WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

DRAFT

Regulatory Amendment under the Fishery Ecosystem Plan for the Pelagic Fisheries of the Western Pacific Region:

Crew Training Requirement for the Hawaii and American Samoa Longline Fisheries

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Abstract

The Council is considering a regulatory amendment for implementing a crew training requirement for the longline fisheries operating under the Pelagic Fishery Ecosystem Plan (FEP). Specifically, the action would expand protected species handling and release training currently required for vessel owners and operators fishing under Hawaii and American Samoa limited access longline permits to include a crew member training requirement. This action is intended to reduce post-release mortality of protected species when interactions occur and is necessary to comply with the terms and conditions of the most recent Endangered Species Act (ESA) biological opinions for these fisheries.

The Council at the 201st meeting in December 2024 took initial action on the regulatory amendment and directed the Action Team to refine the regulatory approach for implementing the crew training and person-on-deck requirement under Alternative 1, taking into consideration recommendations from the advisory groups, and provide an update at the March 2025 meeting in advance of Council final action at the June 2025 meeting. The Council additionally requested NMFS to make the crew training program accessible to fishery participants and work with the Council and Hawaii and American Samoa longline fishery representatives to explore an appointment scheduling system that would facilitate greater participation in the training sessions. The Council at the 202nd meeting in March 2025 received a status update from the Action Team and endorsed the revised regulatory approach, provided that NMFS continues to provide accessible video-based training that can accommodate vessel departure schedules.

The Council at its 203rd meeting on June 9-11, 2025, will consider taking final action on the crew training requirements. This draft regulatory amendment evaluates the potential impacts of the alternatives, which incorporate the revised regulatory approach endorsed by the Council at the 202nd meeting.

Alternative 1: Revise the Longline Fishery Protected Species Workshop (PSW) Requirement to Implement Crew Training - Amend regulations to revise the PSW requirement for vessels registered for use under any longline permit to implement crew training through: 1) a crew certification requirement intended to address the existing crew training gap; and 2) a trained person on deck requirement that would address the intent of having a trained person immediately available to respond to protected species interactions.

Sub-Alternatives for Council consideration of crew training recertification frequency:

Sub-Alternative 1a. Require certification annually (NMFS-issued certificate would have a one-year expiration date);

Sub-Alternative 1b. Require certification every 2 years (NMFS-issued certificate would have a two-year expiration date); OR

Sub-Alternative 1c. No expiration for certification (NMFS-issued certificate would not have any expiration date).

Alternative 2: No Action/Status Quo

Under the action alternative (Alternative 1), there would be no change in the operation of longline fisheries in terms of location, target and non-target species, catch, effort, fisher

participation, gear composition, seasonality, intensity, or bycatch. It is anticipated that protected species post release mortality would be lower.

After the Council takes final action, NMFS would implement this action pursuant to the rulemaking authority under Section 303(c) of the Magnuson-Stevens Fishery Conservation and Management Act and implementing regulations at 50 CFR 600.350 and 50 CFR 600.355.

ACRONYMS AND ABBREVIATIONS

ASLL	American Samoa longline
BiOp	Biological Opinion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNMI	Commonwealth of the Northern Mariana Islands
DSLL	deep-set longline
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EM	electronic monitoring
ESA	Endangered Species Act
FEP	Fishery Ecosystem Plan
FKWTRP	False Killer Whale Take Reduction Plan
FLD	fighting line device
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
FR	Federal Register
HLA	Hawaii Longline Association
LMS	learning management system
MHI	Main Hawaiian Islands
MMPA	Marine Mammal Protection Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NSI	non-serious injury
OLE	Office of Law Enforcement
PIFSC	Pacific Islands Fisheries Science Center
PIRO	Pacific Islands Regional Office
PMUS	pelagic management unit species
PRD	Protected Resources Division
PSW	Protected Species Workshop
RA	Regional Administrator
RPM	Reasonable and Prudent Measure
SFD	Sustainable Fisheries Division
SI	Serious Injury
SSLL	shallow-set longline
T&C	Terms and Conditions
USCG	U.S. Coast Guard
WPFMC	Western Pacific Fishery Management Council

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1 INTRODUCTION

The Western Pacific Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) manage fishing for pelagic management unit species (PMUS) in the Exclusive Economic Zone (EEZ or federal waters, generally 3-200 nautical miles or nm from shore) around American Samoa, Guam, the Commonwealth of the Northern Mariana Islands (CNMI) and Hawaii, and on the high seas through the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region (Pelagic FEP) as authorized by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; 16 U.S.C. § 1801 et seq.).

Owners and operators of all longline vessels operating under the Hawaii longline limited entry permit, American Samoa longline limited entry permit, and the Western Pacific general longline permit have been required to annually attend the Protected Species Workshop (PSW) conducted by NMFS since the early 2000s. The PSW requirement for owners and operators were implemented as an approach to mitigate effects of protected species interactions with fishing gear. The owners and operators receive training on gear requirements, protected species identification, and handling and release techniques. Mitigation measures for seabirds and sea turtles implemented in the early- to mid-2000s were successful in reducing interaction rates with these species, and there is now greater focus on reducing post-release mortality of protected species that are released alive.

Proper handling and release techniques can have significant impacts on post-release survival rates (Zollett & Swimmer, 2019). In the longline fisheries operating under the Pelagic FEP, vessel operators may not be on deck where hauling operations are taking place to provide guidance to crew members on handling and release techniques taught through the existing owner/operator PSW. The Council has recognized this training gap with crew members, and has made recommendations to NMFS over the years to develop and implement a crew training program to improve handling of seabirds, sharks, and marine mammals.[1] Additionally, the False Killer Whale Take Reduction Team (FKWTRT), convened pursuant to the Marine Mammal Protection Act (MMPA), has also made recommendations to NMFS regarding the implementation of a crew training program focusing on marine mammal handling and release.

The 2023 Biological Opinions (BiOps) for the Hawaii deep-set longline (DSLL) and the American Samoa longline (ASLL) fisheries, as well as the 2024 Supplemental BiOp for the Hawaii shallow-set longline (SSLL), included a Reasonable and Prudent Measure (RPM) Terms and Conditions (T&C)[2] requiring, within two years of the BiOp's publication, NMFS Pacific Islands Regional Office (PIRO) Sustainable Fisheries Division (SFD) to make protected species handling training available to all crew members and require each vessel carry at least two persons with approved protected species handling training when on a fishing trip, and have at

[1] At the 174th meeting in October 2018, Council recommended NMFS expand training and outreach to longline vessel crew members in their native languages as one of the strategies for further reducing seabird bycatch. At the 176th meeting in March 2019, the Council recommended NMFS develop and implement a captain and crew training program to reduce the risk of false killer whale mortality and serious injury while also promoting crew safety. At the 185th meeting in March 2021, the Council recommended NMFS to provide support to industry efforts for captain and crew training on proper shark handling and gear removal.

[2] T&C as amended on May 29, 2025

least one trained person on deck to direct the proper handling and release when an ESA-listed species interaction occurs during fishing gear retrieval.

PIRO SFD, in coordination with the Hawaii Longline Association (HLA), PIRO Protected Resources Division (PRD), and the Council developed a pilot crew training program to implement the BiOp RPM requirement. The first pilot program training session was conducted in April 2024 and is scheduled to run through May 2025, with the target of training all current crew members in the Hawaii and American Samoa longline fisheries within that timeframe.

The Council is now considering a regulatory amendment under the Pelagic FEP to implement the crew training program as a regulatory requirement in the Hawaii and American Samoa longline fisheries. The Council will consider taking final action at the 203rd meeting in June 2025.

1.1 Background Information

1.1.1 Overview of current protected species workshop requirements

Vessel owners and operators have been trained on fisheries regulatory requirements for mitigating protected species interactions since 2001 (50 CFR 665.8140). The protected species workshop (PSW) includes training on gear requirements, protected species identification, and handling and release techniques; an approach aimed to mitigate effects of protected species interactions with fishing gear. The Council initially recommended an annual PSW requirement for Hawaii longline vessel owners and operators of a vessel registered for use under a Hawaii longline limited access permit in October 1999 as part of the Council action on seabird mitigation measures. The intent of the requirement was to reduce the likelihood that interactions between protected species and longline vessels will occur by making fishermen more aware of the impact of interactions on protected species populations and measures to mitigate those interactions (WPRFMC 1999). The requirement was initially implemented in regulations as part of a 2001 emergency interim rule in response to a U.S. Fish and Wildlife Service BiOp which focused on short-tailed albatross. The initial regulations only applied the PSW requirement to vessel operators, but were later revised and implemented permanently in June 2002 through Framework Action 2 under the Pelagic Fishery Management Plan (FMP; WPRFMC 2002a) to expand to vessel owners for consistency with the Council's original 1999 recommendation. The PSW requirement was also expanded to include all longline vessels operating under the Western Pacific general longline permit, which included American Samoa longline vessels, through Regulatory Amendment 1 of the Pelagic FMP in June 2002 (WPRFMC 2002b).

