



## INCIDENTAL HARASSMENT AUTHORIZATION

Fairweather, LLC (Fairweather), 301 Calista Court, Anchorage, Alaska 99518, is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(D)), to harass marine mammals incidental to conducting anchor retrieval operations in the U.S. Chukchi and Beaufort seas, when adhering to the following terms and conditions.

1. This Incidental Harassment Authorization (IHA) is valid from July 1 through October 31, 2016.
2. This IHA is valid only for anchor retrieval operations and vessel activities related to anchor retrieval operation, such as ice management, in the U.S. Chukchi and Beaufort seas.
3. General Conditions
  - (a) A copy of this IHA must be in the possession of the Fairweather, its designees, and work crew personnel operating under the authority of this IHA.
  - (b) The species authorized for taking are:
    - (i) Bowhead whale (*Balaena mysticetus*)
    - (ii) Beluga whale (*Delphinapterus leucas*)
    - (iii) Gray whale (*Eschrichtius robustus*)
    - (iv) Fin whale (*Balaenoptera physalus*)
    - (v) Minke whale (*B. acutorostrata*)
    - (vi) Humpback whale (*Megaptera novaeangliae*)
    - (vii) Killer whale (*Orca Orcinus*)
    - (viii) Harbor porpoise (*Phocoena phocoena*)
    - (ix) Bearded seal (*Erigathus barbatus*)
    - (x) Ringed seal (*Phoca hispida*)
    - (xi) Spotted seal (*P. largha*)



- (c) The taking, by Level B harassment only, is limited to the species listed in condition 3(b). See Table 1 (attached) for numbers of take authorized.
- (d) The taking by injury (Level A harassment), serious injury, or death of any of the species listed in condition 3(b) of the Authorization or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA.
- (e) The holder of this Authorization must notify the Chief of the Permits and Conservation Division, Office of Protected Resources, at least 48 hours prior to the start of anchor retrieval activities (unless constrained by the date of issuance of this Authorization in which case notification shall be made as soon as possible).

#### 4. Mitigation Measures

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

- (a) Establishing Safety and Exclusion Zones
  - (i) Establish a 500-m safety zone for anchor retrieving and ice management (although Level A takes are not expected when a marine mammal occur in this zone).
  - (ii) Establish a 500-m exclusion zone for sonar operations.
- (b) Clearing Marine Mammals for Safety Zone before Anchor Retrieval or Ice Management Activities:
  - (i) When the vessel is positioned on-site, the protected species observers (PSOs) shall 'clear' the area by observing the 500-m safety zone for 30 minutes; if no marine mammals are observed within those 30 minutes, anchor retrieval and/or ice management will commence.
  - (ii) If a marine mammal(s) is observed within the 500-m safety zone during the clearing, the PSO shall continue to watch until the animal(s) is gone and has not returned for 15 minutes if the sighting was a pinniped, or 30 minutes if it was a cetacean.
  - (iii) Once the PSO has cleared the area, anchor retrieval and/or ice management operations may commence.
  - (iv) Should a marine mammal(s) be observed within the 500-m safety zone during the retrieval operations, the PSO shall monitor and carefully record any reactions observed. PSOs shall also collect behavioral information on marine mammals beyond the safety zone.
- (c) Safety Zones Related to Sonar Operations
  - (i) Prior to starting the sonar activity, the PSO shall 'clear' the area by observing the 500-m exclusion zone for 30 minutes; if no marine mammals are observed within those 30 minutes, sonar activity will commence.

