



LETTER OF AUTHORIZATION

The National Marine Fisheries Service's Alaska Fisheries Science Center (AFSC) is hereby authorized under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(A)) to take marine mammals incidental to fishery and ecosystem research activities within four specified geographical regions, subject to the provisions of the MMPA and the Regulations Governing Taking of Marine Mammals Incidental to Alaska Fisheries Science Center Fisheries Research (50 CFR Part 219, Subpart F) (Regulations).

1. This Letter of Authorization (LOA) is valid from October 7, 2019, through October 7, 2024.
2. This LOA is valid only for take incidental to the specified fisheries research activities in the Gulf of Alaska, Bering Sea and Aleutian Islands, Chukchi Sea and Beaufort Sea, or off the U.S. West Coast, described in the preamble to the Regulations.
3. General Conditions
 - (a) A copy of this LOA must be in the possession of AFSC, its designees, and personnel operating under the authority of this LOA, including the International Pacific Halibut Commission (IPHC).
 - (b) AFSC shall convey relevant mitigation, monitoring, and reporting requirements to the IPHC, as indicated in relevant sections below.
 - (c) The taking is limited to the species and numbers listed in Table 1 (attached).
 - (d) Taking of these species that exceeds the numbers and/or intensity indicated in Table 1 or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA.
 - (e) AFSC must take all necessary measures to coordinate and communicate in advance of each specific survey with the National Oceanic and Atmospheric Administration's (NOAA) Office of Marine and Aviation Operations (OMAO) or other relevant parties on non-NOAA platforms to ensure that all mitigation measures and monitoring requirements described herein, as well as the specific manner of implementation and relevant event-contingent decision-making processes, are clearly understood and agreed upon. AFSC shall convey this requirement to IPHC.
 - (f) AFSC must coordinate and conduct briefings at the outset of each survey and as necessary between ship's crew (Commanding Officer/master or designee(s), as



appropriate) and scientific party in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures. AFSC shall convey this requirement to IPHC.

- (g) AFSC must coordinate as necessary on a daily basis during survey cruises with OMAO personnel or other relevant personnel on non-NOAA platforms to ensure that requirements, procedures, and decision-making processes are understood and properly implemented. AFSC shall convey this requirement to IPHC.
- (h) AFSC shall adhere to a final Communication Plan. In summary and in accordance with the Plan, AFSC shall:
 - i. notify and provide potentially affected Alaska Native subsistence communities with the Communication Plan through a series of mailings, direct contacts, and planned meetings throughout the regions where AFSC fisheries research is expected to occur;
 - ii. meet with potentially affected subsistence communities to discuss planned activities and to resolve potential conflicts regarding any aspects of either the fisheries research operations or the Communication Plan;
 - iii. develop field operations plans as necessary, which shall address how researchers will consult and maintain communication with contacts in the potentially affected subsistence communities when in the field, including a list of local contacts and contact mechanisms, and which shall describe operational procedures and actions planned to avoid or minimize the risk of interactions between AFSC fisheries research and local subsistence activities;
 - iv. schedule post-season informational sessions with subsistence contacts from the study areas to brief them on the outcome of the AFSC fisheries research and to assess performance of the Communication Plan and individual field operations or cruise plans in working to minimize effects to subsistence activities; and
 - v. evaluate overall effectiveness of the Communications Plan in year four of this LOA.

4. Mitigation Measures

The holder of this Authorization is required to implement the following mitigation measures:

- (a) When deploying any type of sampling gear at sea, AFSC must at all times monitor for any unusual circumstances that may arise at a sampling site and use

best professional judgment to avoid any potential risks to marine mammals during use of all research equipment. AFSC shall convey this requirement to IPHC.

