



Options Paper
Defining the Scope of Council Action Associated with
Implementing a Crew Training Requirement for
the Hawaii and American Samoa Longline Fisheries

200th Council Meeting
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1 INTRODUCTION

Recent Biological Opinions (BiOps) for the Hawaii deep-set longline (DSLL), Hawaii shallow-set longline (SLL), and the American Samoa longline (ASLL) fisheries included a requirement to implement crew training on protected species handling and release. The Reasonable and Prudent Measures (RPMs) defined in the DSLL and ASLL BiOps contain a requirement to, at a minimum, have one trained person on deck who directs and oversees activities of the vessel when retrieving fishing gear by May 2025.

The Western Pacific Regional Fishery Management Council (Council or WPRFMC), at the 197th meeting in December 2023, directed staff to convene an interdisciplinary BiOp RPM Implementation Working Group (BiOp RPM WG) with appropriate participants from National Marine Fisheries Service (NMFS) Pacific Islands Fisheries Science Center (PIFSC), NMFS Pacific Islands Regional Office (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.

2 PURPOSE OF THIS OPTIONS PAPER AND COUNCIL CONSIDERATION AT THE 200TH MEETING

This options paper provides 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. The paper also reviews preliminary considerations for crew training regulatory implementation.

The following range of options is presented:

- 1) Option 1: Status Quo/No Action – No regulatory implementation of crew training
- 2) Option 2: Implement a crew training requirement consistent with BiOp RPM T&C
- 3) Option 3: Expand scope of the action to include related regulatory updates
 - a) Option 3A: Update the owner/operator protected species workshop requirement to allow overlap with crew training requirement
 - b) Option 3B: Revise required list of tools for protected species handling and release
 - c) Option 3C: Review and update protected species handling requirements

At its 200th meeting in September 2024, the Council will consider the options 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. The Council may recommend a range of options for further analysis, recommend further development of the options, recommend inclusion of additional options, or recommend no action be taken at this time.

The Council may also direct the Action Team to initiate development of a regulatory amendment for the selected scope of action, and prepare the analysis for Council initial action at the December 2024 meeting.

3 BACKGROUND INFORMATION

3.1 Existing Protected Species Workshop Requirement for Vessel Owners and Operators

Vessel owners and operators have been trained on protected species handling and release techniques and associated regulatory requirements since 2001; an approach aimed to mitigate effects of protected species interactions with fishing gear. The Council initially recommended an annual protected species workshop (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. However, the requirement was not implemented through regulations until 2001, and initially promulgated as an emergency interim rule in response to a U.S. Fish and Wildlife Service BiOp 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,¹ through Regulatory Amendment 1 of the Pelagic FMP in June 2002 (WPRFMC 2002b).

Current implementing 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 be certified 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)).

These protected species workshop (PSW) trainings are provided as often as weekly at the National Oceanic and Atmospheric Administration (NOAA) office at Pier 38. The PIRO Sustainable Fisheries Division (SFD) 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 or LMS. Vessel owners who do not operate a vessel may recertify with the online LMS annually after attending an in-person workshop or hybrid webinar once. 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, the workshop 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, but crew would currently have to be trained in Hawaii. Training in California could be considered in the future.

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 owner, captain, and crew together. Many of the crew are American Samoa residents who can easily access the local NOAA offices and the onboard option ensures captains who want their crews trained have had the option.

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

¹ The American Samoa limited access permit was established in 2005.

are distributed through 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 website² and the NMFS Digital Resource Library.³ 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 2022.⁴

The existing course outline with associated Regulatory Sections covered during the 2 hour and 15 minute workshops are listed in Appendix A. The course covers mitigation measures and handling regulations implemented under the Pelagic FEP (50 CFR 665), Federal laws (e.g. MMPA; 50 CFR 229), and fishery conservation and management measures provided for in international treaties, conventions, or agreements (50 CFR 300).

3.2 BiOp Reasonable and Prudent Measure Terms and Conditions

The 2023 Hawaii DSLL and ASLL BiOps, issued in May 2023, included a RPM T&C requiring crew training on best practices for handling and release of incidentally captured protected species. In addition, a Supplemental BiOp for the Hawaii SSL fishery focused on loggerhead sea turtles issued in March 2024 included RPM and T&C regarding crew training. The T&C is the same in both 2023 BiOps and the 2024 Supplemental shallow-set BiOp, and requires the NMFS SFD to:

(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 require species handling training for crew members and at a minimum have one trained person on deck who directs and oversees activities of the vessel when retrieving fishing gear. Training shall include best practices identified in 1.a above."

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 branchline), line cutting devices, and other gear modifications."

The Council's BiOp RPM WG considered these crew training related terms and conditions in early 2024 and presented a report to Council at the 199th meeting, in June 2024. A focus of that

² <https://www.fisheries.noaa.gov/pacific-islands/resources-fishing/pacific-islands-protected-species-workshops>

³ <https://www.fisheries.noaa.gov/resources>

⁴ <https://www.youtube.com/watch?v=ydcG1y7oNhg&t=141s>

report was evaluation and review of a pilot crew-training program run by PIRO with collaboration of the Council and HLA.

3.3 Pilot 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 expected to run through May 2025. The pilot training sessions are currently held monthly. This section provides a summary of the pilot program development to date.

