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Options for an American Samoa Shallow-Set Swordfish Fishery

Introduction

The American Samoa longline fishery developed in the mid 1990s and matured at the beginning of this decade. Initially, it was primarily a nearshore coastal longline fishery dominated by outboard powered catamaran vessels known locally as alias, using hand deployed and retrieved longline gear. From 2000 onwards, the fishery came to be dominated by conventional large mono-hulled longline vessels, comparable in size to those in the Hawaii longline fisheries.

The advent of conventional large longline vessels meant that observers could be deployed to make observations of effort, catch, and protected species interactions in the American Samoa longline fishery. Extrapolation of observations made by NMFS observers between 2006 and 2010 suggested that an average of 33 green turtles interacted annually with the fishery, with a mortality rate estimated at 92 percent. In 2008, the Council took action to reduce this interaction rate.

Specifically, the Council recommended an amendment to the Pelagics Fishery Ecosystem Plan (PFEP) that requires the fishery to modify the deployment of longline gear such that all hooks are set at least 100 m deep. Information summarized in a biological opinion (BiOp) and in the PFEP amendment showed that most green sea turtle interactions occurred on the first and second hooks nearest to the float, likely in depths less than 100 m. The NMFS-issued BiOp indicated that if the fishery adopted the proposed gear modifications it would not jeopardize the continued existence of green sea turtles, or those of hawksbill, olive ridley, or leatherback turtles.

If this PFEP amendment is implemented, it will effectively prohibit any shallow-set longline fishing for swordfish, or other fishes by American Samoa longliners. Although swordfish are caught in the waters of the U.S. EEZ around American Samoa, and the proposed gear modifications would allow the retention of up to 10 swordfish, this species shows an anti-tropical distribution in terms of abundance and are often found at the confluence of cold and warm ocean currents where productivity is high. Spanish and Cook Islands longline vessels, for example, fish for swordfish predominantly in latitudes between 20 and 40 deg S, in high seas waters approximately 800 nm south of American Samoa.

Some American Samoa vessels have successfully targeted swordfish in these water. Unfortunately, transporting the fish to the lucrative East Coast swordfish market did not yield the expected financial returns. If marketing issues could be solved or become more favorable, American Samoa fishermen are likely to regain interest in targeting swordfish. However, when the PFEP gear modifications amendment takes effect, such fishing will not be allowed. As such, at the 150th Council Meeting, the Council directed staff to prepare a draft amendment to the PFEP that would specify regulations for an American Samoa shallow-set longline fishery, which would operate under the American Samoa longline limited entry program, to target swordfish and other pelagic species.

Purpose and need

The purpose of this paper is to consider various administrative mechanisms for allowing for shallow-set swordfish fishing by American Samoa longline vessels. The need for the amendment is if the PFEP amendment requiring fishing at 100 m or deeper to reduce interactions with green sea turtles is approved, vessels will be unable to shallow-set their gear.

1. Alternatives to permit the use of shallow-set swordfish gear in American Samoa

The following alternatives may be considered to allow shallow-set longline fishing by American Samoa longline fishery permit holders.

a. No Action

Pros	Cons
Maintaining a deep-set fishery only would incur no additional monitoring and enforcement burdens, and minimize potential environmental risks. Apart from some limited fishing activity in the past, a swordfish fishery has not developed in American Samoa and there appears to be little interest in developing such a fishery. The proposed gear modifications PFEP amendment would allow the retention of up to 10 swordfish per trip, which is more than is typically caught on a deep-set trip.	The American Samoa longline fishery would be required to deep-set longline fishing and unable to target South Pacific swordfish were a fishery to develop. The fishery would be unable to diversify and lessen its dependence and vulnerability on the Pago Pago canneries if they close in the future. Foregoing the opportunity to fish for swordfish would likely not achieve optimum yield (OY) for this fishery.