- (b) AFSC must implement handling and/or disentanglement protocols as specified in guidance that shall be provided to AFSC survey personnel. AFSC shall convey this requirement to IPHC.
- (c) AFSC shall not approach within 1 km of locations where marine mammals are aggregated, including pinniped rookeries and haul-outs.
- (d) Trawl survey protocols:
 - (i) AFSC must conduct trawl operations as soon as is practicable upon arrival at the sampling station.
 - (ii) AFSC shall initiate marine mammal watches (visual observation) at least 15 minutes prior to beginning of net deployment, but shall also conduct monitoring during any pre-set activities including trackline reconnaissance, CTD casts, and plankton or bongo net hauls. Marine mammal watches shall be conducted by scanning the surrounding waters with the naked eye and rangefinding binoculars (or monocular). During nighttime operations, visual observation shall be conducted using the naked eye and available vessel lighting.
 - (iii) AFSC shall implement the move-on rule mitigation protocol, as described in this paragraph. If one or more marine mammals are observed and are considered at risk of interacting with the vessel or research gear, or appear to be approaching the vessel and are considered at risk of interaction, AFSC shall either remain onsite or move on to another sampling location. If remaining onsite, the set shall be delayed. If the animals depart or appear to no longer be at risk of interacting with the vessel or gear, a further observation period shall be conducted. If no further observations are made or the animals still do not appear to be at risk of interaction, then the set may be made. If the vessel is moved to a different section of the sampling area, the move-on rule mitigation protocol would begin anew. If, after moving on, marine mammals remain at risk of interaction, the AFSC shall move again or skip the station. Marine mammals that are sighted shall be monitored to determine their position and movement in relation to the vessel to determine whether the move-on rule mitigation protocol should be implemented. AFSC may use best professional judgment in making these decisions.
 - (iv) AFSC shall maintain visual monitoring effort during the entire period of time that trawl gear is in the water (*i.e.*, throughout gear deployment, fishing, and retrieval). If marine mammals are sighted before the gear is

fully removed from the water, AFSC shall take the most appropriate action to avoid marine mammal interaction. AFSC may use best professional judgment in making this decision.

- (v) If trawling operations have been suspended because of the presence of marine mammals, AFSC may resume trawl operations when practicable only when the animals are believed to have departed the area. AFSC may use best professional judgment in making this determination.
 - (vi) AFSC shall implement standard survey protocols to minimize potential for marine mammal interactions, including maximum tow durations at target depth and maximum tow distance, and shall carefully empty the trawl as quickly as possible upon retrieval.
 - (vii) Whenever surface trawl nets are used in southeast Alaska, AFSC must install and use acoustic deterrent devices, with two pairs of the devices installed near the net opening. AFSC must ensure that the devices are operating properly before deploying the net.
- (e) Longline survey protocols:
- (i) AFSC must deploy hook and line gear as soon as is practicable upon arrival at the sampling station. AFSC shall convey this requirement to IPHC.
 - (ii) AFSC shall initiate marine mammal watches (visual observation) no less than 30 minutes (or for the duration of transit between set locations, if shorter than 30 minutes) prior to both deployment and retrieval of longline gear. Marine mammal watches shall be conducted by scanning the surrounding waters with the naked eye and rangefinding binoculars (or monocular). During nighttime operations, visual observation shall be conducted using the naked eye and available vessel lighting. AFSC shall convey this requirement to IPHC.
 - (iii) AFSC shall implement the move-on rule mitigation protocol, as described in this paragraph. If one or more marine mammals are observed in the vicinity of the planned location before gear deployment, and are considered at risk of interacting with the vessel or research gear, or appear to be approaching the vessel and are considered at risk of interaction, AFSC shall either remain onsite or move on to another sampling location. If remaining onsite, the set shall be delayed. If the animals depart or appear to no longer be at risk of interacting with the vessel or gear, a further observation period shall be conducted. If no further observations are made or the animals still do not appear to be at risk of interaction, then the set may be made. If the vessel is moved to a different section of the

sampling area, the move-on rule mitigation protocol would begin anew. If, after moving on, marine mammals remain at risk of interaction, the AFSC shall move again or skip the station. Marine mammals that are sighted shall be monitored to determine their position and movement in relation to the vessel to determine whether the move-on rule mitigation protocol should be implemented. AFSC may use best professional judgment in making these decisions. AFSC shall convey this requirement to IPHC.

- (iv) AFSC shall maintain visual monitoring effort during the entire period of gear deployment and retrieval. If marine mammals are sighted before the gear is fully deployed or retrieved, AFSC shall take the most appropriate action to avoid marine mammal interaction. AFSC may use best professional judgment in making this decision. AFSC shall convey this requirement to IPHC.
 - (v) If deployment or retrieval operations have been suspended because of the presence of marine mammals, AFSC may resume such operations when practicable only when the animals are believed to have departed the area. AFSC may use best professional judgment in making this decision. AFSC shall convey this requirement to IPHC.
- (f) Gillnet survey protocols:
- (i) AFSC must conduct gillnet operations as soon as is practicable upon arrival at the sampling station.
 - (ii) AFSC shall conduct marine mammal watches (visual observation) prior to beginning of net deployment. Marine mammal watches shall be conducted by scanning the surrounding waters with the naked eye and rangefinding binoculars (or monocular).
 - (iii) AFSC shall implement the move-on rule mitigation protocol. If one or more marine mammals are observed in the vicinity of the planned location before gear deployment, and are considered at risk of interacting with research gear, AFSC shall either remain onsite or move on to another sampling location. If remaining onsite, the set shall be delayed. If the animals depart or appear to no longer be at risk of interacting with the gear, a further observation period shall be conducted. If no further observations are made or the animals still do not appear to be at risk of interaction, then the set may be made. If the vessel is moved to a different area, the move-on rule mitigation protocol would begin anew. If, after moving on, marine mammals remain at risk of interaction, the AFSC shall move again or skip the station. Marine mammals that are sighted shall be monitored to determine their position and movement in relation to the vessel to determine whether the move-on rule mitigation protocol should