Current regulations for the Pelagic FEP require owners and operators of a vessel registered for use under any longline permit (including Hawaii and American Samoa longline fisheries) to annually attend and obtain certification for completion of a workshop conducted by NMFS on regulations and interaction-mitigation techniques for sea turtles, seabirds, and other protected species (50 CFR 665.814). Additionally, regulations implemented in 2012 for the False Killer Whale Take Reduction Plan (FKWTRP) pursuant to the Marine Mammal Protection Act (MMPA) also require that the annual workshop for owners and operators include interaction mitigation techniques for marine mammals (50 CFR 229.37(f)(1)).

The detailed curriculum and format of the PSW is determined by NMFS and not specified in the regulations. The owner/operator course currently covers protected species interaction mitigation measures and handling regulations implemented under the Pelagic FEP (50 CFR 665), other applicable laws (e.g. MMPA; 50 CFR 229), and conservation and management measures required under applicable international regional fisheries management organizations (50 CFR 300). The course also includes species identification and non-regulatory best practices for mitigation techniques as well as handling and release, with information periodically updated to reflect new requirements and guidance.

The owner/operator PSW training sessions are provided as often as weekly at the National Oceanic and Atmospheric Administration (NOAA) office at Pier 38 in Honolulu. The PIRO Sustainable Fisheries Division (SFD) also provides PSW training via in-person classroom workshops and hybrid webinars. Individuals who have completed an in-person workshop or webinar may be recertified for the following two years via an online learning management system (LMS). Vessel owners who do not operate a vessel may recertify with the online LMS annually after attending at least one in-person workshop or hybrid webinar. PSW certificates indicate an expiry date which is supported by a digitally accessible list of currently certified individuals used by NOAA's permitting program and Office of Law Enforcement (OLE)/ U.S. Coast Guard enforcement. SFD does not collect information on whether workshop participants intend to participate in the shallow-set and/or deep-set longline fishery. Since nearly all of the Hawaii shallow-set longline vessels also participate in deep-set longline fishery, all forms of the workshop, including in-person and hybrid webinars and the online LMS, covers all protected species related regulations and handling guidelines for both deep and shallow set fisheries.

A few vessels in the Hawaii longline fishery also operate out of California. These vessel owners and captains similarly attend the virtual options for the PSW. The American Samoa longline vessels currently have multiple options for PSW training which include virtually attending the hybrid workshops hosted in Honolulu either from a personal device or from their local NOAA office conference room, or attending an in-person training option hosted onboard their vessel run by SFD staff in American Samoa. These trainings are frequently attended by the captain and crew together.

SFD and the Council have translated the PSW handling and release guide in languages commonly spoken by operators (Vietnamese) and crew (Tagalog, Indonesian). These guidebooks are distributed during the workshop as well as emailed with each PSW certificate to successful workshop participants. The guidebooks are also available to download directly from the PSW website and the NMFS Digital Resource Library. The PSW staff have also incorporated use of an animated handling and release training video as part of the workshop. This video reflects proactive identification of an education and outreach need, further substantiated by feedback from vessel owners, captains, OLE, and the Hawaii Longline Association (HLA). The animated video is the result of achieving agreement on handling and release protocols, and final product approval, among 16 NMFS scientists and managers from the observer program, PIRO Protected Resources Division (PRD), and PIFSC. The PSW video has been available on NOAA's YouTube training channel since April 2022.

A concern with the current PSW regulations is that although there is a training requirement there is no requirement for a trained person to be present on deck during fishing activities. With the

exception of owner-operators, the vessel owner is typically not on board the vessel while fishing, and the operator is often occupied with operation of the vessel and thus may not be available to provide direction on protected species handling during fishing operations. Requiring a trained person to be on deck during retrieval of the gear would help ensure that knowledge of best handling and release practices is applied when responding to protected species interactions.

1.1.2 Biological Opinion Reasonable and Prudent Measure Terms and Conditions

The 2023 Hawaii DSLL and ASLL BiOps (NMFS 2023a, 2023b), issued in May 2023, included a RPM Terms and Conditions (T&C) specifying NMFS Pacific Islands Regional Office (PIRO) Sustainable Fisheries Division (SFD) to require protected species handling training for crew members for handling and release of incidentally captured protected species within two years of the BiOp's publication (by May 2025). In addition, a Supplemental BiOp for the Hawaii SSLL fishery (NMFS 2024) focused on loggerhead sea turtles issued in March 2024 included RPM and T&C regarding crew training. The T&Cs were revised May 29, 2025 to clarify the intent of the training requirement.

The revised T&C is the same in both 2023 BiOps and the 2024 Supplemental shallow-set BiOp, and requires the NMFS SFD:

> (T&C 1.b. in the 2023 BiOps and T&C 1.c. in the 2024 Supplemental BiOp) "To reduce post-release mortality, within two years NMFS SFD shall make protected species handling training available to all crew members. When on a fishing trip, each vessel will carry at least two persons with approved protected species handling training. In addition, whenever fishing gear is being retrieved and an ESA-listed species interaction occurs, there will be at least one trained person on deck to direct the proper handling and release of that animal. Training shall include best practices identified in 1.a [or 1.b.] above. In circumstances where the vessel does not meet the minimum training requirement specified above prior to a fishing trip, NMFS may authorize the trip with an alternate training option, including but not limited to video training."

This requirement references T&C 1.a. or 1.b., the full text of which is:

> (T&C 1.a. in the 2023 BiOps & T&C 1.b. in the 2024 Supplemental BiOp) "NMFS SFD shall implement measures to minimize the amount of trailing gear left on ESA-listed species to the maximum extent practicable to reduce the amount of injury and harm, the likelihood of further gear entanglement or entrapment, and improve the post-release mortality of ESA-listed species. This may include using new technologies once proven, such as fighting lines (i.e., additional gear that reduces tension on the branch line), line cutting devices, and other gear modifications."

1.1.3 Development of the Crew Training Program

PIRO SFD, in coordination with HLA, PIRO PRD, and the Council initiated a pilot crew training program in April 2024 which is scheduled to run through May 2025. The goals of the pilot training program were to:

- Maximize training opportunities for all crewmembers

- Refine the training program with stakeholder and participant input
- Based on outcomes, develop a regular training program
- Evaluate if the goal of training all crew is possible by the 2025 deadline (2 years from when the BiOps were issued)

A final objective of the pilot program is to provide training to all crew of longline vessels in the Hawaii and ASLL fisheries to ensure the greatest reduction of harm to protected species as possible. Having all crew trained during the voluntary pilot program would facilitate transition to a regulatory requirement.

The first crew training event was held in April 2024, and monthly training sessions have been held since, with the exception of October 2024 and February 2025 due to scheduling conflicts. Pilot training sessions have been supported and attended by HLA, PIRO PRD and SFD staff, and Council staff, and have been led by the PIRO SFD protected species workshop coordinator.

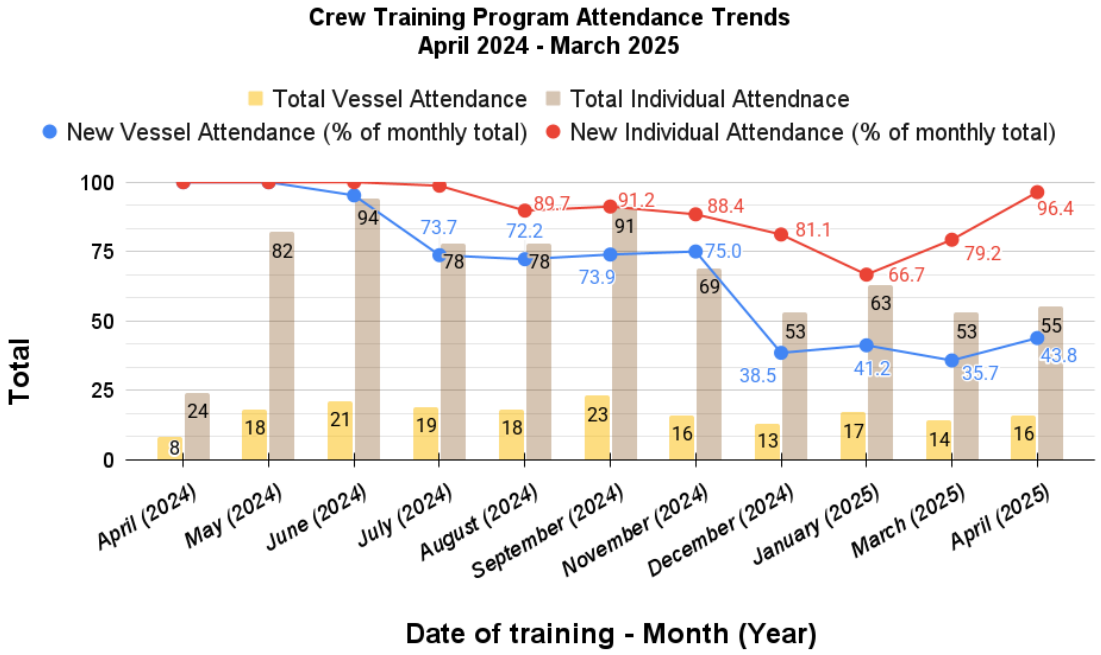
In total, the monthly training sessions between April 2024 and April 2025 have resulted in a total of 617 crew members from 129 vessels trained, or approximately 86% of the Hawaii longline fleet (Table 1). These training days included two or three sessions each with either translation into Tagalog, Indonesian and/or Vietnamese.