- (ii) If a marine mammal(s) is observed within the 500-m exclusion zone during the clearing, the PSO shall continue to watch until the animal(s) is gone and has not returned for 15 minutes if the sighting was a pinniped, or 30 minutes if it was a cetacean.
  - (iii) Once the PSO has cleared the area, sonar activity may commence.
  - (iv) If an animal enters the 500-m exclusion zone, sonar will be shut down immediately. Sonar activity shall not resume until the marine mammal has cleared the exclusion zone. PSOs shall also collect behavioral information on marine mammals beyond the exclusion zone.
- (d) Vessel Movement Mitigation:
- (i) If a marine mammal is detected outside the 500-m safety zone for anchor handling or the 500-m exclusion zone for sonar activities and, based on its position and the relative motion, is likely to enter those zones, the vessel's speed and/or direct course may, when practical and safe, be changed.
  - (ii) The marine mammal activities and movements relative to the vessels shall within either zone. If the mammal appears likely to enter the respective zone, further mitigative actions will be taken, i.e., either further course alterations or shut down in the case of the sonar.
  - (iii) Vessel shall reduce its speed to 5 kt (9.26 km/h) or lower when within 900 ft (274 m) of cetaceans or pinnipeds.
  - (iv) Fairweather shall avoid transits within designated North Pacific right whale critical habitat. If transit within North Pacific right whale critical habitat cannot be avoided, vessel operators are requested to exercise extreme caution and observe the of 10 kt (18.52 km/h) vessel speed restriction while within North Pacific right whale critical habitat.
  - (v) Within the North Pacific right whale critical habitat, all vessels shall keep 2,625 ft (800 m) away from any observed North Pacific right whales and avoid approaching whales head-on consistent with vessel safety.
- (e) Mitigation Measures for Subsistence Activities:
- (i) For the purposes of reducing or eliminating conflicts between subsistence whaling activities and Fairweather's anchor retrieval program, Fairweather shall develop and implement a communication plan with subsistence communities.
  - (ii) Fairweather will prepare a daily report of project activities, sea conditions, and subsistence interactions, and send to all interested community leaders.
  - (iii) The daily reports will include a contact address and phone number where interested community leaders can convey any subsistence concerns.
  - (iv) Fairweather shall monitor the positions of all of its vessels and exercise due care in avoiding any areas where subsistence activity is active.
  - (v) Vessel transiting:

- (A) The vessels will enter the Bering Strait and continue to the Chukchi Sea on or after 1 July, minimizing effects on marine mammals that frequent open leads and minimizing effects on spring and early summer bowhead whale hunting.
- The transit route for the vessels will avoid known protected ecosystems such as the Ledyard Bay Critical Habitat Unit (LBCHU), and will include coordination through Com Centers.
  - PSOs will be aboard vessels.
  - When within 805 m of whales, vessels will reduce speed, avoid separating members from a group and avoid multiple changes of direction.
  - Vessel speed will be reduced during inclement weather conditions in order to avoid collisions with marine mammals.
  - Personnel will communicate and coordinate with the Com Centers regarding all vessel transit.
  - Vessels transiting in the Beaufort Sea east of Bullen Point to the Canadian border shall remain at least 5 miles offshore during transit along the coast, provided ice and sea conditions allow. During transit in the Chukchi Sea, vessels shall remain as far offshore as weather and ice conditions allow, and at all times at least 5 miles offshore.
- (B) From August 31 to October 31, transiting vessels in the Chukchi Sea or Beaufort Sea shall remain at least 20 miles offshore of the coast of Alaska from Icy Cape in the Chukchi Sea to Pitt Point on the east side of Smith Bay in the Beaufort Sea, unless ice conditions or an emergency that threatens the safety of the vessel or crew prevents compliance with this requirement. This condition shall not apply to vessels actively engaged in transit to or from a coastal community to conduct crew changes or logistical support operations.
- (C) Vessels shall be operated at speeds necessary to ensure no physical contact with whales occurs, and to make any other potential conflicts with bowheads or whalers unlikely. Vessel speeds shall be less than 10 knots in the proximity of feeding whales or whale aggregations (6 or more whales).
- (D) If any vessel inadvertently approaches within 1.6 kilometers (1 mile) of observed bowhead whales, except when providing emergency assistance to whalers or in other emergency situations, the vessel operator will take reasonable precautions to avoid potential interaction with the bowhead whales by taking one or more of the following actions, as appropriate:
- Reducing vessel speed to less than 5 knots within 900 feet of the whale(s);

- Steering around the whale(s) if possible;
  - Operating the vessel(s) in such a way as to avoid separating members of a group of whales from other members of the group;
  - Operating the vessel(s) to avoid causing a whale to make multiple changes in direction; and
  - Checking the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the propellers are engaged.
- (vii) Fairweather shall complete operations in time to allow such vessels to complete transit through the Bering Strait to a point south of 59 degrees North latitude no later than November 15, 2016. Any vessel that encounters weather or ice that will prevent compliance with this date shall coordinate its transit through the Bering Strait to a point south of 59 degrees North latitude with the appropriate Com-Centers. Fairweather vessels shall, weather and ice permitting, transit east of St. Lawrence Island and no closer than 10 miles from the shore of St. Lawrence Island.