b. Amend the Pelagics FEP to permit shallow-set longline fishing

Pros	Cons
Would permit swordfish fishing and allow fishery to potentially diversify and reduce dependence on Pago Pago canneries. Would provide another target species for the American Samoa longline fishery during periods when albacore catchability is reduced seasonally or inter-annually. A shallow set fishery may have greater interactions with sea turtles unless gear modification s similar to the Hawaii longline fishery are adopted. Fishing at higher latitude in the South Pacific may lead to interactions with seabirds not encountered by the Hawaii-based longline fishery and for which established mitigation measures are inappropriate	Amendment process requires a lengthy period of review and re-drafting before it is completed for review and potential approval by the Secretary of Commerce. Secretarial review and approval is not guaranteed. Apart from some limited fishing activity in the past, a swordfish fishery has not developed in American Samoa and there appears to be little interest in developing such a fishery. Marketing swordfish from Pago Pago may still continue to be problematic A shallow set fishery may potentially have greater environmental impacts and may require unique observer coverage and testing of protected/sensitive species mitigation measures.

c. Exempted Fishing Permit to allow for shallow-set swordfish fishing

Pros	Cons
Requires fishermen to initiate EFP process rather than Council initiative to amend PFEP, and my be indicative of level of interest in a shallow set longline fishery targeting swordfish An exempted fishing permit (EFP) can be recommended by the Council and issued by the NMFS Regional Administrator without Secretarial review and approval, saving time and resources. Likely a quicker administrative process compared to a PFEP amendment. Issuing of exempted fishing permit(s) for shallow-set swordfish fishing could facilitate the collection of data through logbook and observers that could be incorporated into a potential future PFEP amendment.	Apart from some limited fishing activity in the past, a swordfish fishery has not developed in American Samoa and there appears to be little interest in developing such a fishery. Application for an EFP would require a completed application to NMFS a minimum of two months before the desired effective date. NMFS would be required to develop an environmental assessment and accompanying supporting documentation, including a biological opinion, and solicit public comments after publication in the federal register. EFP is usually effective for one year and must be renewed following the same application

Pros	Cons
EFPs have been issued in other regions of the Unites States and can serve as models for an American Samoa EFP for swordfish longline fishing. EFP renewal procedures will likely be much quicker than the initial application.	procedures. A shallow set fishery may potentially have greater environmental impacts and may require unique observer coverage and testing of protected/sensitive species mitigation measures.

d. <u>Community Development Program (CDP) to allow American Samoa communities to be exempted from the deep-set requirements of the PFEP</u>

Pros	Cons
A CDP authorization can be recommended by the Council and issued by the NMFS Regional Administrator without Secretarial review and approval. Issuing of CDP authorization for shallow-set swordfish fishing could facilitate the collection of data through logbook and observers that could be incorporated into a potential future PFEP amendment.	Apart from some limited fishing activity in the past, a swordfish fishery has not developed in American Samoa and there appears to be little interest in developing such a fishery. Application for a CDP authorization by the Regional Administrator requires the meeting of eligibility criteria which includes descent from aboriginal people of the Western Pacific, residence in ancestral homeland, and traditional fisheries knowledge. These and other criteria would exclude or at a minimum marginalize non-indigenous longline fishermen, who would need to seek some community affiliation in American Samoa to be able to make an application. The application process also includes being an indigenous Polynesian or Micronesian, have customary knowledge of customary fishery practices, have a traditional dependence on fisheries, and the drafting and approval of a Community Development Plan, which is a much more onerous process for fishermen than an EFP application. A shallow set fishery may potentially have greater environmental impacts and may require unique observer coverage and testing of protected/sensitive species mitigation measures.

2. Operations of a shallow set swordfish fishery in American Samoa

Should a shallow set fishery in American Samoa targeting swordfish become a reality, it is likely that additional seabird and sea turtle mitigation measures based on experience in fisheries elsewhere, especially Hawaii, be adopted for the American Samoa fishery. The spatial separation of any potential shallow set fishery, operating at sub-tropical higher latitudes may mean that any operational requirement for a shallow set fishery may have a spatial element, i.e. be required when fishing below some latitudinal boundary.

3. Council Action

At the 151st Council Meeting the Council may wish to consider initial action on:

a. **Investigate the interest by longline fishermen in developing a shallow-set swordfish longline fishery in American Samoa.**
b. **Consider the range of alternatives for facilitating the development of a shallow-set swordfish longline fishery in American Samoa, and select a preferred alternative or suggest other potential alternatives.**