A few vessels in the Hawaii longline fishery also operate primarily out of California ports and crew for these vessels would currently have to be trained in Hawaii. PIRO is planning to hold training sessions in California in early 2025 to provide greater access to these crew members.

The American Samoa longline crew regularly attend the in-person owner and operator training sessions conducted onboard their vessel by SFD staff in American Samoa. Many of the crew are American Samoa residents who can easily access the local NOAA offices, and crew may be trained through those offices. A total of 51 crew members from all 9 active vessels have received training as of April 2025.

Table 1. Summary of 2024-2025 Pilot Crew Training Session Participation to Date. Number of vessels and participants include those who have had repeat attendance.

Training date	Apr 19	May 10	Jun 21	Jul 12	Aug 28	Sep 27	Nov 8	Dec 13	Jan 24	Mar 7	April 18&25	Total
Sessions	3	2	2	2	2	2	2	2	2	2	4	25
Vessels participating	8	18	21	19	18	23	16	13	17	14	16	183
Number of participants	24	82	94	78	78	91	69	53	63	53	55	740



Initial efforts focused on large training events where all available vessels in port would be able to attend. These training events required participation from multiple partners (DHS, HLA, PRD, DOT - Harbors), live interpretation for the 1-hour lessons in 3 languages most commonly spoken by crew (Indonesian, Vietnamese, and Tagalog), and the setup of an outdoor classroom. While these monthly events maximized opportunities for attendance, once the program had reached 60%-70% of the 150 vessels in the fleet, new vessel attendance dropped due to fewer vessels in port on training days that had not yet received training. As of December 2024, less than 50% of vessels in attendance at any training event had been new vessels that have never had crew members trained. Due to this declining trend, PIRO determined that separate accommodations would be needed to reach the goal of having all vessels with trained crew members by May 2025. Further, the feasibility of implementing the pilot training format as a permanent program has also been affected by the lack of funding for regular interpretation services and changes to foreign crew's ability to move between piers to access dock-side training areas. As such, an alternative approach was needed for the crew training program.

Although training attendance by new vessels decreased over time, the number of new crew members who require training has not followed the same level of regression. Crew turnover rates have been observed throughout the program to be high enough that a majority of vessels that have attended more than one training have not sent the same crew members. To date, 90.2% of all crew members in attendance have been new, untrained individuals. This points to the high turn-over rate of crew members and the need for regularly offered, easily accessible training options.

Access plan (Long-term baseline) - Short-form Video and Quiz Training
NMFS PIRO is transitioning the current large event training program to a smaller and more time and cost effective program to ensure a system for efficient and effective training in compliance with the RPM T&C. The new short-form training program will maintain an in-person format and

will consist of a video followed by a short comprehension quiz. The training will use the existing Protected Species Workshop's animated handling and release guideline video with interpreted audio tracks, translated resources, and foreign language closed-captions to ensure training is offered in the languages most commonly spoken by crew members. The supplemental knowledge test and resources will be used to ensure comprehension and encourage prioritization of becoming familiar with the material. This training format has been modeled after the insurance-required training that some vessel owners currently implement for all crew on the vessels under their management, and thus is a familiar format for the longline fleet. This training option can be offered to a single or multiple vessels and would be able to accommodate the unpredictable schedule of the longline fleet. Scheduling and delivery of the training can occur weekly either onboard vessels, or in the NMFS Pier 38 classroom.

All training will be encouraged to occur in-person to ensure participation and comprehension. This will also offer the opportunity for questions and dockside support such as checking required handling gear for compliance, owner and operator participation and input, and physical demonstrations. However, exceptions can be made circumstantially for vessel owners and operators to administer the video-based training to their crew at sea (e.g., crew pickup trips that wish to fish on their way back; coordinator's inability to accommodate training due to scheduling or location). In this scenario, the operator will notify the coordinator of their approximate arrival in Honolulu to schedule a brief in-person visit and delivery of resources.

This developing short form training plan ensures there is a program in place to accommodate all vessels while ensuring compliance with the BiOp's RPM T&C and any regulations implemented through Council action. This plan also reduces the overall burden on staff and partner time as well as fisher schedules.

Based on the success of the pilot program and large-event format of training, NMFS recognized the potential and importance of a more hands-on and comprehensive training opportunity. NMFS hopes to look into the possibility of offering alternate training opportunities in the future pending funding and partner availability.

1.1.4 Anticipated Reduction in Post-Release Mortality from Crew Training

Interactions with most protected species are rare events in the Hawaii and American Samoa longline fisheries. Based on the observer data for the 2019-2023 period, the average annual number of sea turtle interactions ranges between 0.8-2.3 interactions per vessel, and marine mammals between 0.3-0.6 interactions per vessel (Table 2). Interactions with ESA-listed elasmobranchs (sharks and rays) are more frequent in the DSLL and ASLL fishery, at average of 16.4 and 46.5 interactions per vessel per year, respectively. For rarer species groups such as sea turtles and marine mammals, crew members may or may not encounter an interaction in any given year. Additional information on the baseline protected species interactions can be found in the Stock Assessment and Fishery Evaluation Report for the Pelagic FEP (WPFMC 2023).

When a protected species is caught by longline gear and alive at haul, proper handling and release techniques can have significant impacts on post-release survival rates (Zollett & Swimmer, 2019). The proportion of animals alive at haul varies by species and fishery, with most of the variability thought to be related to the depth the gear is fished (Table 2). The goal of

crew training is to reduce the subsequent post-release mortality of animals brought to the vessel alive through improvements in handling and release techniques. Protected species interactions in the Hawaii SSLL fishery as well as leatherback turtles, marine mammals and ESA-listed elasmobranchs across all longline fisheries are mostly brought to the vessel alive, and thus have the greatest potential for reducing post-release mortality with crew training (Table 2).

Beyond simply better handling techniques, the average length of trailing gear remaining on released animals is also known to influence post-release survival rates. Reducing the length of trailing gear on all protected species is a focus in current crew training efforts. Tagging data from the Hawaii and American Samoa longline fisheries indicate that reducing the amount of trailing gear left on sharks from 10m to 1m or less is expected to reduce post-release mortality by 3 to 4% (Hutchinson and Bigelow 2019; Hutchinson et al. 2021). Similarly, removing all gear from leatherback turtles in the Hawaii DSLL fishery is expected to reduce the post-release mortality rate by approximately 5%, based on past observer data and post-release mortality estimates derived from Ryder et al (2006).

Potential reduction in post-release mortality from crew training for oceanic whitetip sharks, leatherback turtles, false killer whales and giant manta rays are discussed in further detail below.

Table 2. Average number of participating vessels, protected taxa interactions by vessel, and average number of interactions where protected species were brought to the vessel alive across fisheries in the most recent five years of the fishery.

	Annual average interactions per vessel	***Annual average interactions with live animal per vessel (% alive at vessel)***
Hawaii SSLL Fishery (average 18.4 vessels participating per year, 2019-2023)		
Sea turtles	1.7	1.7 (100%)
Seabirds	2.9	2.4 (81%)
Marine Mammals	0.3	0.2 (88%)
ESA-listed Elasmobranchs	1.4	1.2 (89%)
Hawaii DSLL Fishery (average 147.8 vessels participating per year, 2019-2023)		
Sea turtles	0.8	0.3 (34%)
Seabirds	5	0.3 (5%)
Marine Mammals	0.6	0.4 (67%)*
ESA-listed Elasmobranchs	16.4	12.3 (75%)
ASLL Fishery (average 12.2 vessels participating per year, 2019-2023)		
Sea turtles	2.3	0 (0%)
Seabirds	0.2	0 (0%)
Marine Mammals	0.6	0.4 (71%)*
ESA-listed Elasmobranchs	46.5	31.1 (67%)

*2016-2020 data, 2019-2023 estimates not yet available

Oceanic Whitetip Sharks

Tagging data from the Hawaii and American Samoa longline fisheries indicate that reducing the amount of trailing gear left on sharks reduces post-release mortality (Hutchinson and Bigelow 2019; Hutchinson et al. 2021).

