.4	\$7.2	\$7.2	\$6.5

Source: WPFMC 2013 and WPRFMC unpublished data

*The first number is trips by alia and the second is by larger monohull vessels. From 2006, three or fewer alia vessels were active and those data are confidential.

Note: all other species (e.g. mahimahi, swordfish, etc.) landed are less than 1 percent of total landings.

The trend in tuna and non-tuna catches is presented in Figure 1.

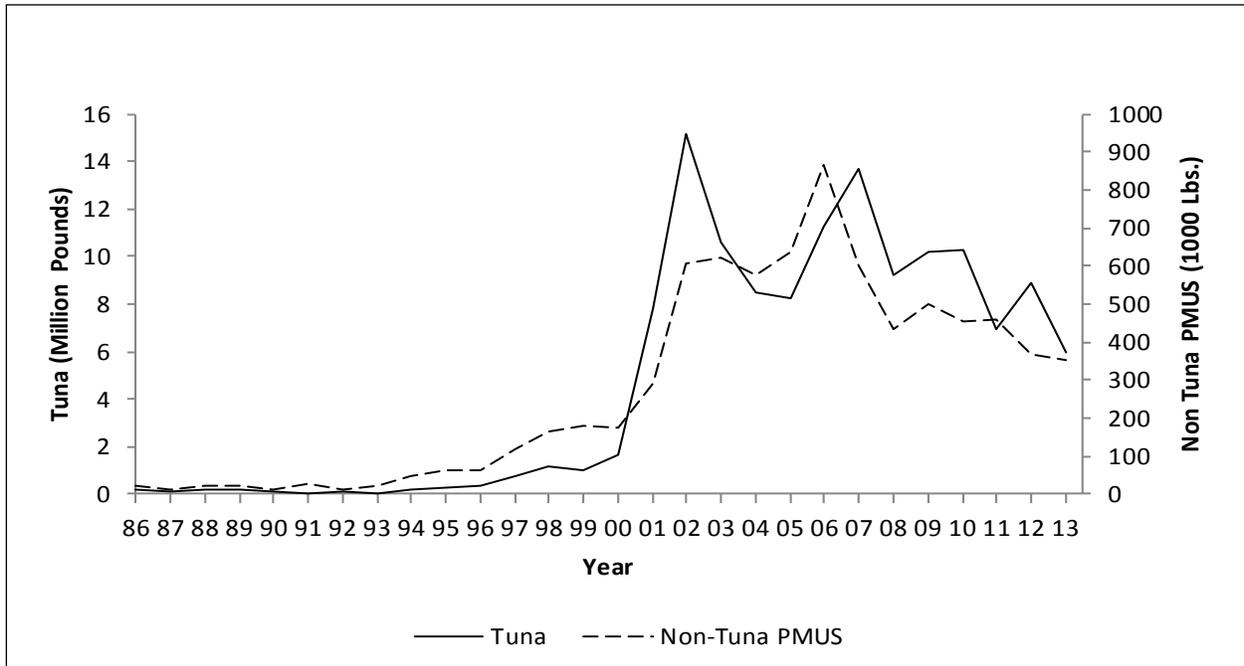


Figure 1: Time series of tuna and non-tuna catches by the American Samoa longline fishery. Source: WPRFMC (2014) and unpublished data.