## 5. Monitoring

- (a) Vessel-based Visual Monitoring:
- (i) Vessel-based visual monitoring for marine mammals shall be conducted by NMFS-approved protected species observers (PSOs) throughout the period of survey activities.
  - (ii) PSOs shall be stationed aboard the operating vessels through the duration of the anchor retrieval operation.
  - (iii) A sufficient number of PSOs shall be onboard the survey vessel to meet the following criteria:
    - (A) 100% monitoring coverage during all periods of survey operations in daylight;
    - (B) maximum of 4 consecutive hours on watch per PSO; and
    - (C) maximum of 12 hours of watch time per day per PSO.
  - (iv) The vessel-based marine mammal monitoring shall provide the basis for real-time mitigation measures as described in (6)(b) above.
  - (v) Results of the vessel-based marine mammal monitoring shall be used to calculate the estimation of the number of “takes” from the marine surveys and equipment recovery and maintenance program.
- (b) Protected Species Observers and Training
- (i) PSO teams shall consist of Inupiat observers and NMFS-approved field biologists.

- (ii) Experienced field crew leaders shall supervise the PSO teams in the field. New PSOs shall be paired with experienced observers to avoid situations where lack of experience impairs the quality of observations.
  - (iii) Crew leaders and most other biologists serving as observers in 2016 shall be individuals with experience as observers during recent marine mammal monitoring projects in Alaska, the Canadian Beaufort Sea, or other offshore areas in recent years.
  - (iv) Resumes for PSO candidates shall be provided to NMFS for review and acceptance of their qualifications. Inupiat observers shall be experienced in the region and familiar with the marine mammals of the area.
  - (v) All observers shall complete an observer training course designed to familiarize individuals with monitoring and data collection procedures. The training course shall be completed before the anticipated start of the 2016 open-water season. The training session(s) shall be conducted by qualified marine mammalogists with extensive crew-leader experience during previous vessel-based monitoring programs.
  - (vi) Training for both Alaska native PSOs and biologist PSOs shall be conducted at the same time in the same room. There shall not be separate training courses for the different PSOs.
  - (vii) Crew members should not be used as primary PSOs because they have other duties and generally do not have the same level of expertise, experience, or training as PSOs, but they could be stationed on the fantail of the vessel to observe the near field, especially the area around the airgun array, and implement a power-down or shutdown if a marine mammal enters the safety zone (or exclusion zone).
  - (viii) If crew members are to be used as PSOs, they shall go through some basic training consistent with the functions they will be asked to perform. The best approach would be for crew members and PSOs to go through the same training together.
  - (ix) PSOs shall be trained using visual aids (e.g., videos, photos), to help them identify the species that they are likely to encounter in the conditions under which the animals will likely be seen.
  - (x) Fairweather shall train its PSOs to follow a scanning schedule that consistently distributes scanning effort according to the purpose and need for observations. All PSOs should follow the same schedule to ensure consistency in their scanning efforts.
  - (xi) PSOs shall be trained in documenting the behaviors of marine mammals. PSOs should record the primary behavioral state (i.e., traveling, socializing, feeding, resting, approaching or moving away from vessels) and relative location of the observed marine mammals.
- (c) Marine Mammal Observation Protocol