Hutchinson et al (2021) evaluated the combined effects of the length of trailing gear and leader material on post-release survivorship at 60 days after release using telemetry tagging and observer data (Table 3). The Hawaii deep-set longline fishery now uses monofilament leaders following the prohibition of wire leaders in the fishery (83 FR 4153; effective May 2022). When using monofilament leaders, reducing trailing gear from 10m to 1m or less would increase post-release survivorship of oceanic whitetip sharks released alive by 3-4%, with the median post-release survivorship increasing from 0.93 when released with 10m of trailing gear to 0.97 when removing all trailing gear. Tagging data indicate that post-release survivorship of sharks is similar (0-1% difference) when released with 1 m of trailing gear compared to 0 m of trailing gear (Hutchinson et al. 2021). If crew training leads to reduced average length of trailing gear on released protected species, we would expect a modest reduction in post-release mortality in oceanic whitetip sharks released alive.

Table 3. Oceanic whitetip shark survival projections for monofilament leaders and remaining trailing gear based on the 60-day post-tagging data.

Trailing gear	Median Survivorship (90% CI)
10m	0.93 (0.77–0.98)
1.8m	0.96 (0.88–0.99)
Removed (0m)	0.97 (0.89–0.99)

Source: Hutchinson et al. (2021)

Observer data from the protected elasmobranch interaction events and handling form suggests that the pilot training program initiated in April 2024 may be contributing to improved oceanic whitetip shark handling outcomes. The form was implemented in 2022, the same year the Pelagic FEP Regulatory Amendment prohibiting wire leaders in the Hawaii deep-set longline fishery and requiring removal of trailing gear for oceanic whitetip sharks in all longline fisheries went into effect (83 FR 4153; effective May 2022). Prior to the wire leader prohibition, the line was rarely cut below the weight due to difficulty of cutting through the wire from deck height, and the best available estimate of the average length of trailing gear remaining on an oceanic whitetip shark in the Hawaii deep-set longline fishery was 5.44 m (Hutchinson et al. 2021). In 2022-2023, approximately 30% of oceanic whitetip shark interactions reported on the form had line cut below the weight, and 51% of events had sharks released with 1 m or less line remaining (

Table 4). In 2024, these handling outcomes increased to 46% of events with line cut below the weight and 60% of events released with 1 m or less line remaining.

Table 4. Summary of oceanic whitetip shark interaction events in the Hawaii deep-set longline fishery reported on the observer program's elasmobranch form, 2022-2024.

Year	Total oceanic whitetip events recorded on form	% of events with line cut below weight	% of events with ≤1m line remaining	Average length of branch line left
2022a	327	29%	51%	2.8m
2023	440	30%	51%	2.7m
2024	816	46%	60%	2.5m

[a] Partial year data; first record on form was on April 29, 2022.

Leatherback Turtles

In the BiOps for the Hawaii and American Samoa longline fisheries, NMFS uses mortality coefficients from Ryder et al. (2006) to assign post-interaction mortality rates to turtles that were alive when they were brought alongside the fishing vessel (NMFS 2019, NMFS 2023a,b). Ryder et al. (2006) assign post-interaction mortality rates based on the location of the hook, whether the turtle was released with or without the hook, the amount of trailing line remaining at release, and whether or not the turtle was entangled.

Based on this rubric, post-interaction mortality is closely linked to the amount of gear (hook and/or line) remaining on the turtle at release. For leatherback sea turtles captured in the Hawaii deep-set longline fishery (NMFS 2023a), we assessed how much post-interaction mortality would have been improved if all gear was removed from turtles that were released alive for observed captures from 2004 to 2023. For the 50 observed leatherback captures from 2004 to 2023, the estimated mortality rate, inclusive of at-vessel and post-interaction mortality, is 33%. If all gear had been removed from those turtles released alive, the total mortality rate would have declined to 27%. For context, in the 2023 Hawaii DSLL BiOp, NMFS estimated that 92 leatherback turtles would be captured over 5 years. With the total mortality rate of 33%, 30 of the estimated 92 captures would be expected to die. Reducing the mortality rate to 27% would result in 25 of the 92 captured turtles dying, or 5 fewer mortalities over a 5-year period. Focusing only on adults, the 2023 biological opinion estimated that 44% of captures are adults, or an anticipated 40 adult captures over 5 years with a 24% mortality rate. This equates to 10 adult mortalities over 5 years. If all gear had been removed from the live-release adults, the mortality rate would decrease to 19%, resulting in 8 mortalities over 5 years.

False Killer Whales

Most false killer whale interactions in the longline fisheries are live captures that result in the animal being released alive. Based on NMFS' Serious Injury (SI) Determination Policy (Policy Directive 02-238 and Procedural Directive 02-238-01), small cetaceans released alive are assigned to SI or non-serious injury (NSI) categories based on the type of injury, amount of gear remaining, and other conditions specific to each interaction. In general, small cetaceans released with trailing gear that may become a constricting wrap or with a hook in the head or mouth area (unless hook is confirmed to be in the lip only) are categorized as SI, whereas the animal may be categorized as NSI if the hook is removed and has no further injury.

The False Killer Whale Take Reduction Plan (FKWTRP) implemented under the Marine Mammal Protection Act (MMPA) requires Hawaii deep-set longline vessels to use weak hooks with a minimum branch line strength requirement, intended to allow the hook to straighten and false killer whales to pull free of the hook if tension is placed on the line. However, the success rate of hook straightening has been low (<10% of observed false killer whale interactions between 2013-2022) due to a combination of factors including line breakage and crew safety concerns with gear flyback. In response, the Hawaii longline industry representatives developed a fighting line device (FLD) designed to slide down the branch line and catch below the weight positioned within 1 meter of the hook, to allow crew to create tension on the leader line in a safe manner when attempting to straighten the hook. HLA has distributed FLDs to vessels in the fleet. While the use of the FLD is currently voluntary, the in-person pilot crew training program initiated in April 2024 incorporated a demonstration of the FLD during the training sessions to encourage use of the device.

The combination of crew training and voluntary use of FLD has the potential to reduce the proportion of false killer whales released alive that are categorized as mortality and serious injury (MSI). The extent of the reduction would depend on the crew's ability to implement best practices under real-life fishing conditions, but an upper bound can be estimated using past observer data.

From 2013 to 2022 there were 91 observed false killer whale captures in the Hawaii deep- and shallow-set fisheries. Of those, eight were dead at-vessel. Of the remaining 83 whales, 14 were categorized as NSI, five could not be determined and 64 categorized as SI. For the 64 SI determinations, we consider whether the use of FLD (or other improvements to handling to increase the success rate of hook straightening) could have changed the interaction outcome from SI to NSI. The outcome could not have changed for 46 of the 64 SI cases because of one of the following conditions:

- The hook was ingested (2) or there was potential for ingestion (30)
- The whale was entangled (4)
- The branch line broke (3) or was lost (2) immediately
- The branch line was tangled (5)

Of the remaining 18 SI events, the line was cut immediately by the crew in three of the events. For one of those three line cutting events there was a potential for hook ingestion but in the other two cases the FLD could have been successfully deployed. For the remaining 15 serious injury determinations, the FLD could have been successfully deployed as there were no entanglements or potential for ingestion. Hence, overall, up to 17 of the 64 SI determinations could have been reduced to NSI, or up to a 27% reduction in SI determinations with use of the FLD. Total MSI from 2013 to 2022 would have been reduced from 72 to 55, or up to a 24% reduction in the number of MSI determinations, if all of the cases in which FLD could have been deployed had resulted in successful hook removal. In terms of the proportion of MSI to all observed interactions, successful deployment of FLD could have reduced the MSI rate from 84% (72 MSI out of the total 91 observed interactions) to 64% MSI (55 MSI out of the 91 total).

Observer data since the pilot crew training program began is limited due to the rare nature of false killer whale interactions, and thus direct observer data to validate this assumption are not yet available.