The goals of the pilot training program are:

- Maximizing training opportunities for all crewmembers
- Refining the training program with stakeholder and participant input
- Based on outcomes, developing a regular training program
- Evaluating if the goal of training all crew is possible by the 2025 deadline (2 years from when the BiOps were issued)

Although the BiOp T&C requires PIRO SFD to ensure the crew training requirements are met overall, PIRO PRD, Council, and HLA are committed to contributing to the success of the pilot program and development of a regular crew training program.

The Council’s BiOp RPM WG, as well as all partners have identified a goal of the pilot program to provide training to all crew of longline vessels in the Hawaii and ASLL fisheries to ensure the greatest benefit and possible outcome. Having all crew trained during the voluntary pilot program would facilitate transition to a regulatory requirement to fulfill the terms within the BiOp in 2025.

Pilot Training Session Participation to Date

The first crew training event was held on April 19, 2024, led by PIRO SFD protected species workshop coordinator Jason Mehlinger, and monthly training sessions have been held since. Pilot training sessions have been supported and attended by HLA, PIRO PRD and SFD staff, and Council staff.

In total, the monthly training sessions between April and July have resulted in a total of 281 crew members from 70 vessels trained, or almost 50% of the fleet (Table 1). These training days included 2 sessions each with either translation into Tagalog, Indonesian and/or Vietnamese.

Table 1. Summary of Pilot Crew Training Session Participation to Date.

Training date	April 19	May 10	June 21	July 12
Sessions	3 (2 Tagalog, 1 Indonesian)	2 (1 Tagalog, 1 Indonesian)	2 (1 Tagalog/ Vietnamese, 1 Indonesian)	2 (1 Tagalog/ Vietnamese, 1 Indonesian)
Vessels participating	8	19	23	20
Number of participants	26 (15 Tagalog, 11 Indonesian)	81 (47 Tagalog, 34 Indonesian)	96 (30 Tagalog/ 29 Vietnamese, 37 Indonesian)	78 (26 Tagalog/ 17 Vietnamese, 35 Indonesian)

Language Accessibility and Other Logistical Support

HLA has contributed funding to support real-time translation of the pilot training courses to three languages: Vietnamese, Indonesian, and Tagalog. One of the identified goals of the pilot crew training program is to maximize training opportunities for crew to evaluate the potential of training all crew participating in the Hawaii longline fleet prior to 2025. Each training day has had between one and three training sessions, each with different interpreters to accommodate the various languages spoken by crew. A session is one training course given in either a single language (70 - 110 minutes) or by concurrent interpretation in two-languages to ensure the three languages spoken by most crew can be offered monthly. English speaking crew are able to attend any of these sessions since they are conducted in English before being translated. Each session has a goal of 25 crew members in attendance and will be available to as many as 80. The frequency of each language-specific session is based on language needs of registered vessels and reflects the language demographics of the fleet.

One early finding of pilot training is that the full crew of a vessel can be reluctant to attend training at the same time as they prefer at least one to stay back on the vessel for security. To accommodate this concern, PIRO coordinated with NOAA OLE, Hawaii Department of Transportation's Harbor Police, and the Department of Homeland Security (DHS) to provide increased presence and security at the longline piers during the day of the training. Transportation requests to DHS from Pier 17 to 38 for crew training are also set to be approved on these days. The increased security presence and facilitation of transportation improved crew participation by allowing vessels in-port to participate with as many crew members as possible.

Pilot Crew Training Curriculum

The pilot crew training differs from the existing owner/operator PSW training by increasing focus on practical application of the tools and equipment vessels are required to have on board to facilitate safe release of and fishing gear removal from protected species. To achieve this in a relatively short format, the crew training curriculum is focused on a consistent pattern of actions when small and large protected species are captured. It does not include the regulatory details and species identification provided to owners and operators in the PSW.

The training focuses on a simple and consistent 6-step pattern for the handling and release of all protected species. Within that pattern, there is a focus on the different tools and techniques for small and large animals. The 6 steps include:

- 1) Announce the interaction and stop the vessel,
- 2) Send someone to gather the handling equipment,
- 3) Take stock of the situation to ensure safety (such as taking steps to prevent flyback injuries),
- 4) Locate where the animal is hooked,
- 5) Use the appropriate handling tools to remove as much gear as possible unless ingested, and
- 6) Release, stop the vessel to release once gear is removed and the animal is ready.

As for the division of tools, as a general rule, small tools should be used on small animals that can be brought on deck, and large tools should be used on large animals that are too large to board. Some examples of small tools are the dip net, handheld dehookers, pliers, bolt cutters, and

mouth gags. Some examples of large tools are the long handled tools such as gaffs and line cutters and safety tools such as the flyback prevention device. Handouts detailing the handling and release pattern as well as the small and large animal techniques and tools are provided in Appendix B.

The training material also includes links to the handling best practices video, currently only available in English. The narration of the video will be translated to Vietnamese, Tagalog, and Indonesian, and training handouts will eventually include QR-code links to those multi-language versions of the video and associated translated full-detail handling and release guidebooks currently distributed in the PSW and crew training programs. The English version of the video is currently available on the PSW website and the NOAA Fisheries Presentations & Webinars YouTube page (see Section 3.1 for links).