be implemented. AFSC may use best professional judgment in making these decisions.

- (iv) AFSC shall maintain visual monitoring effort during the entire period of time that gillnet gear is in the water (*i.e.*, throughout gear deployment, fishing, and retrieval). If marine mammals are sighted before the gear is fully removed from the water, and appear to be at risk of interaction with the gear, AFSC shall pull the gear immediately. AFSC may use best professional judgment in making this decision.
- (v) If gillnet operations have been suspended because of the presence of marine mammals, AFSC may resume gillnet operations when practicable only when the animals are believed to have departed the area. AFSC may use best professional judgment in making this determination.
- (vi) AFSC must install and use acoustic deterrent devices whenever gillnets are used. AFSC must ensure that the devices are operating properly before deploying the net.

5. Monitoring

The holder of this Authorization is required to implement the following monitoring requirements:

- (a) AFSC must designate a compliance coordinator who shall be responsible for ensuring compliance with all requirements of this LOA and for preparing for any subsequent request(s) for incidental take authorization. AFSC shall convey this requirement to IPHC.
- (b) Visual monitoring:
 - (i) Marine mammal visual monitoring shall occur prior to deployment of trawl, longline, and gillnet gear, respectively; throughout deployment of gear and active fishing of research gears (not including longline soak time); prior to retrieval of longline gear; and throughout retrieval of all research gear. AFSC shall convey this requirement to IPHC.
 - (ii) Marine mammal watches shall be conducted by watch-standers (those navigating the vessel and/or other crew) at all times when the vessel is being operated. AFSC shall convey this requirement to IPHC.
- (c) Training:
 - (i) AFSC must conduct annual training for all chief scientists and other personnel who may be responsible for conducting dedicated marine

mammal visual observations to explain mitigation measures and monitoring and reporting requirements, mitigation and monitoring protocols, marine mammal identification, completion of datasheets, and use of equipment. AFSC may determine the agenda for these trainings.

- (ii) AFSC must also dedicate a portion of training to discussion of best professional judgment, including use in any incidents of marine mammal interaction and instructive examples where use of best professional judgment was determined to be successful or unsuccessful.
 - (iii) AFSC shall convey these training requirements to IPHC.
- (d) Handling procedures and data collection:
- (i) AFSC must develop and implement standardized marine mammal handling, disentanglement, and data collection procedures. These standard procedures will be subject to approval by NMFS' Office of Protected Resources (OPR). AFSC shall convey these procedures to IPHC.
 - (ii) When practicable, for any marine mammal interaction involving the release of a live animal, AFSC must collect necessary data to facilitate a serious injury determination. AFSC shall convey this requirement to IPHC.
 - (iii) AFSC must provide its relevant personnel with standard guidance and training regarding handling of marine mammals, including how to identify different species, bring an individual aboard a vessel, assess the level of consciousness, remove fishing gear, return an individual to water, and log activities pertaining to the interaction. AFSC shall convey this requirement to IPHC.
 - (iv) AFSC must record such data on standardized forms, which will be subject to approval by OPR. AFSC must also answer a standard series of supplemental questions regarding the details of any marine mammal interaction. AFSC shall convey this requirement to IPHC.

6. Reporting

The holder of this Authorization is required to report as follows:

- (a) AFSC must report all incidents of marine mammal interaction to NMFS' Protected Species Incidental Take database within 48 hours of occurrence, and must provide supplemental information to OPR upon request. Information related to marine mammal interaction (animal captured or entangled in research gear) must include details of survey effort, full descriptions of any observations of the

animals, the context (vessel and conditions), decisions made, and rationale for decisions made in vessel and gear handling.