Giant Manta Rays

There is limited information available regarding at-vessel mortality and very little is known about post-release survivorship for giant manta rays and other mobula species captured in longline fisheries (Coelho et al. 2012, Mas et al. 2015). However, recent tagging efforts in the Hawaii longline fishery are intended to contribute data to better understand fate for these species when released after interaction. While it is not possible to directly estimate post-release mortality rates by species with the data collected to date, researchers anticipate that crew training could benefit giant manta rays and other mobula species if fishers were to follow best handling and release practices for the removal of trailing gear. To date, 11 individuals representing four mobula species have been successfully tagged with satellite tags, demonstrating high post-release survival rates when best handling practices are used.

1.1.5 Initial Council Actions

The Council at the 197th meeting in December 2023, directed the formation of an interdisciplinary BiOp RPM Implementation Working Group (BiOp RPM WG) with appropriate participants from NMFS Pacific Islands Fisheries Science Center (PIFSC), NMFS PIRO, Council staff, industry representatives, and other collaborative partners as necessary to facilitate coordination for implementing this requirement.

The Council at the 199th meeting endorsed the BiOp RPM WG report on the progress of developing a crew training program for the Hawaii and American Samoa longline fisheries and the proposed timeline for developing a regulatory requirement with final action anticipated at the June 2025 meeting. The Council directed the formation of an Action Team to initiate development of a regulatory requirement for Hawaii and American Samoa longline crew training consistent with the BiOp RPM term and condition (T&C), and develop an options paper for the Council's consideration at the September 2024 meeting.

Based on the information provided in the options paper, the Council at its 200th Meeting in September 2024, recommended a scope of actions for further consideration. Specifically the Council directed the Action Team to prepare a draft regulatory amendment under the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region (Pelagics FEP) which analyzes the following range of options for initial action at the December 2024 meeting: a) implement a crew training consistent with BiOp RPM T&C; and b) update the owner/operator PSW requirement to allow overlap with crew training requirement.

The Council at the 201st meeting in December 2024 took initial action on the regulatory amendment and directed the Action Team to refine the regulatory approach for implementing the crew training and person-on-deck requirement under Alternative 1, taking into consideration recommendations from the advisory groups, and provide an update at the March 2025 meeting in advance of Council final action at the June 2025 meeting. The Council additionally requested NMFS to make the crew training program accessible to fishery participants and work with the

Council and Hawaii and American Samoa longline fishery representatives to explore an appointment scheduling system that would facilitate greater participation in the training sessions. The Council at the 202nd meeting in March 2025 received a status update from the Action Team and endorsed the revised regulatory approach, provided that NMFS continues to provide accessible video-based training that can accommodate vessel departure schedules.

The Council at its 203rd meeting on June 9-11, 2025, will consider taking final action on the crew training requirements. This draft regulatory amendment evaluates the potential impacts of the alternatives, which incorporate the revised regulatory approach endorsed by the Council at the 202nd meeting.

1.2 Proposed Action

The proposed action is to be determined pending Council final action at its 203rd meeting to be held June 9-11, 2025. If the Council selects a preferred alternative, the action would amend the regulations implementing the Pelagic FEP.

1.3 Purpose and Need for Action

The purpose of this regulatory amendment is to reduce post-release mortality of protected species by addressing a protected species handling and release training gap with crew members, consistent with the recent BiOp RPM T&C, while also allowing flexibility and enhanced operational efficiency for fishermen. The existing PSW training requirement that has been in place since 2001 only applies to longline vessel owners and operators, who are typically not on deck during hauling operations to assist with protected species release in a timely manner.

The action is needed to meet the requirements of T&C 1.b. of the 2023 DSLL and ASLL BiOps and the 2024 SSLL Supplemental BiOp (as revised on May 29, 2025), which requires that, within two years, NMFS SFD make protected species handling training available to all crew members, require each vessel carry at least two persons with approved protected species handling training when on a fishing trip, and have at least one trained person on deck to direct the proper handling and release when an ESA-listed species interaction occurs during fishing gear retrieval. Compliance with this T&C is needed for the exemption in ESA Section 7(o)(2) to apply to the incidental take of protected species during fishing operations in the Hawaii DSLL, SSLL and ASLL fisheries, and to ensure the continued operation of these fisheries.

1.4 Action Area

The action area is the general area of jurisdiction under the Pelagics FEP and includes the operating, or fishing and transiting, areas of longline fisheries based in American Samoa and Hawaii which includes the U.S. EEZ and high seas. Vessels transit longline fishing prohibited areas including the U.S. EEZ around California and Main Hawaiian Islands (MHI) to reach ports in Honolulu, the Los Angeles Area, San Francisco, and San Diego.

1.5 Decision(s) to be Made

The Council will consider final action on the crew training requirements for the Hawaii and American Samoa longline fisheries at the 203rd meeting to be held June 9-11, 2025.

After Council final action, a draft EA will be prepared to support a decision by the Regional Administrator (RA) for NMFS Pacific Island Region, on behalf of the Secretary, whether to approve, disapprove, or partially approve the Council's recommendation. The RA will use the information in the EA to make a determination on whether the proposed action would constitute a major Federal action that has the potential to significantly affect the quality of the human environment. If NMFS determines the action would not significantly affect the quality of the environment, NMFS will prepare a Finding of No Significant Impact (FONSI). If NMFS determines the proposed action is a major Federal action that would significantly affect the quality of the human environment, NMFS will prepare an environmental impact statement before taking action.

1.6 List of Preparers

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1.7 Public Involvement

The development of the proposed action occurred in meetings of the Council and its advisory bodies, which are open to the public and are noticed in the *Federal Register*, local newspapers and publications, and on the Council's website (www.wpcouncil.org). Meeting agendas provide scheduled opportunities for public comment.

At its 199th Meeting held June 24-26, 2024, the Council reviewed the BiOp RPM WG report and directed the formation of an Action Team to initiate development of a regulatory requirement for Hawaii and American Samoa longline crew training consistent with the BiOp RPM term and condition (T&C). The Council's Pelagic Plan Team, Fishing Industry Advisory Committee, Hawaii and American Samoa FEP Advisory Panels, and the SSC also met in May and June 2024 to review the WG report.

At its 200th Meeting held September 23-25, 2024, reviewed the options paper and recommended a scope of actions for further consideration and directed the Action Team to prepare a draft regulatory amendment under the Pelagic FEP. The Fishing Industry Advisory Committee and the Hawaii and American Samoa FEP Advisory Panels also met in September 2024 to review the options paper.

At its 201st Meeting held December 16-17, 2024, the Council considered initial action on the regulatory amendment. The Pelagic Plan Team, Fishing Industry Advisory Committee, and the Hawaii and American Samoa FEP Advisory Panels also met in November and December 2024 to advise on the initial action.

At its 202nd Meeting held March 25-27, 2025, the Council received an update on the development of the action. The Fishing Industry Advisory Committee and the Hawaii and American Samoa FEP Advisory Panels also met in March 2025.

At its 203rd Meeting to be held June 9-11, 2025, the Council will consider taking final action on the regulatory amendment. The following advisory groups will also meet to advise on the final action: the Pelagic Plan Team (May 8-9), American Samoa FEP Advisory Panel (May 27), Social Science Planning Committee (May 27), Hawaii FEP Advisory Panel (May 30), Fishing Industry Advisory Committee (June 2), and the SSC (June 4-6), respectively, to advise on the final action.

After Council final action, NMFS will publish in the *Federal Register* the proposed regulatory amendment to implement the proposed action. The public will have another opportunity to provide a comment on the action, and NMFS will consider public comments on the proposed action before making a decision on the regulatory amendment and publishing the final rule.

2 DESCRIPTION OF THE ALTERNATIVES CONSIDERED

2.1 Development of the Alternatives

As described in Section 1.1, the Council initiated development of a regulatory amendment to implement a crew training requirement for the Hawaii and American Samoa longline fisheries at the 199th meeting in June 2024, after receiving the report of the BiOp RPM WG formed at the 197th meeting in December 2023. As described in Section 1.1.3, PIRO SFD, in coordination with HLA, PIRO PRD, and the Council initiated a pilot crew training program in April 2024, which provided feedback and the basis for considering a regulatory program.

At the 200th meeting in September 2024, the Council reviewed the options paper providing considerations for determining the scope of Council action associated with implementing the crew training requirement as specified in the recent BiOps for the Hawaii and American Samoa longline fisheries. In addition to an option for implementing crew training consistent with the BiOp RPM T&C, the Council also considered options for expanding the scope of the action to include related regulatory updates, including updating the owner/operator protected species workshop requirement, revising the required list of tools for protected species handling and release, and reviewing and updating protected species handling requirements. The Council determined that expanding the scope of the action to include reviews of the required tools and handling procedures would not meet the 2-year timeframe for implementing the RPM T&C, and directed the Action Team to analyze the following range of options as the scope of the draft regulatory amendment:

a. Implement a crew training consistent with BiOp RPM T&C; and
b. Update the owner/operator PSW requirement to allow overlap with crew training requirement

The Council additionally directed the Action Team to take into account considerations for providing the option for American Samoa longline crew to utilize the existing owner/operator protected species workshop to satisfy the crew training requirement.