- (i) PSOs shall watch for marine mammals from the best available vantage point on the survey vessels, typically the bridge.
- (ii) PSOs shall scan systematically with the unaided eye and 7 x 50 reticle binoculars, and night-vision equipment when needed.
- (iii) Personnel on the bridge shall assist the marine mammal observer(s) in watching for marine mammals.
- (iv) Monitoring shall consist of recording of the following information:
  - (A) The species, group size, age/size/sex categories (if determinable), the general behavioral activity, heading (if consistent), bearing and distance from vessel, sighting cue, behavioral pace, and apparent reaction of all marine mammals seen near the vessel (e.g., none, avoidance, approach, paralleling, etc.);
  - (B) The time, location, heading, speed, and activity of the vessel, along with sea state, visibility, cloud cover and sun glare at (I) any time a marine mammal is sighted, (II) at the start and end of each watch, and (III) during a watch (whenever there is a change in one or more variable);
  - (C) The identification of all vessels that are visible within 5 km of the vessel from which observation is conducted whenever a marine mammal is sighted and the time observed;
  - (D) Any identifiable marine mammal behavioral response (sighting data should be collected in a manner that will not detract from the PSO's ability to detect marine mammals);
  - (E) Any adjustments made to operating procedures; and
  - (F) Visibility during observation periods so that total estimates of take can be corrected accordingly.
- (vii) Distances to nearby marine mammals will be estimated with binoculars (7 x 50 binoculars) containing a reticle to measure the vertical angle of the line of sight to the animal relative to the horizon. Observers may use a laser rangefinder to test and improve their abilities for visually estimating distances to objects in the water.
- (viii) PSOs shall understand the importance of classifying marine mammals as "unknown" or "unidentified" if they cannot identify the animals to species with confidence. In those cases, they shall note any information that might aid in the identification of the marine mammal sighted. For example, for an unidentified mysticete whale, the observers should record whether the animal had a dorsal fin.
- (ix) Additional details about unidentified marine mammal sightings, such as "blow only," mysticete with (or without) a dorsal fin, "seal splash," etc., shall be recorded.

- (x) Fairweather shall use the best available technology to improve detection capability during periods of fog and other types of inclement weather. Such technology might include night-vision goggles or binoculars as well as other instruments that incorporate infrared technology.
- (d) Field Data-Recording and Verification
  - (i) PSOs shall utilize a standardized format to record all marine mammal observations.
  - (ii) Information collected during marine mammal observations shall include the following:
    - (A) Vessel speed, position, and activity
    - (B) Date, time, and location of each marine mammal sighting
    - (C) Number of marine mammals observed, and group size, sex, and age categories
    - (D) Observer's name and contact information
    - (E) Weather, visibility, and ice conditions at the time of observation
    - (F) Estimated distance of marine mammals at closest approach
    - (G) Activity at the time of observation, including possible attractants present
    - (H) Animal behavior
    - (I) Description of the encounter
    - (J) Duration of encounter
    - (K) Mitigation action taken
  - (iii) Data shall be recorded directly into handheld computers or as a back-up, transferred from hard-copy data sheets into an electronic database.
  - (iv) A system for quality control and verification of data shall be facilitated by the pre-season training, supervision by the lead PSOs, and in-season data checks, and shall be built into the software.
  - (v) Computerized data validity checks shall also be conducted, and the data shall be managed in such a way that it is easily summarized during and after the field program and transferred into statistical, graphical, or other programs for further processing.
- (e) Marine Mammal Behavioral Response Study
  - (i) PSOs will collect behavioral response data to the presence of vessels during transit on walruses and seals or during its anchor retrieving operations.
  - (ii) PSOs will record the initial and subsequent behaviors of marine mammals using a focal following approach. Marine mammals will be observed until

they disappear from the PSO's view. Observers will also record any behaviors that marine mammals may have in response to the vessel.