(b) Annual reporting:

(i) AFSC must submit an annual summary report to OPR not later than ninety days following the end of a given year. AFSC must provide a final report within thirty days following resolution of comments on the draft report.

(ii) These reports must contain, at minimum, the following:

1. Annual line-kilometers surveyed during which the EK60, ME70, ES60, 7111 (or equivalent sources) were predominant and associated pro-rated estimates of actual take;
2. Summary information regarding use of all longline, gillnet, and trawl gear, including number of sets, tows, etc., specific to each gear;
3. Accounts of all incidents of significant marine mammal interactions, including circumstances of the event and descriptions of any mitigation procedures implemented or not implemented and why;
4. A written evaluation of the effectiveness of AFSC mitigation strategies in reducing the number of marine mammal interactions with survey gear, including best professional judgment and suggestions for changes to the mitigation strategies, if any;
5. Final outcome of serious injury determinations for all incidents of marine mammal interactions where the animal(s) were released alive;
6. A summary of all relevant training provided by AFSC and any coordination with NMFS' Alaska Regional Office.

(iii) AFSC shall convey these reporting requirements to IPHC and shall provide IPHC reports to OPR subject to the same schedule.

(c) Reporting injured or dead marine mammals:

(i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a prohibited manner, AFSC personnel engaged in the research activity shall immediately cease such activity until such time as an appropriate decision regarding activity continuation can be made by

the AFSC Director (or designee). The incident must be reported immediately to OPR and the Alaska Regional Stranding Coordinator, NMFS. OPR will review the circumstances of the prohibited take and work with AFSC to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The immediate decision made by AFSC regarding continuation of the specified activity is subject to OPR concurrence. The report must include the following information

1. Time, date, and location (latitude/longitude) of the incident;
 2. Description of the incident;
 3. Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, visibility);
 4. Description of all marine mammal observations in the 24 hours preceding the incident;
 5. Species identification or description of the animal(s) involved;
 6. Status of all sound source use in the 24 hours preceding the incident;
 7. Water depth;
 8. Fate of the animal(s); and
 9. Photographs or video footage of the animal(s).
- (ii) In the event that AFSC discovers an injured or dead marine mammal and determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), AFSC must immediately report the incident to OPR and the Alaska Regional Stranding Coordinator, NMFS. The report must include the information identified in 6(c)(i) of this LOA. Activities may continue while OPR reviews the circumstances of the incident. OPR will work with AFSC to determine whether additional mitigation measures or modifications to the activities are appropriate.
- (iii) In the event that AFSC discovers an injured or dead marine mammal and determines that the injury or death is not associated with or related to the specified activity (e.g., previously wounded animal, carcass with moderate to advanced decomposition, scavenger damage), AFSC must report the incident to OPR and the Alaska Regional Stranding Coordinator, NMFS,

within 24 hours of the discovery. AFSC must provide photographs or video footage or other documentation of the stranded animal sighting to OPR.

(iv) AFSC shall convey these requirements to IPHC.

7. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein or contained in the Regulations, or if OPR determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

OCT 07 2019





Donna S. Wieting
Director,
Office of Protected Resources,
National Marine Fisheries Service.