The Council at the 201st meeting in December 2024 considered initial action on the draft regulatory amendment, which presented an action alternative with sub-alternatives for the regulatory approach for requiring crew training (on-deck requirement or on-board certificate requirement). The Council additionally considered three decision points for defining regulatory specifications under the action alternative, pertaining to the frequency of crew training certification, frequency of owner/operator certification requirement, and flexibilities in certification options between crew and owner/operator. The Council considered recommendations from the Pelagic Plan Team, the Advisory Panels, and the Fishing Industry Advisory Committee, and directed the Action Team to refine the regulatory approach for implementing the crew training and person-on-deck requirement under Alternative 1, taking into consideration recommendations from the advisory groups. The Council also recommended the following regulatory specifications:

a. Annual or two year certification for crew training
b. Maintain annual requirement for owner/operator protected species workshop certification
c. Allow crew certification to be satisfied by owner/operator workshop

The Council additionally requested NMFS to make the crew training program accessible to fishery participants and work with the Council and Hawaii and American Samoa longline fishery representatives to explore an appointment scheduling system that would facilitate greater participation in the training sessions.

The Council at the 202nd meeting in March 2025 received a status update from the Action Team on the revised regulatory approach, a draft revision of the RPM T&C, and the status of the pilot training program. The revised regulatory approach combined the certification requirement with a person-on-deck requirement based on the draft revised RPM T&C. The Council endorsed the revised regulatory approach, provided that NMFS continues to provide accessible video-based training that can accommodate vessel departure schedules.

The Council at its 203rd meeting on June 9-11, 2025, will consider taking final action on the crew training requirements. This draft regulatory amendment evaluates the potential impacts of the alternatives, which incorporate the revised regulatory approach endorsed by the Council at the 202nd meeting.

2.2 Description of the Alternatives

This section describes the alternatives for implementing a crew training requirement for the Hawaii and American Samoa longline fisheries through a regulatory amendment under the Pelagic FEP for Council's consideration of final action at the 203rd meeting in June 2025.

The action alternative (Alternative 1) would revise the existing PSW requirement for vessels registered for use under any longline permit to implement crew training through: 1) a crew certification requirement; and 2) a trained person on deck requirement. The Council may additionally consider recommending the crew certification duration under Sub-Alternatives 1a-1c. Alternative 2 is the No Action alternative. A comparison of the alternatives is summarized in Table 5. The preliminary draft regulations based on Alternative 1 are included in Section 4 of this document.

Under all alternatives, all existing gear, handling and release requirements under the Pelagic FEP would remain in place, and owners and operators of vessels registered for use under any longline permit would continue to be required to attend and be certified for the PSW requirement annually. Longline fisheries operating under the Pelagic FEP would also continue to fish in accordance with regulations that limit participation through permits; require electronic reporting of fishing activity and catch, vessel monitoring systems, and observer placement.

The action alternative would apply to U.S. longline vessels operating under a valid Hawaii or American Samoa longline limited access permit, or a Western Pacific general longline permit. This would include all U.S. shallow-set and deep-set longline vessels based in American Samoa, Hawaii, and the U.S. West Coast.

Table 5. Comparison of the Alternatives.

	Alternative 1: Revise the Longline Fishery Protected Species Workshop Requirement to Implement Crew Training	**Alternative 2: No Action/Status Quo**
Description of the alternative	Amend regulations to revise the PSW requirement for vessels registered for use under any longline permit to implement crew training through: 1) a crew certification requirement intended to address the existing crew training gap; and 2) a trained person on deck requirement that would address the intent of having a trained person immediately available to respond to protected species interactions. Crew training would focus on protected species handling and release. No changes would be made to existing owner/operator PSW requirements.	No changes to regulations to implement a crew training requirement or to update the owner/operator PSW requirement
Certification duration (sub-alternatives)	***Sub-Alt 1a.*** Require certification annually; ***Sub-Alt 1b.*** Require certification every 2 years; OR ***Sub-Alt 1c.*** No expiration for certification.	N/A
Crew training program	Crew training will become a permanent program for the region's longline fisheries. NMFS would continue to offer crew training program at no cost to participating vessels or crew members.	NMFS may continue to provide a non-regulatory crew training program consistent with current best practices for handling and release of protected species.
Reduction in post-release mortality	Expected to reduce post-release mortality as a result of increased proportion of interactions in which best practices for handling and release are followed. Extent of reduction expected to vary by fishery, species and ability for crew to put training into practice in real-life situations on deck.	Any reduction in post-release mortality that may result from the pilot program may be temporary, and may not provide for a long-term reduction in impacts.
Consistency with BiOp T&C	Consistent	Not consistent

2.2.1 Alternative 1: Revise the Longline Fishery Protected Species Workshop Requirement to Implement Crew Training

Under Alternative 1, the Council would recommend amending the regulations implementing the Pelagic FEP to revise the PSW requirement for vessels registered for use under any longline permit to implement crew training consistent with the BiOp T&C. Crew training would focus on protected species handling and release, in contrast to the existing PSW training for longline vessel owners and operators that includes review of regulations on protected species interaction mitigation measures and mitigation techniques in addition to handling and release techniques. NMFS may adjust the implementation details of the crew training program such as the format, content, and schedule to ensure that the best available protected species handling information is presented consistent with plans outlined in section 1.1.3 and available resources. NMFS will continue to offer the crew training program at no cost to the participating vessels or crew members. Crew members may satisfy the crew training requirement by completing the full PSW training currently required for owners and operators. No changes would be made to the existing training requirements for vessel owners and operators.

The regulations would be amended to include two components: 1) crew certification (i.e., minimum 1 crew certified, NMFS issues certificate, minimum 1 certificate on board) intended to address the existing crew training gap; and 2) a trained person on deck requirement that would address the intent of having a trained person immediately available to respond to protected species interactions. Details of each component are described below.

Crew certification requirement: The regulation would specify that a minimum of one crew per vessel be certified for crew training, NMFS would issue a certificate for completion of crew training, and require a minimum of one crew's training certificate to be on board the vessel.

These certification requirements would be similar to the existing vessel owner/operator PSW specifications (50 CFR 665.814). Specifically, regulations would specify that crew attend and be certified for completion of protected species handling training, NMFS would issue a certificate to each crew member upon completion of the workshop, and the vessel owner and operator would be required to have on board the vessel a valid certificate (or a legible copy) for one or more crew members while engaging in longline fishing for western Pacific pelagic MUS under the Hawaii, American Samoa, or Western Pacific general longline permit.

This provides a clear requirement to fill the existing training gap, facilitate having a trained person on deck (captain and at least one crew on board would be certified), and provides a clear enforcement mechanism. Enforcement of the requirement to have on board the vessel a valid certificate (or a legible copy) for one or more crew members while engaging in longline fishing would be performed similarly to the required PSW certificate to be onboard. This is typically limited to vessel inspections, post protected species interaction investigations, and USCG boarding operations. Future enforcement could involve requests to the vessel operator for identification of the trained individuals onboard during protected species interactions.

Person on deck requirement: The regulation would specify that at least one trained person must be on deck to direct the proper handling and release when a protected species interaction occurs during fishing gear retrieval. The one trained person is generally expected to be the trained crew

member as the vessel operator is typically not on deck during hauling, but this requirement would provide flexibility for the operator to direct the proper handling and release of a protected species if the trained crew member is not immediately available. The person-on-deck requirement is intended to help ensure that a trained crew or operator is available to act as "first responders" for protected species handling.

The vessel owner and operator would be responsible for complying with the person on deck requirements, and has the discretion to assign at least one crew member who has completed crew training to oversee and direct activities during hauling operations. Observers will not have a direct role in verifying the T&C requirement that a trained person is on deck when interactions with protected species occur. Observers collect information used to determine the outcome of protected species interactions. If there appears to be a violation in protected species handling as reported by the observer, NOAA OLE may utilize the observer's interaction reports and information on the number of trained persons on board to determine whether a violation in the training requirement or person-on-deck requirement may have occurred.

Enforcement of the person-on-deck requirement may change in the future. With the move to electronic monitoring (EM) on individual vessels, future enforcement could involve requirements to identify the trained person on deck during protected species interactions in the logbook. This enforcement approach is not available now, as EM is currently not required in any Western Pacific longline fisheries, although the Council plans to consider a recommendation for EM at their 203rd meeting in June 2025.