Projected Crew Participation to Meet the 2025 Deadline

To evaluate the goal of training all crew through the pilot training program by the 2025 deadline, statistics on participation (both vessels and crew) is being tracked and projected to estimate future course frequency. This tracking effort has been complimented by an outreach plan including emails sent to all PSW participants regarding upcoming training dates, emails directly to captains and owners of vessels identified as in port (using VMS) on the day before training, and flier distribution directly to crew members on the morning of training.

The current monthly schedule is projected to ensure all crew members have had the chance to participate by February 2025. The success of this will largely be determined by our ability to ensure the opportunities to participate

Additional Benefits of the Pilot Crew Training Program

Training sessions have frequently included more experienced deck bosses and crew members who are able to share their opinions and expertise, as well as demonstrate skills, like dehooking, to help educate some of the younger and newer crew members in attendance. We have also had captains and owners join the training to encourage their crew's participation as well as express their appreciation for the effort being put into training their crew, especially in their natively spoken languages. An important aspect of the success of the training to date has been T-shirts provided to the course participants by HLA. It is clear that the crew members appreciate this incentive to participate in the training.

The training sessions have also provided an opportunity for an exchange of information between trainers and crew, as well as a sense of community amongst the multinational crew members, vessel owners and operators of the longline fishery. These exchanges have grown to include opportunities to learn more about the interactions crew members find most difficult and dangerous as well as opportunities to answer questions regarding species biology, safety, expectations, and responsibilities during interactions.

The pilot training has also provided an associated crew-focused, education and outreach opportunity that may be able to be leveraged for further training, support, and research participation. For example, University of Hawaii Engineering students have utilized the crew

training event to recruit participants in a PIRO PRD-funded study on the efficacy of mitigation methods by setting up a booth to test the force crew are able to place on float and branchlines.

3.4 Considerations for Developing a Regulatory Crew Training Program

The BiOp T&C target of having a minimum of one trained person on deck is expected to be met through the pilot crew training program. However, the BiOp T&C specifies that PIRO SFD “shall require” species handling training for crew members and at a minimum have one trained person on deck who directs and oversees activities of the vessel when retrieving fishing gear. As a result, a regulatory requirement will be needed to ensure consistency with the BiOp beyond 2025.

This section provides an overview of regulatory and non-regulatory considerations for permanent implementation of a crew training program beyond the pilot program period. The Action Team, in coordination with the crew training program partners, will continue to refine these considerations if the Council selects an option implementing a regulatory requirement. A refined set of considerations will be presented to the Council at a future meeting for discussion and action.

3.4.1 Regulatory Considerations

The regulatory requirement to implement crew training is likely to focus on 1) frequency of recertification; 2) mechanisms for certification and compliance; and 3) flexibilities to prevent delays in fishing trips. Preliminary draft considerations based on the experience to date with the pilot crew training program is presented here.

Frequency of recertification

The regulatory requirement for crew training will likely include the frequency of crew retraining after being certified. One consideration for retraining frequency is how often crew need to review the information to achieve the best results to reduce post release mortality of ESA listed species.

Another consideration for recertification frequency is crew turn-over rate. Contract length and renewals vary by crew’s country of origin. Feedback from crew, vessel owners, and interpreters during initial training sessions suggests that crew contracts range between one to three years, with some crew extending their contracts to continue to work in the fishery at the contract's conclusion. These fishers with contract extensions may be required to return to their home-country for a period of time before the new contract period can begin. These crew contracting details should be considered in determining the frequency of retraining and the length of time crew would be considered trained after attending a training session.

The recertification frequency could be adjusted for crew to align with crew contract lengths, or maintained at an annual requirement in an effort to ensure use of best practices and frequent retraining. The training burden is not large at 1.5 hours, and vessels generally have several days or even weeks between trips where there is time for crew to be trained, given available training opportunities. The recertification frequency will likely range between 1 to 3 years.

Declining observer coverage rates and the possible future use of Electronic Monitoring (EM) for catch and injury and mortality estimates may also be a factor when considering the frequency of

recertification. Reduction in coverage and onboard expertise should be accounted for in the considerations for crew, captain, and owner training frequency. Currently, observers are directed to not take over protected species interactions but are encouraged to use their training and expertise to assist the crew with the interaction if asked. Although compliance with handling requirements may improve with the introduction of EM, these systems will not be able to provide real-time hands-on assistance and expertise with the handling and release process.

Mechanisms for certification & compliance

The regulatory requirement may include the mechanism for requiring crew training certification and compliance. For pilot training sessions, crew members receive a training certification card with their name, student ID number, and photograph after completion, similar to the training certificate provided to owners and operators after completing their annual PSW. 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 OLE/Coast Guard enforcement. During the pilot crew training program to date, no training expiration date has been specified for the crew members' cards.

The mechanism for crew training certification and compliance may be based on the current owner/operator PSW regulations(50 CFR 665.814), which include requirements for:

- 1) annual attendance and certification of completion (certificate) of the workshop,
- 2) a valid certificate to maintain or renew vessel registration in the fishery, and
- 3) the certificate or a copy must be maintained aboard the vessel.

The regulatory requirement for crew training may mirror all three of the owner/operator PSW requirement provisions, or may be simplified to only requirements 1 and 3. This approach would likely be the easiest to implement, but may create some situations where compliance could be challenging for fishermen (see Flexibilities, below).