## 6. Reporting

- (a) The results of Fairweather's anchor retrieval program monitoring reports will be presented in weekly and monthly reports and a 90-day final report. The initial final reports are due to NMFS within 90 days after the expiration of the IHA. The reports will include
  - (i) Summaries of monitoring effort (e.g., total hours, total distances, and marine mammal distribution through the project period, accounting for sea state and other factors affecting visibility and detectability of marine mammals);
  - (ii) Summaries that represent an initial level of interpretation of the efficacy, measurements, and observations, rather than raw data, fully processed analyses, or a summary of operations and important observations;
  - (iii) Information on distances marine mammals are sighted from operations and the associated noise isopleth for active sound sources (i.e., anchor retrieval, ice management, side scan sonar);
  - (vi) Analyses of the effects of various factors influencing detectability of marine mammals (e.g., sea state, number of observers, and fog/glare);
  - (v) Species composition, occurrence, and distribution of marine mammal sightings, including date, water depth, numbers, age/size/gender categories (if determinable), group sizes, and ice cover;
  - (vi) Estimates of uncertainty in all take estimates, with uncertainty expressed by the presentation of confidence limits, a minimum-maximum, posterior probability distribution, or another applicable method, with the exact approach to be selected based on the sampling method and data available; and
  - (vii) A clear comparison of authorized takes and the level of actual estimated takes.
- (b) The draft report shall be subject to review and comment by NMFS. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS. The draft report will be considered the final report for this activity under this Authorization if NMFS has not provided comments and recommendations within 90 days of receipt of the draft report.
- (c) In the unanticipated event that the construction activities clearly cause the take of a marine mammal in a manner prohibited by this Authorization (if issued), such as an injury, serious injury, or mortality, Fairweather shall immediately cease all operations and immediately report the incident to the Chief, Permits and

Conservation Division, Office of Protected Resources, NMFS, and the Alaska Regional Stranding Coordinators. The report must include the following information:

- (i) Time, date, and location (latitude/longitude) of the incident;
- (ii) Description of the incident;
- (iii) Status of all sound source use in the 24 hours preceding the incident;
- (iv) Environmental conditions (e.g., wind speed and direction, sea state, cloud cover, visibility, and water depth);
- (v) Description of marine mammal observations in the 24 hours preceding the incident;
- (vi) Species identification or description of the animal(s) involved;
- (vii) The fate of the animal(s); and
- (viii) Photographs or video footage of the animal (if equipment is available).

Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with Fairweather to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Fairweather may not resume their activities until notified by NMFS via letter, email, or telephone.

- (d) In the event that Fairweather discovers an injured or dead marine mammal, and the lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (i.e., in less than a moderate state of decomposition as described in the next paragraph), Fairweather will immediately report the incident to the Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, and the Alaska Regional Stranding Coordinators. The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with Fairweather to determine whether modifications in the activities are appropriate.
- (e) In the event that Fairweather discovers an injured or dead marine mammal, and the lead PSO determines that the injury or death is not associated with or related to the activities authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), Fairweather shall report the incident to the Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, and the Alaska Regional Stranding Coordinators, within 24 hours of the discovery. Fairweather shall provide photographs or video footage (if available) or other documentation of the stranded animal sighting to NMFS and the Marine Mammal Stranding Network. Fairweather can continue its operations under such a case.

7. Activities related to the monitoring described in this Authorization do not require a separate scientific research permit issued under section 104 of the Marine Mammal Protection Act.
8. The Plan of Cooperation outlining the steps that will be taken to cooperate and communicate with the native communities to ensure the availability of marine mammals for subsistence uses, must be implemented.
9. This Authorization may be modified, suspended, or withdrawn if the holder fails to abide by the conditions prescribed herein or if the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals, or if there is an unmitigable adverse impact on the availability of such species or stocks for subsistence uses.
10. A copy of this Authorization and the Incidental Take Statement must be in the possession of each vessel operator taking marine mammals under the authority of this Incidental Harassment Authorization.
11. Fairweather is required to comply with the Terms and Conditions of the Incidental Take Statement corresponding to NMFS' Biological Opinion.



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

JUL 01 2016

Date

**Table 1. Authorized Level B take numbers, by species**

| <b>Species</b>                  | <b>Authorized Level B Takes</b> |
|---------------------------------|---------------------------------|
| Bowhead whale                   | 658                             |
| Gray whale                      | 197                             |
| Beluga whale (E. Chukchi stock) | 54                              |
| Beluga whale (Beaufort stock)   | 569                             |
| Fin whale                       | 4                               |
| Humpback whale                  | 5                               |
| Minke whale                     | 7                               |
| Harbor porpoise                 | 50                              |
| Killer whale                    | 4                               |
| Ringed seal                     | 6,895                           |
| Bearded seal                    | 231                             |
| Spotted seal                    | 138                             |