



MARINE MAMMAL COMMISSION

20 June 2016

Ms. Jolie Harrison, Chief
Permits and Conservation Division
National Marine Fisheries Service
Office of Protected Resources (F/PR1)
1315 East-West Highway
Silver Spring, Maryland 20910

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Fairweather, LLC (Fairweather) seeking an incidental harassment authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act. Fairweather is seeking authorization to take small numbers of marine mammals by harassment incidental to anchor-retrieval activities in the Beaufort and Chukchi Seas, Alaska, during the 2016 open-water season.¹ The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 19 May 2016 notice (81 Fed. Reg. 31595) announcing receipt of the application and proposing to issue the authorization subject to certain conditions.

Background

Fairweather is proposing to retrieve anchors that were left as part of Shell's Arctic oil and gas exploration program. Anchors would be retrieved at five separate locations in the Beaufort and Chukchi Seas: (1) Good Hope Bay in Kotzebue Sound, (2) Burger A site in the Chukchi Sea, (3) Burger V site in the Chukchi Sea, (4) Kakapo in the Chukchi Sea, and (5) Sivulliq site in the Beaufort Sea. Fairweather would use high-frequency sonar² as necessary to locate the anchors and dynamic positioning thrusters when unseating the anchors. Anchor-retrieval activities are expected to occur for up to 10 days at each site, including up to 7 days of thruster use and 3 days of high-frequency sonar use. Ice-management activities are expected to be limited to two days around Point Barrow. All five anchor and mooring systems would be retrieved in 2016, depending on ice and weather conditions and subsistence harvest activities.

NMFS preliminarily has determined that the proposed activities could modify temporarily the behavior of small numbers of up to eight species of marine mammals, but that the total taking would have a negligible impact on the affected species or stocks. NMFS does not anticipate any take of marine mammals by death or serious injury. It believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of Fairweather's proposed mitigation measures. The mitigation, monitoring, and reporting measures include—

¹ July through September.

² A dual-frequency sonar system, a single-beam echosounder, or multi-beam echosounders would be used.

- (1) using vessel-based observers to monitor a 500-m safety zone during all anchor-retrieval, ice-management, and high-frequency sonar activities, for a minimum of 30 minutes prior to commencement of those activities;
- (2) using standard delay and shut-down procedures³;
- (3) changing vessel direction and/or speed to avoid interacting with marine mammals within the 500-m safety zone and reducing vessel speeds to 5 knots or less within 274 m of any marine mammals;
- (4) avoiding transits within designated North Pacific right whale critical habitat, maintaining vessel speeds of 10 knots or less within that area, and maintaining a distance of 800 m or more from any observed right whales;
- (5) reporting injured and dead marine mammals to the Chief of the Permits and Conservation Division at the NMFS Office of Protected Resources and the Alaska Regional Stranding Coordinators using NMFS's phased approach and suspending activities, if appropriate; and
- (6) submitting field and technical reports and a final comprehensive report to NMFS.

Availability of marine mammals for subsistence

Fairweather has developed a plan of cooperation in consultation with North Slope communities outlining the measures it would implement to minimize any adverse effects on the availability of marine mammals for subsistence. It includes requirements to maintain the minimum approach distances and operational requirements outlined in the previous section, as well as (1) refraining from bringing its vessels into the Chukchi Sea before July 1, (2) entering the Beaufort Sea as soon as Point Barrow is ice-free to complete the proposed activities before commencement of bowhead hunting on 25 August, (3) avoiding nearshore ecosystems as much as practicable, (4) coordinating its transit route through North Slope communications and call centers (Com Centers), (5) employing both trained field biologists and Alaska Natives as protected species observers, (6) reducing vessel speeds during inclement weather conditions, and (7) communicating and coordinating with the Com Centers regarding all vessel transits. Fairweather also has signed a conflict avoidance agreement with the Alaska whaling communities outlining measures that it would implement to minimize impacts on bowhead whale hunts. Based on the survey design, the timing and location of the proposed activities, and the proposed mitigation measures, NMFS has preliminarily determined that the proposed taking would not have an unmitigable adverse impact on the availability of marine mammals for subsistence use by Alaska Natives.

Estimation of takes

NMFS stated that it would take up to seven days per site to remove all anchors. However, it reduced the number of days used to estimate the numbers of marine mammals to be taken at each site to 3.5 days based on vessels not operating at full power during the entire 7 days. That method of estimating takes is not consistent with NMFS's method of ascribing takes for stationary sound sources. For those sources, the timeframe in which sources are active is irrelevant given that the ensonified area is based on a point source and πr^2 . The same ensonified area would be realized no matter whether the source operated for 30 minutes or 23 hours. Therefore, the total number of days

³ Including a clearance time of 15 minutes for pinnipeds and small cetaceans and 30 minutes for medium-sized and large cetaceans.

Ms. Jolie Harrison
20 June 2016
Page 3

associated with anchor-retrieval activities should have been 35 days (7 days at each of five sites), not 17.5 days as indicated in the *Federal Register* notice. Therefore, the Commission recommends that NMFS revise its total take estimates to reflect 7 days of anchor-retrieval activities at each of the five sites.

In addition, the method used to estimate the numbers of takes, which sums fractions of takes for each species across days, does not account for NMFS's 24-hour reset policy. While NMFS appears to believe this approach is more accurate in a pure mathematical sense, it ultimately negates the intent of a 24-hour reset. Instead of summing fractions of takes across days and then rounding to estimate total takes, NMFS should have calculated a daily take estimate (determined by multiplying the estimated density of marine mammals in the area by the daily ensonified area) and then rounding that to a whole number *before* multiplying it by the number of days that activities would occur. For species in which estimated daily takes would round down to zero, NMFS should use the average group size as a proxy for the estimated number of takes, as has been done for other incidental harassment authorizations (80 Fed. Reg. 75380, 81 Fed. Reg. 23144). If NMFS believes any of those species could be taken on multiple days, NMFS should multiply the average group size by the number of days of activities. The Commission has commented on NMFS's inconsistent use of its 24-hour reset and standard rounding rules numerous times in the past, yet these issues persist in NMFS's proposed authorizations. Therefore, the Commission recommends that NMFS (1) follow its policy of a 24-hour reset for enumerating the number of each species that could be taken, (2) apply standard rounding rules before summing the numbers of estimated takes across days, and (3) for species that have the potential to be taken but model-estimated or calculated takes round to zero, use group size to inform the take estimates—these methods should be used consistently for all future incidental take authorizations.

Peer review panel recommendations

NMFS convened an independent peer review panel in March 2016 to discuss Fairweather's marine mammal mitigation and monitoring plan, pursuant to regulations at 50 C.F.R. § 216.108(d). The Commission understands that the panel's recommendations were made available to NMFS prior to the publication of the proposed incidental harassment authorization, but were not included in the *Federal Register* notice. If NMFS issues the incidental harassment authorization for the proposed anchor-retrieval and other associated activities, the Commission recommends that NMFS incorporate the peer review panel's recommendations into the authorization.

Please let me know if you have any questions with regard to this letter.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director

cc: Jon Kurland, NMFS Alaska Regional Office