Alternatively, certification and compliance could also consider requirements for vessels to provide information regarding trained crew members aboard at the time of pre-trip notification (50 CFR 665.803(a)) or through the mandatory logbook. However, both of these options would increase the complexity of the action and resulting burden, and could trigger review requirements under the Paperwork Reduction Act that could delay implementation of the crew training requirement.

In the past, observers assigned to fishing vessels recorded the PSW certificates of the vessel operators during the pre-trip inspection, but this information is no longer recorded by observers. For the PSW requirement, the valid PSW certificate or a copy simply needs to be onboard the vessel should it be inspected by NOAA OLE. A similar system could be applied for the crew training requirement, in which the burden of proof would lie with the vessel owner and operator by having at least one valid certificate of crew training or copy on the vessel at all times.

Flexibilities to prevent delays in fishing trips

The Council may consider whether there should be flexibilities built into the regulatory requirement to address situations that could lead to unavailable trained crew, which may in turn delay fishing trips, decreased revenues, or operational inefficiencies. There may be situations

where it is challenging to ensure that at least one trained crew member is available prior to starting a fishing trip. Some vessel owners may have the ability to move trained crew among vessels to ensure at least one crew member is trained, but there still may be situations where trained crew are not available. It would be best if such flexibilities were directly linked to specific situations where trained crew were not available, which may include:

- Trips to pick up new crew who have not had an opportunity to be trained and the vessel fishes on the return trip to cover the cost of the trip
- Training sessions for new crew are unavailable for a few weeks due to unforeseeable circumstance (e.g., government shutdown)

To address these situations, the Council may consider certain exemptions, which could include:

- Allow for another PSW trained vessel owner or operator to join the trip so that the requirement to have one trained person on deck during fishing operations could be met.
- Special arrangements to train one or a few crew members on short notice could be made to shorten the delay in starting the trip.
- Allow crew to be certified for protected species handling by attending a PSW training for owners/operators if crew training sessions are not available on short notice (see Option 3A, below)

The frequency of crew training sessions could influence availability of trained crew; although, the current goal of training all crew will minimize this impact. Council could consider ways to ensure that training availability is not a limiting factor for trained crew availability. Between PSW and crew training sessions, there will generally be weekly training opportunities and PSW training – via current online learning management system for participants who have already taken the in person or webinar version of the PSW – can occur on demand if situations require it.

3.4.2 Non-regulatory Considerations

Language Translation Support

A key contribution from HLA for the pilot program has included a commitment to help facilitate the language translation of the training. The process to develop contracts and other mechanisms to engage translation services takes time, and HLA's work to ensure that translators who have experience with the longline fishing communities have been available for pilot training sessions has been key to their success to date. However, HLA will likely not be able to continue offering these services indefinitely and translation/interpretation needs will likely become the administrative burden of NMFS. In order to accommodate this PIRO SFD has started work on setting up a translation and interpretation contract with the regional office. This option will require a consistent source of funding to ensure availability in perpetuity if a regular training program is required.

Another consideration for a regulatory requirement is that a small percentage of the fleet's crew may speak a language not included in the proposed language offerings for training. In a situation where every member of a vessel's crew does not speak any of the languages currently identified for interpretation, NMFS would want to ensure there is an option available for vessel compliance.

Incentives for Crew Participation in Training Sessions

HLA has been leveraging their relationships with permit holders and crew to advertise and encourage participation in the pilot training program. One method that HLA has used to encourage participation includes providing participants with a custom Protected Species Training t-shirt as a token of participation in the training. HLA is also continuing their development and promotion of educational resources for longline permit holders and crew available on their website (<https://www.hawaiilongline.org/>). Incentives like t-shirts have been instrumental in encouraging crew participation during the pilot program, however ultimately NMFS SFD would be responsible for a regular program and may not be able to provide similar incentives in the future.

Crew Training for the American Samoa Longline Fishery and Hawaii Longline Vessels Operating out of California

As described in Section 3.1, the crew in the American Samoa longline fishery frequently attend the existing PSW training with the vessel owner and operator, as the in-person training option can be hosted on their vessel by SFD 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.

A few vessels in the Hawaii longline fishery also operate out of California. For the pilot program crew would have to be trained in Hawaii. Training in California could be considered in the future.

4 OPTIONS

This section describes the preliminary range of options 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.

These options are in development and are subject to change in response to Council discussions. The Council may consider options including, but not limited to, the following:

1) Option 1: Status Quo/No Action – No regulatory implementation of crew training

Under the No Action option, the Council would not recommend implementing a crew training requirement or any other associated regulatory changes. Under this option, a non-regulatory crew training program may continue, 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.

The pilot crew training program has been very successful in terms of the number of crew attending each training session. PIRO is now transitioning the pilot into an ongoing training program, and that will continue regardless of whether Council recommends a regulatory requirement for training or not. Although the pilot training partners and vessel owners/operators are all contributing to the success to date, we anticipate that participation by all crew in the

fishery would not occur unless it was required, particularly over the long term. Securing funding to support ongoing crew training without a regulatory requirement may also be challenging.