Sub-Alternatives for Certification Duration

The Council may recommend the frequency of crew training recertification from the following Sub-Alternatives:

Sub-Alternative 1a. Require certification annually (NMFS-issued certificate would have a one-year expiration date);

Sub-Alternative 1b. Require certification every 2 years (NMFS-issued certificate would have a two-year expiration date); OR

Sub-Alternative 1c. No expiration for certification (NMFS-issued certificate would not have any expiration date).

The BiOp RPM T&C did not specify the recertification frequency. The existing PSW certification for vessel owners and operators is required annually. The Council may specify the frequency for crew training recertification by taking into account crew turn-over rate, potential effects on the handling and release outcomes, training burden for fishery participants, and administrative burden.

Most longline vessel crew members stay in the fishery for 1-3 years at a time, with 2 years being most common, due to their crew contract lengths. Some crew choose to extend their contract to continue to work in the fishery, and this extension typically requires the crew member to return to their country of origin for a period of time before returning to the fishery. Vessel owners and captains have been supportive of sending crew to the pilot training program initiated in April 2024, to improve their crews' knowledge, preparedness, safety, and awareness while dealing with large animals and protected species interactions. In the first six months of the pilot training

program, 447 individuals across 97 vessels were trained, indicating that vessels were sending most or all of their crew to the training sessions even though the pilot program is voluntary. Over the six pilot crew training days (13 individual sessions) from April to September 2024, 14 of 91 vessels have had crew more than once due to new crew, change of crew, or split in attendance between monthly training sessions. In that period, 3 of the vessels have had entire crew changes. These attendance data indicate that crew regularly turn over in the fishery, but training attendance is high.

As described in section 1.1.3, NMFS plans to transition to an in-person video-based training to be offered on a weekly basis, with individual vessel accommodations made as needed. While the regulations under Alternative 1 would require at minimum one crew member per vessel to be certified, the planned training format is expected to make the training sessions easily accessible to all crew members. Thus, regardless of the required certification frequency, it is expected that vessel owners and captains will continue to send most or all of their crew to training sessions. Further, crew members who have been previously certified would have opportunities for retraining when new crew members on their vessel are trained, and vessels are likely to have multiple crew members who have completed training at any given time.

If vessel owners and operators decide to only have one crew member trained at a time to comply with the minimum number that would be required under regulations, the annual certification may be more effective in improving crew handling of protected species. As described in Section 1.1.4, interactions with most protected species are rare events in the Hawaii and American Samoa longline fisheries. For the rarer species groups such as sea turtles and marine mammals, crew members may or may not encounter an interaction in any given year, and thus annual certification may help crew retain information on handling and release best practices compared to a 2-year certification or having no expiration to the certification. However, as previously described, vessel owners and operators are expected to continue sending most or all of their crew members to training sessions, and thus crew members are likely to attend more than one training session if they stay in the fishery for 2 or 3 years.

NMFS will offer the crew training program at no cost to the vessel owner, operator, or crew, and thus retraining frequency would not affect the training burden for the fleet.

Requiring annual certification would increase the administrative costs for NMFS to run the program compared to certification frequency of 2 years or having no expiration, as program-associated work loads and administrative duties (e.g., database management, program updates, correspondence, expiration notifications) are likely to be higher with annual recertifications. Annual purchases (e.g., interpreter fees, translation, recording) and coordinator staff time will be similar between the two options as NMFS expects to offer weekly crew training sessions regardless of recertification frequency. NMFS may develop a self-guided recertification option, similar to the current owner/operator workshop, to reduce administrative burden, ensure ease of access for crew members, and remove barriers to fishing for owners and operators. This would also ensure the program's ability to run independently of the program administrator, including ports outside of Honolulu in California and American Samoa.

Expected Fishery Outcome

A regulatory requirement for crew training and a valid certificate on-board for at least one crew member per vessel would help ensure crew training will become a permanent program for the region's longline fisheries, and that there would be at least two trained persons on each longline vessel (operator and crew) for consistency with the BiOp RPM T&C. The combination of the crew training requirement including a requirement that a person with protected species handling training is on deck who oversees and directs activities when a protected species interaction occurs during fishing gear retrieval (person-on-deck requirement) is anticipated to reduce post-release mortality of protected species and generally improve outcomes of protected species interactions with fishing gear in these fisheries. As described previously, this reduction in mortality is anticipated because the proportion of interactions in which best practices for handling and release are followed is expected to increase, including releasing animals with minimal or no trailing gear remaining. The extent of post-release mortality reduction is expected to vary by fishery, species, and the ability for crew to put into practice the best handling and release training in real-life situations on deck. As described in Section 1.1.4 above the anticipated benefit for protected elasmobranchs and leatherback turtles based on our analysis is a 3-5% reduction in post-release mortality.

Implementing a requirement for one or more trained crew certificates on board the vessel and person-on-deck requirement under the Action Alternative is not expected to affect fishing effort, operations, areas fished, species targeted, or other fishery resources managed under the Pelagic FEP. This Action Alternative is not expected to increase socioeconomic impacts to fishery participants, as the training will be provided at no cost to vessels that choose to participate and the training program will be offered weekly as in-person video training for Hawaii-based vessels. Training for American Samoa-based vessels are conducted on an individual vessel basis, and usually done concurrently with the owner/operator training. Additional flexibility will also be provided circumstantially for vessel owners and operators to administer the video-based training to their crew at sea (e.g., Crew pickup trips that wish to fish on their way back; coordinator's inability to accommodate training due to scheduling or location). These flexibilities will minimize the potential that a vessel needs to delay departure while waiting for new crew to be trained.

While the regulations would specify that at least one crew member to be certified and maintain a valid certificate on board, NMFS will continue to make the training program available to all crew members at no cost to the vessels. Hawaii and American Samoa longline vessels typically have all of their crew on board (usually 5-6 crew members, with a range of 4-8) involved during hauling operations, and crews perform a variety of tasks throughout their fishing trip to meet their operational and safety functions. The more crew that have been trained, the more flexibility each vessel will have in meeting the person-on-deck requirement when a protected species interaction occurs.

Allowing crew to take the owner/operator workshop to satisfy the training requirement provides a practical substitute for the ASLL fishery. Crew members in the ASLL fishery commonly attend the existing PSW training with the vessel owner and operator, as the in-person training option can be hosted on their vessel by NMFS staff based in American Samoa. In recent years, there have been between 9 and 11 longline vessels operating exclusively from American Samoa, with

crew size of 3 to 5 individuals per vessel. Overall, the ASLL fishery has about 40 to 50 crew members, most of whom are English-speaking. It is likely that the existing PSW training for owners and operators will provide the platform for meeting the crew training requirement in the ASLL fishery. Allowing crew to take the owner/operator workshop may also provide flexibility for English-speaking crew of Hawaii-based vessels as needed to ensure timely access to training sessions to prevent delays in fishing trips.

2.2.2 Alternative 2: No Action (Status Quo/Current Management)

Under Alternative 2, the Council would not recommend changes to the regulations implementing the Pelagic FEP to implement a crew training requirement or any other associated regulatory changes. Under this no-action alternative, NMFS may continue to provide a non-regulatory crew training program consistent with the current best practices for handling and release of protected species, but no regulatory requirement would be implemented to require that crew members from the Hawaii and American Samoa longline fisheries participate in such a program or that a trained person be on deck during fishing activities.

Expected Fishery Outcomes

The pilot crew training program has been successful in terms of the number of crew attending each training session. PIRO is now transitioning the pilot into an ongoing training program, and expects to continue offering the program regardless of a regulatory requirement. Although the pilot training partners and vessel owners/operators are all contributing to the success to date, we anticipate that participation by all vessels in the fishery would not be sustained in the long-term unless it is required. Securing funding to support ongoing crew training without a regulatory requirement may also be challenging. Therefore, any reduction in post-release mortality that may result from the pilot program may be temporary, and may not provide for a long-term reduction in impacts.

The No Action/Status Quo alternative would also be inconsistent with the BiOp RPM T&C, which require each vessel carry at least two persons with approved protected species handling training when on a fishing trip, and have at least one trained person on deck to direct the proper handling and release when an ESA-listed species interaction occurs during fishing gear retrieval.

2.3 Alternatives Considered, but Rejected from Further Analysis

In the development of this action, the Council considered a broader range of options that may be included as part of the crew training action. Alternatives considered by the Council but rejected from further consideration are described below.

Require all crew to have a certificate on board

This alternative would have required all crew members to have a valid certificate on board. Requiring all crew members' training certificates to be on board is likely to create burden in the form of delayed vessel departures, as crew turn-over schedules may not coincide with the scheduled monthly trainings, and there are situations where having all crew training certificates on board may be challenging, such as on crew pick up trips when new crew would not have had the opportunity to be trained prior to their arrival in Honolulu or when crew is being turned over.