Date

Table 1. Authorized take numbers, by species

Species	Authorized Take				
	M/SI + Level A ¹			Level B ²	
	Trawl	Longline	Gillnet		
North Pacific right whale (<i>Eubalaena japonica</i>)	-	-	-	2	
Bowhead whale (<i>Balaena mysticetus</i>)	-	-	-	42	
Gray whale (<i>Eschrichtius robustus</i>)	-	-	-	5,579	
Humpback whale (<i>Megaptera novaeangliae</i>)	CNP	-	-	161	
	WNP	-	-	6	
Minke whale (<i>Balaenoptera acutorostrata</i>)	-	-	-	8	
Sei whale (<i>Balaenoptera borealis</i>)	-	-	-	2	
Fin whale (<i>Balaenoptera physalus</i>)	-	-	-	40	
Blue whale (<i>Balaenoptera musculus</i>)	-	-	-	1	
Sperm whale (<i>Physeter macrocephalus</i>)	-	2	-	22	
Cuvier's beaked whale (<i>Ziphius cavirostris</i>)	-	-	-	2	
Baird's beaked whale (<i>Berardius bairdii</i>)	-	-	-	8	
Stejneger's beaked whale (<i>Mesoplodon stejnegeri</i>)	-	-	-	15	
Beluga whale (<i>Delphinapterus leucas</i>)	Beaufort Sea	1	-	3	
	Eastern Chukchi Sea	1	-	3	
	Eastern Bering Sea	-	-	939	
	Cook Inlet	-	-	3	
Bottlenose dolphin (<i>Tursiops truncatus</i>)	Offshore	-	1	-	
Common dolphin (<i>Delphinis delphis delphis</i>)		-	1	-	
Pacific white-sided dolphin (<i>Lagenorhynchus obliquidens</i>)		5	-	1	54
Risso's dolphin (<i>Grampus griseus</i>)		-	1	-	-
Killer whale (<i>Orcinus orca</i>)	Offshore	-	-	-	67
	West Coast Transient	-	-	-	13
	AT1 Transient	-	-	-	2
	GOA/BSAI Transient	-	-	-	14
	Northern Resident	-	-	-	6
	Alaska Resident	-	2	-	24
Short-finned pilot whale (<i>Globicephala macrorhynchus</i>)		-	1	-	-
Harbor porpoise (<i>Phocoena phocoena</i>)	SE Alaska	1 ³	-	1 ³	358
	Gulf of Alaska	1	-	1	650
	Bering Sea	1	-	-	1,746
Dall's porpoise (<i>Phocoenoides dalli</i>)	CA/OR/WA	-	3 ⁴	-	-
	Alaska	10		1	5,343
Northern fur seal (<i>Callorhinus ursinus</i>)	Eastern Pacific	10	8 ⁵	1	1,576
	California	1		1	143
California sea lion (<i>Zalophus californianus</i>)		-	1	-	-

Steller sea lion (<i>Eumetopias jubatus</i>)	Eastern	5	8 ⁵	1	914
	Western	10		1	3,526
Bearded seal (<i>Erignathus barbatus</i>)		2	-	-	1,727
Harbor seal (<i>Phoca vitulina</i>)	California	-	5 ⁶	-	-
	OR/WA Coast	-		-	-
	Washington Inland Waters	-		-	-
	Clarence Strait	1		-	242
	Dixon/Cape Decision	1		-	153
	Sitka/Chatham Strait	1		1	965
	Lynn Canal/ Stephens Passage	1		-	109
	Glacier Bay/Icy Strait	1		-	69
	Cook Inlet/ Shelikof Strait	1		-	2,622
	Prince William Sound	1		1	3,194
	South Kodiak	1		-	3,809
	North Kodiak	1		-	906
	Bristol Bay	1		-	187
	Pribilof Islands	1		-	29
Aleutian Islands	1	-	301		
Spotted seal (<i>Phoca largha</i>)		2	1	-	2,106
Ringed seal (<i>Pusa hispida</i>)		2	2	-	2,066
Ribbon seal (<i>Histiophoca fasciata</i>)		2	-	-	1,404
Northern elephant seal (<i>Mirounga angustirostris</i>)		1	-	-	52
Unidentified cetacean (Family Delphinidae or Family Phocoenidae) ⁷		2	-	1	-
Unidentified pinniped		3	3	-	-

¹ These takes may be by mortality or any lesser intensity, including serious injury and Level A harassment, and are apportioned by gear type. The number represents the total authorization over five years.

² These takes may be by Level B harassment only. The number represents the annual take authorization for five years.

³ For harbor porpoise in southeast Alaska, one total take by M/SI is authorized over the 5-year period for trawl and gillnet gears combined.

⁴ A maximum of one take by M/SI is authorized over the 5-year period for the CA/OR/WA stock of Dall's porpoise.

⁵ Total authorized taking by M/SI for northern fur seal over the 5-year period (21) includes stock-specific limits of a maximum authorized take of 18 individuals from the eastern Pacific stock or of 8 individuals from the California stock. Total authorized taking by M/SI for Steller sea lion over the 5-year period (25) includes stock-specific limits of a maximum authorized take of 12 individuals from the eastern stock or of 18 individuals from the western stock.

⁶ A total of five takes incidental to use of longline gear are authorized for harbor seal over the 5-year period. No more than one take incidental to use of longline gear would be expected to occur over the 5-year period for any given stock. Therefore, total authorized taking by M/SI for all harbor seal stocks combined is 19; this total includes stock-specific limits of a maximum of one take over five years for three U.S. west coast stocks; a maximum of three takes over five years for the Prince William Sound and Sitka/Chatham Strait stocks; and a maximum of two takes over five years from each of the remaining Alaska stocks.

⁷ Does not include southeast Alaska harbor porpoise.