The No Action option would be inconsistent with the BiOp RPM T&C, which specifies that PIRO SFD shall require species handling training for crew members and at a minimum have one trained person on deck who directs and oversees activities of the vessel when retrieving fishing gear. The use of “shall require” relative to both crew training and the one trained person on deck components of the BiOp RPM T&C indicated both are required. The most clear mechanism available to ensure that both requirements are met in these fisheries is via regulation. We can imagine an ongoing crew training program without regulations, but anticipate lower participation by crew over time. The requirement for at least one trained crew member indicates that it be enforceable via regulation, and so this no-action alternative is inconsistent with the BiOp RPM T&C.

Table 2. Comparison of pros and cons of option 1.

Pros	Cons
<ul style="list-style-type: none"> • If training continues regardless of a regulatory requirement, post-release mortality rates for protected species may be reduced in Hawaii and American Samoa longline fisheries • No required training burden for crew (~1.5 hours per session) • No regulatory action required • No additional administrative and enforcement costs 	<ul style="list-style-type: none"> • Fails to meet the T&C requirement, thereby invalidating the incidental take permit for ESA listed species in the fisheries. • Attendance at a voluntary training would be expected to drop off over time, reducing the number of trained crew in the long term. • Minor training burden for crew members

2) Option 2: Implement a crew training requirement consistent with BiOp RPM T&C

Under Option 2, the Council would consider implementing a crew training requirement for the Hawaii and American Samoa longline fisheries, consistent with the BiOp RPM T&C.

Specifically, the requirement would implement species handling training for crew members and require at a minimum have one trained person on deck who directs and oversees activities of the vessel when retrieving fishing gear. Training would include best practices 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 reduce the post-release mortality of ESA-listed species.

As part of this option, the Council will also consider the following implementation details at a future meeting as described in further detail in Section 3.4:

- *Frequency of certification requirement* - the Council may specify how frequent crew should be required to take the training
- *Mechanism for certifying crew and monitoring compliance* - the Council may specify the mechanism for requiring crew training certification and compliance

- *Flexibility to prevent delays in fishing trip* - the Council may consider whether there should be flexibilities built into the regulatory requirement to address situations that could lead to unavailable trained crew, which may in turn delay fishing trips, decrease revenues, or create operational inefficiencies

The Council at the 200th meeting may identify additional situations and potential solutions for the Action Team to analyze further.

Table 3. Comparison of pros and cons of option 2.

Pros	Cons
<ul style="list-style-type: none"> • Post-release mortality rates for protected species may be reduced in Hawaii and American Samoa longline fisheries. • Incidental take permits remain valid. 	<ul style="list-style-type: none"> • Minor training burden to crews. • Increased administrative and enforcement burden and cost for NMFS, although minimized if the PSW model is used. • Could result in a vessel needing to delay a fishing trip to remain in compliance which could reduce revenue

3) Option 3: Expand scope of the action to include related regulatory updates

Under Option 3, the Council would consider expanding the scope of the action under alternative 2 to include review and potential regulatory updates associated with implementing the crew training requirement to improve the overall effectiveness of protected species handling and release training in the longline fisheries as well as reducing the burden to owners, operators, and crew needing to be recertified. Specifically, the Council may consider updating the existing owner/operator protected species workshop requirement to allow some overlap for certification by attending the crew training requirement and vice versa (Option 3A), 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 (Option 3B), and/or revise and update protected species handling requirements more generally (Option 3C). If the Council selects one or more of the suboptions, the Action Team will include them in the range of alternatives to be analyzed further for Council decision making.

Option 3A: Update the owner/operator protected species workshop requirement to allow overlap with crew training requirement

Under Option 3A, the Council would consider updating the existing PSW regulations at 50 CFR 665.814 to modify the annual requirement for consistency with the crew training requirements in this action. Currently, owners and operators are required to annually attend a PSW conducted by NMFS and receive a certification of completion (50 CFR 665.814). The owner/operator PSW sessions are conducted 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 (captains) 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. The course curriculum requirements as well as the frequency at which each course can be taken (workshop/or self guided) could be modified to include the crew training courses as an option to reduce administrative and operational burden. However, the

requirement for annual PSW training is reiterated in the FKWTRP regulations at 50 CFR 229.37(f)(1), and cannot be modified through the Council process. Modifications to the FKWTRP regulations are governed under MMPA procedures.

The owner/operator PSW courses are more detailed than the pilot crew training course. The owner/operator course includes 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 developed for protected species handling and release procedures. The pilot crew training course on the other hand focuses on simplified protected species handling and release procedures and crew safety during interactions.

The Council may consider recommending modifications to the owner/operator PSW requirement, including:

- Changing the frequency of the owner/operator training requirement for consistency with the crew training (e.g., if crew training is required only every two years, make owner/operator requirement also every other year), acknowledging the FKWTRP annual requirement.
- Considering flexibilities in the requirements for certification of owners, operators, and crew through either the PSW which covers regulations, mitigation techniques and handling, or the simplified crew training on handling at different intervals.

There has been significant development of the Crew Training curriculum through the pilot program to date to meet the required needs of the crew. Crew training focuses on practical protected species handling techniques and best practices while the PSW for owners and operators focuses on how to comply with regulatory requirements such as protected species bycatch mitigation techniques including gear requirements and prohibitions. Modifying the crew training curriculum to expand it to fulfill owner or operator requirements, and/or modifying the PSW to make it suitable for crew would require additional work to align the training needs of both groups. While aligning the two may allow for more flexibility in training, it may not result in the maximized benefit to protected species outcomes. For example, it may not be appropriate or beneficial for owners, who are usually not directly involved in protected species handling but are responsible for ensuring vessel compliance with fishing regulations to receive a modified training focused on simplified handling practices.