The Council determined that requiring a number less than the total crew complement to have crew training certificates would have a lower operational impact on the vessel while still demonstrating a high level of compliance with the crew training and trained person on deck requirement.

Modifying the existing owner/operator PSW certification requirement

The Council considered whether changes to the owner/operator PSW certification requirement may be warranted for consistency with the crew training requirements and to provide additional flexibilities. Options considered included modifying the frequency of owner/operator certification requirement for consistency with the crew training requirement (if crew training was to be recommended at every 2-3 year intervals) and allowing owner/operators to substitute the full PSW certification with the crew certification at certain intervals. The Council did not recommend any modifications to the existing owner/operator PSW requirements, recognizing the importance of annual certification for owners and operators that includes a broader range of topics than crew training focused on protected species handling. The vessel owner/operator PSW was originally developed to reduce the likelihood of protected species interactions by making fishermen more aware of the impact of interactions on protected species populations and measures to mitigate those interactions. As such, the owner/operator PSW curriculum covers information on regulatory requirements for operation in the fleet, gear requirements, mitigation measures, species identification, in addition to the complete set of best practices guidance for protected species handling and release. The existing annual certification for owners/operators helps ensure they are aware of new requirements implemented in the past year in addition to providing regular refreshers on existing requirements. The existing PSW certification program also provides flexibility and minimize burdens by offering training sessions multiple times per month as in-person workshops or as hybrid webinars that can be attended either in-person or virtually. Additionally, an online self-guided course option is available for owners who have taken the in-person or hybrid training once before. The online training option may also be taken by operators for up to two consecutive years after attending an in-person or hybrid workshop before an in-person or hybrid workshop attendance is required again.

Revising existing requirements for protected species handling methods and tools

The Council considered expanding the scope of the action to include a review and revision of existing requirements for protected species handling methods and tools. Specifically, the Council at the 200th meeting in September 2024 considered whether to review and potentially modify the required list of tools for protected species handling and release to match the best practices currently taught in the crew training program, and/or revise and update protected species handling requirements more generally. The Council determined that these reviews would likely result in a delay in implementing the crew training requirement by the two-year deadline in the BiOp RPM T&C, and directed staff to work with industry and NMFS to initiate a review of the existing tools and handling requirements in a separate process.

3 REFERENCES

Coelho, R., J. Fernandez-Carvalho, P. G. Lino, and M. N. Santos. 2012. An overview of the hooking mortality of elasmobranchs caught in a swordfish pelagic longline fishery in the Atlantic Ocean. Aquatic Living Resources 25:311-319.

Hutchinson, M. and K. Bigelow. 2019. Quantifying post release mortality rates of shark bycatch in Pacific tuna longline fisheries and identifying handling practices to improve survivorship. In: 15th Regular Session of the WCPFC Scientific Committee, Pohnpei, Federated States of Micronesia. WCPFC-SC15-2019/EB-WP-04,

Hutchinson, M., Z. Siders, J. Stahl, and K. Bigelow. 2021. Quantitative estimates of post-release survival rates of sharks captured in Pacific tuna longline fisheries reveal handling and discard practices that improve survivorship. PIFSC Data Report, DR-21-001, 56 p. 10 March 2021.

Mas, F., R. Forselledo, and A. Domingo. 2015. Mobulid ray by-catch in longline fisheries in the south-western Atlantic Ocean. Marine and Freshwater Research 66:767-777.

NMFS. 2019. Biological Opinion on the Continued Authorization of the Hawaii Pelagic Shallow-Set Longline Fishery Honolulu, HI. p. 506.

NMFS 2023a. Biological Opinion on the Authorization of the Hawaii Deep-Set Longline Fishery. National Marine Fisheries Service, Pacific Island Regional Office, Honolulu HI. 419 p.

NMFS 2023b. Biological Opinion on the Authorization of the American Samoa Longline Fishery. National Marine Fisheries Service, Pacific Island Regional Office, Honolulu HI. 336 p.

NMFS 2024. Biological Opinion on the Supplement to the Authorization of the Hawaii Shallow-set Longline Fishery; Effects to North Pacific Loggerhead Sea Turtles. National Marine Fisheries Service, Pacific Island Regional Office, Honolulu HI. 83 p.

Ryder, C. E., T. A. Conant, and B. A. Schroeder. 2006. Report of the Workshop on Marine Turtle Longline Post-Interaction Mortality. U.S. Dep. Commerce, NOAA Technical Memorandum NMFS-F/OPR-29. 36 p. https://repository.library.noaa.gov/view/noaa/23893

WPRFMC. 1999. Measures to reduce the incidental catch of seabirds in the Hawaii longlin fishery: A Draft Framework Adjustment to the Western Pacific Pelagic Fisheries Management Plan. Honolulu, Hawaii. Draft document prepared for the 101st Council meeting, September 1999.

WPRFMC. 2002a. Measures to reduce the incidental catch of seabirds in the Hawaii longline fishery: A Framework Adjustment to the Western Pacific Pelagic Fisheries Management Plan. Honolulu, Hawaii. https://www.wpcouncil.org/pelagic/Documents/FMP/Framework2.pdf

WPRFMC. 2002b. Measures to reduce the incidental catch of sea turtles in the Pelagic Fisheries of the Western Pacific Region: A regulatory amendment under the Pelagic Fishery Management Plan of the Western Pacific Region. Honolulu, Hawaii. https://www.wpcouncil.org/pelagic/Documents/FMP/RegulatoryAmendment1.pdf

WPFMC. 2009. Fishery Ecosystem Plan for Pacific Pelagic Fisheries of the Western Pacific Region. Honolulu, HI. p. 251.

WPFMC. 2023. Annual Stock Assessment and Fishery Evaluation Report for the Pacific Pelagic Fisheries Fishery Ecosystem Plan 2021. T Remington, M Fitchett, A Ishizaki (Eds.). Honolulu: Western Pacific Regional Fishery Management Council. https://www.wpcouncil.org/wp-content/uploads/2023/07/Pelagic-FEP-SAFE-Report-2022-Final_v5.pdf

Zollett, E. A. and Swimmer, Y. 2019. Safe handling practices to increase post-capture survival of cetaceans, sea turtles, seabirds, sharks, and billfish in tuna fisheries. Endangered Species Research. 38:115-125.

4 DRAFT PROPOSED REGULATIONS

This section contains the draft proposed regulations necessary to implement the conservation and management measures described in the regulatory amendment, based on the Alternative 1 (action alternative), which would revise the longline fishery protected species workshop requirement to implement crew training.

PART 665 -– FISHERIES IN THE WESTERN PACIFIC

1. The authority citation for 50 CFR part 665 continues to read as follows:

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

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§ 665.802 Prohibitions.

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(cc) Own or operate a vessel registered for use under any longline permit issued under § 665.801 while engaged in longline fishing for western Pacific pelagic MUS and fail to be certified for completion of a NMFS protected species workshop, in violation of § 665.814(a).

(dd) Own or operate a vessel registered for use under any longline permit issued under § 665.801 while engaged in longline fishing for western Pacific pelagic MUS without having on board ~~a~~ valid protected species workshop certificates issued by NMFS or a legible copy thereof, in violation of § 665.814(d).

* * * * *

§ 665.814 Protected species workshop.

(a) Each year, both the owner, and the operator, and at least one crew member of a vessel registered for use under any longline permit issued under § 665.801 must attend and be certified for completion of a workshop conducted by NMFS on interaction mitigation techniques for sea turtles, seabirds and other protected species. The crew member training will focus on protected species handling and release.

(b) A protected species workshop certificate will be issued by NMFS annually to any person who has completed the workshop. [*NOTE: additional regulatory revisions may be made to this provision if the Council selects Sub-Alternative 1b (crew certification requirement every 2 years) or 1c (no expiration for crew certification)*]

(c) An owner of a vessel registered for use under any longline permit issued under § 665.801 must have a valid protected species workshop certificate issued by NMFS to the owner of the vessel, in order to maintain or renew their vessel registration.

(d) An owner and an operator of a vessel registered for use under any longline permit issued under § 665.801 must have on board the vessel a valid protected species workshop certificate

issued by NMFS under § 665.814(b) to the operator and at least one crew member of the vessel, or a legible copy thereof.

(e) The owner and operator of any vessel registered for use under a longline permit specified in 665.801 shall ensure that a person with a valid protected species workshop certificate identified in § 665.814(d) is on deck to direct the proper handling and release when a protected species interaction occurs during fishing gear retrieval.