Other considerations that would need to be taken into account when considering modifications to the PSW frequency or curriculum include the effect it may have on compliance with some protected species mitigation regulation, the adoption of new mitigation requirements, and the resulting protected species catch. Annual review for owners and captains of all requirements such as required and prohibited gear, mitigation practices, species identification, and reporting requirements, not taught within the current crew training curriculum, is thought to increase compliance. Annual training that includes any new regulatory requirements also likely hastens the adoption and correct use of these requirements. It also provides a venue for NMFS to discuss protected species interactions with fishermen, and to get feedback on recent handling situations, mitigation methods, and experiences while fishing.

Table 4. Comparison of pros and cons of option 3A.

Pros	Cons
<ul style="list-style-type: none"> • Post-release mortality rates for protected species may be reduced in Hawaii and American Samoa longline fisheries. • Incidental take permits remain valid. • Reduced training burden on owners and operators. • More flexibility in training options for owners, operators, and crew. 	<ul style="list-style-type: none"> • Could result in reduced compliance with some fisheries regulations and required protected species mitigation techniques (i.e., those requirements beyond handling and release requirements) if owners and operators do not receive this training annually. • Could increase the delay in the adoption of new regulatory requirements if owners and operators do not take the PSW for multiple years after the rule goes into effect. • Potential increase in protected species interactions with reduced regulatory compliance. • If included with the crew training action, added scope associated with 3A may delay implementation of requirements for trained crew on the schedule required by the T&C (specifically increased NEPA/ESA/MMPA requirements) unless addressed through longer term Council actions. • Increased administrative burden to revise PSW and Crew Training curriculums while ensuring they meet all purpose and needs. • Increased facilitation burden to concurrently run two effective, high quality training programs for nearly 1000 individuals (Owners, Captains, Crew).

Option 3B: Revise required list of tools for protected species handling and release

Under Option 3B, the Council would consider reviewing existing regulations pertaining to tools and other material that longline vessels are required to carry to help with protected species handling and release. There have been changes in best handling practices for protected species since the existing regulations were implemented, and reviewing and potentially modifying regulations relative to these current best practices could be beneficial. Initially, two potential review topics have been identified under this option, as examples of potential areas regulations could be revised. Requirements for short-handled dehookers and long-handled line clippers or cutters may benefit from review.

Short-handled Dehookers: Required short-handled dehookers were intended to be used for smaller sea turtles brought on board the vessel that are hooked externally, in the front of the mouth, in the throat or glottis, or that have ingested hooks (50 CFR 665.812(a)(7)). Current best practice is not to attempt to remove ingested hooks due to high risk of further trauma to the hooking site. The currently required sliding plastic bite block on the short handled dehooker is no longer necessary because ingested hook removals should not be attempted. This tool is still very useful, and because some observers and some experienced fishers may

be capable of performing dehooking in the glottis or throat, having the plastic block attached may still be beneficial. However, perhaps requiring the sliding bite block is no longer required.

In addition, the current length requirements of short-handled dehookers may be too restrictive, and slightly longer dehookers for boarded animals are available and may be stronger and more effective than the shorter dehookers. The regulations require the shaft length of short-handled dehookers to be from 16 to 24 inches (40.64 to 60.69 cm) with “T” shaped handle. Ideally, this shaft length requirement could be extended from 16 to 36 inches to allow and encourage longer and stronger dehooker varieties that can be used on deck and over the side of a vessel in the appropriate conditions. The longer dehooker also allows for more torque and pressure during the dehooking action, which increases the likelihood of successful dehooking.

Long-handled Line Clippers: A line-cutting device with an extended reach handle is also required as part of the protected species handling gear. This tool is particularly useful for facilitating removal of line tangled around protected species too large to be brought on board the vessel. In addition, this tool is recommended to cut branchlines as close to the hook as possible when releasing oceanic whitetip sharks. Often, this tool is stored below deck or in the engine room, out of easy reach during protected species interactions. Current crew training emphasizes the use of this tool for proper handling and release of large animals. More emphasis, either through updating current best practices recommendations or via regulation, on keeping this tool on deck at all times would encourage safer line cutting practices for protected species or other bycatch. This would also ensure tools which have the greatest reach are consistently used to cut lines as opposed to tools most often kept on hand such as handheld monofilament cutters and filet knives.

In addition, commercially available long-handled line cutters that fit the regulatory specifications are not currently cheap enough or readily available to ensure ease of replacement and backups kept aboard. Effort and research is needed to identify inexpensive cutting devices that meet regulatory specifications

These two examples suggest that review of current protected species tool requirements could potentially lead to better outcomes for protected species that interact with longline gear in these fisheries. Making changes to recommendations or regulations related to short-handled dehookers and/or long-handled line cutters as noted here could be included as an alternative for Council consideration, or an alternative recommending a more thorough review of the handling tool requirements in conjunction with the crew training requirements of alternative 2 could be considered.

Table 5. Comparison of pros and cons of option 3B.

Pros	Cons
<ul style="list-style-type: none"> • Post-release mortality rates for protected species may be reduced in Hawaii and American Samoa longline fisheries. • Incidental take permits remain valid. • Housekeeping for protected species handling regulations • Encourage proper use of required handling tools 	<ul style="list-style-type: none"> • If included with the crew training action, added scope associated with 3B may delay implementation of requirements for trained crew on the schedule required by the T&C unless addressed through longer term Council actions. <ul style="list-style-type: none"> ○ Potential increases in NEPA/ESA/MMPA review requirements ○ Consultation & agreement with Federal/state/territorial agencies, and handling & veterinary experts on updated requirements.

Option 3C: Review and update protected species handling requirements

Under Option 3C, the Council would, in addition to the crew training regulatory options in alternative 2, consider reviewing and updating the protected species handling and release regulations to ensure they reflect the current handling best practices and to determine if they could be simplified for improved outcome. The existing regulations under the Pelagic FEP include separate handling and release requirements for sea turtles, seabirds, and oceanic whitetip sharks. Additional regulations implementing RFMO conservation measures (50 CFR 300.226; 300.229; 300.230) and the MMPA False Killer Whale Take Reduction Plan (50 CFR 229.37(f)) apply to longline vessels operating under the Pelagic FEP. Additionally, some protected species handling and release procedures exist as non-regulatory guidelines. These layers of regulations and guidelines implemented over time have resulted in a complex set of handling and release procedures that vessel operators and crew are expected to follow. Despite receiving training on these regulations and handling best practices, they remain challenging to reference. Additionally, handling and release procedures that are codified in regulations require rulemaking to change.

As described in further detail in Section 3.3, the pilot crew training program has focused on a consistent pattern of actions when small and large protected species are captured, and a focus on the practical application of the tools and equipment vessels are required to have on board to facilitate safe release and fishing gear removal from protected species.

A comprehensive review of the existing regulatory and non-regulatory handling and release protocols would likely be beneficial. Such a review could identify areas where the regulatory requirements may be streamlined for consistency with the crew training approach, which is intended to increase the chances that crew would successfully release the animal in a manner that maximizes survivorship. Further, a review could consider whether some of the handling and release protocols currently in regulations may be moved to non-regulatory guidance resources to allow relatively easy revisions and updates to the guidance as new information becomes available. In addition, such non-regulatory guidance resources could leverage more accessible formats than regulations, such as video with multiple language translations, to maximize their effectiveness. Such a review would involve coordination with PIRO PRD, International Fisheries

Division (IFD), PIFSC, industry, and other stakeholders as appropriate, and may affect the timing for implementing the crew training requirement if included with this action.

Table 6. Comparison of pros and cons of option 3C.

Pros	Cons
<ul style="list-style-type: none"> • Streamlining handling and release requirements may help increase chances that crew successfully release the animal in a manner that reduces post-release mortality rates in Hawaii and American Samoa longline fisheries. 	<ul style="list-style-type: none"> • If included with the crew training action, added scope associated with 3C would delay implementation of requirements for trained crew on the schedule required by the T&C unless addressed through longer term Council actions. <ul style="list-style-type: none"> ○ Increases in NEPA/ESA/MMPA review requirements ○ Consultation & agreement with Federal/state/territorial agencies, and handling & veterinary experts on updated requirements.

5 REFERENCES

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>

APPENDIX A: PROTECTED SPECIES WORKSHOP OUTLINE WITH REGULATORY REFERENCES

PSW Slideshow Outline W/ Regulation References				
Current Classroom PSW Presentation Outline			Regulatory Section	
Protected Species Intro			50 CFR 665.813 (d)	
Sea Turtles	Sea Turtle Handling and Release Guidelines	Trip Declaration	50 CFR 300.215 (b)	
		Shallow Setting - Hook and Bait	50 CFR 229.37 (c)(1)(i) & 50 CFR 229.37 (c) (1)(ii)	
		Shallow set - Trip limits / Hard caps	50 CFR 665.813(b)(1)	
		Loggerhead Temperature range	N/A	
		Deep Set Requirements	50 CFR 665.800	
		American samoa Rules	50 CFR 665.800 / 50 CFR 665.801 (c)(1) and (2)	
		Sea Turtle H & R - Tools	50 CFR 300.222 (y), [cross referenced 50 CFR 300.223(f)]	
		Sea Turtle Interaction - Small	50 CFR 665.812	
	Sea Turtle ID	Sea Turtle Interaction - Small - Video	50 CFR 665.812	
		Sea Turtle Interaction - Large	50 CFR 665.812	
		Sea Turtle Interaction - Large - Video	50 CFR 665.812	
		Sea Turtle Identification	50 CFR 665.812	
	Albatross and Other Seabirds	Seabird Regulations	Gear Requirements - Mitigation Requirements	50 CFR 665.815
			Vessel Set-up: Side/Stern	50 CFR 665.815
Bird curtain			50 CFR 665.815	
Tori line			50 CFR 665.815	
Strategic Discard			50 CFR 665.815	
Set after sunset			50 CFR 665.815	
Gear Requirements - Mitigation Requirements			50 CFR 665.815 / 50 CFR 665.802	
Reporting Requirements			50 CFR 665.815 (b)	
Handling Requirements for ESA listed and other seabirds			50 CRF 665.815 (b) and (c)	
Seabird Handling and Release Guidelines		Seabird Tools	50 CFR 665.802	
		Seabird Handling Guidelines	50 CFR 665.815	
		Seabird Handling Video	50 CFR 665.803	
		Albatross ID	Albatross Facts	50 CFR 665.815
	Laysan/Black-Footed/Short-Tailed Albatross ID		50 CFR 665.815	
Marine Mammals	Marine Mammal	Marine Mammal Protection Act	50 CFR 229.37 (f) (1-4)	

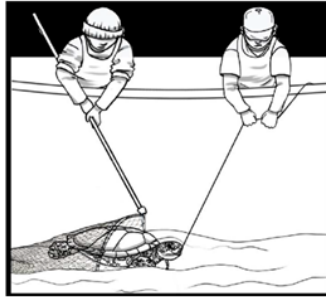
	Regulations and Reporting	Marine Mammal Reporting	50 CFR 229.37 (f) (1-4)
		Reporting Analysis - Serious Vs. Non-Serious	50 CFR 229.37 (f) (1-4)
		Gear Requirements for Marine Mammal Mitigation	50 CFR 229.37 (c)(1)(i)-(ii)
	Souther Exclusion Zone (SEZ)	False Killer Whales - Southern Exclusion Zone (SEZ) + Maps	50 CFR 229.37
	Handling and Release Guidelines	Notify Captain/ Assess Safety	50 CFR 229.37 (f) (1-4)
		Fly Back Prevention Device (How to build)	Non-regulatory guidance
		Straighten hook	50 CFR 229.37 (f) (1-4)
		Release/Report	50 CFR 229.37 (f) (1-4)
		Marine Mammal Handling Video	50 CFR 229.37 (f) (1-4)
	Marine Mammal ID	False Killer Whales	50 CFR 229.37 (f) (1-4)
		Short-Finned Pilot Whale	50 CFR 229.37 (f) (1-4)
		Differences and other Blackfish	50 CFR 229.37 (f) (1-4)
		Rizzos Dolphin	50 CFR 229.37 (f) (1-4)
		Rough-toothed Dolphin	50 CFR 229.37 (f) (1-4)
	Sharks and Rays	Shark Handling and Release Requirements	Species Introduction - Protected status
Steel leaders and Release requirements			50 CFR 665.802
Shark ID		Oceanic White Tip Shark	50 CFR 300.226 (a-d) / 50 CFR 665.811
		Silky Shark	50 CFR 300.226 (a-d)
		Scalloped Hammerhead Shark	ESA
Shark Handling and Release Guidelines		Shark Handling Guidelines	50 CFR 300.222
		Shark Handling Video	50 CFR 300.222
Manta Ray ID		Manta Ray Identification	RESOLUTION C-15-04
Manta Ray Handling and Release Guidelines		Manta Ray Handling Guidelines	RESOLUTION C-15-04
		Manta Ray Handling Video	RESOLUTION C-15-04
Conclusion - Announcements, Contacts, and Resources			N/A

APPENDIX B: PILOT CREW TRAINING HANDOUTS

SMALL ANIMALS = SMALL TOOLS

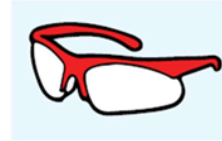
SMALL ANIMALS

- TURTLES
- BIRDS



SMALL TOOLS

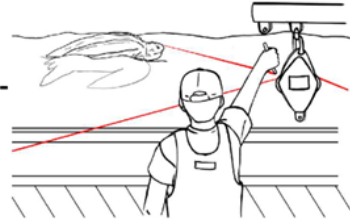
- Dip Net
- Bolt Cutters
- Dehooker
- Long Nose Pliers
- Snips
- Turtle mouth gags
- Gloves
- Towel
- Safety glasses
- Tire (Turtle hospital)
- Box (Bird hospital)



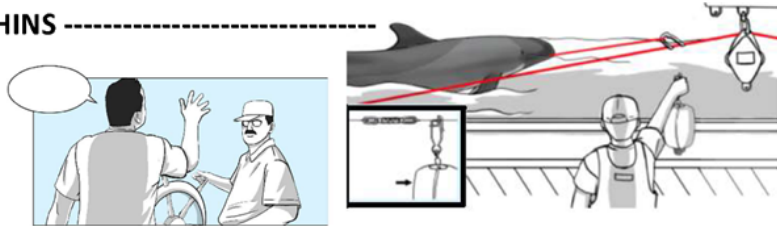
BIG ANIMALS = BIG TOOLS

BIG ANIMALS

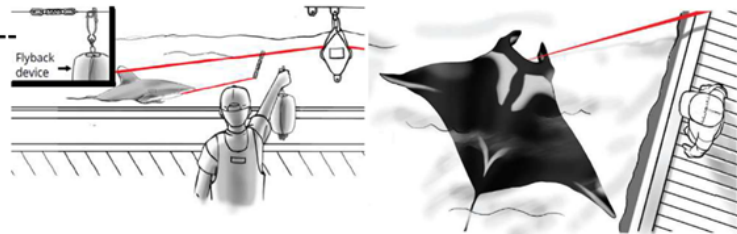
- LARGE TURTLES -----



- WHALES/DOLPHINS -----



- SHARKS/MANTA ---



BIG TOOLS

- Long handled Gaff (1)
- Long handled dehooker (2)
- Long handled Line cutter (3)
- Safety tools
 - Flyback prevention – Buoy/Water Jugs
 - Fight line
 - FLD

