



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XE545]

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of issuance of letter of authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA), as amended, its implementing regulations, and NMFS' MMPA Regulations for Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico, notification is hereby given that NMFS has issued a Letter of Authorization (LOA) to LLOG Exploration Offshore, L.L.C. (LLOG) for the take of marine mammals incidental to geophysical survey activity in the Gulf of Mexico (GOM).

DATES: The LOA is effective from December 31, 2024 through April 19, 2026.

ADDRESSES: The LOA, LOA request, and supporting documentation are available online at: <https://www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-gulf-mexico>. In case of problems accessing these documents, please call the contact listed below (see **FOR FURTHER INFORMATION CONTACT** section).

FOR FURTHER INFORMATION CONTACT: Jenna Harlacher, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

On January 19, 2021, we issued a final rule with regulations to govern the unintentional taking of marine mammals incidental to geophysical survey activities conducted by oil and gas industry operators, and those persons authorized to conduct activities on their behalf (collectively “industry operators”), in U.S. waters of the GOM over the course of 5 years (86 FR 5322, January 19, 2021). The rule was based on our

findings that the total taking from the specified activities over the 5-year period will have a negligible impact on the affected species or stock(s) of marine mammals and will not have an unmitigable adverse impact on the availability of those species or stocks for subsistence uses, and became effective on April 19, 2021.

The regulations at 50 CFR 217.180 *et seq.* allow for the issuance of LOAs to industry operators for the incidental take of marine mammals during geophysical survey activities and prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat (often referred to as mitigation), as well as requirements pertaining to the monitoring and reporting of such taking. Under § 217.186 (e), issuance of an LOA shall be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under these regulations and a determination that the amount of take authorized under the LOA is of no more than small numbers.

NMFS subsequently discovered that the 2021 rule was based on erroneous take estimates. We conducted another rulemaking using correct take estimates and other newly available and pertinent information relevant to the analyses supporting some of the findings in the 2021 final rule and the taking allowable under the regulations. We issued a final rule in April 2024, effective May 24, 2024 (89 FR 31488, April 24, 2024).

The 2024 final rule made no changes to the specified activities or the specified geographical region in which those activities would be conducted, nor to the original 5-year period of effectiveness. In consideration of the new information, the 2024 rule presented new analyses supporting affirmance of the negligible impact determinations for all species, and affirmed that the existing regulations, which contain mitigation, monitoring, and reporting requirements, are consistent with the “least practicable adverse impact” standard of the MMPA.

Summary of Request and Analysis

LLOG's new survey plans include conducting survey effort at multiple platform locations in the GOM. Survey effort could be conducted as Zero Offset, Offset, or Walkaway vertical seismic profile (VSP), Salt Proximity Survey, and/or Checkshot survey. Water depths at the locations where LLOG plans to conduct survey effort range from approximately 366 to 2,300 meters (m). LLOG plans to use either a 12-element, 2,400 cubic inch (in³) airgun array, or a 6-element, 1,500 in³ airgun array.

LLOG currently has 7 active LOAs associated with similar survey activities as described above: 3 in zone 7, effective January 1, 2023 through December 31, 2024 (87 FR 78652, December 22, 2022), effective May 12, 2023 through December 31, 2024 (88 FR 31715, May 18, 2023), and effective March 1, 2022 through April 19, 2026 (89 FR 751, January 5, 2024); 2 in zone 5, effective September 21, 2023 through December 31, 2025 (88 FR 66409, September 27, 2023) and effective March 1, 2022 through April 19, 2026 (89 FR 14056, February 26, 2024); and 2 in zone 6, effective July 1, 2023 through July 5, 2025 (88 FR 41909, June 28, 2023) and effective September 16, 2024 through April 19, 2026 (89 FR 77475, September 23, 2024).

The purpose of the newly issued LOA is to combine all LLOG survey activities, including remaining survey activity associated with the seven existing LOAs as well as newly planned survey activity, under a single LOA. This newly issued LOA would reduce workload for both LLOG and NMFS and streamline reporting. The new activity includes additional areas not covered under any active LLOG survey LOAs. As such, the seven active LOAs will expire to coincide with this new LOA that covers all of LLOGs survey activity. All currently active LOAs issued to LLOG were superseded by this new LOA, and all survey activity covered under previously active LOAs is now covered under this LOA.

Consistent with the preamble to the final rule, the new survey effort proposed by LLOG in its LOA request was used to develop LOA-specific take estimates based on the

acoustic exposure modeling results described in the preamble (89 FR 31488, April 24, 2024). In order to generate the appropriate take number for authorization, the following information was considered: (1) survey type; (2) location (by modeling zone¹); (3) number of days; (4) source; and (5) month.² In this case, the 4,130 in³ airgun array was selected. This proxy selection represents the least impactful modeled airgun array, but remains conservative for purposes of evaluating LLOG's planned survey effort (*i.e.*, maximum 12-element, 2,400 in³ array). The acoustic exposure modeling performed in support of the rule provides 24-hour exposure estimates for each species, specific to each modeled source and survey type in each zone and month.

No VSP surveys were included in the modeled survey types, and use of existing proxies (*i.e.*, two-dimensional (2D), three-dimensional (3D) (narrow-azimuth) NAZ, 3D (wide-azimuth) WAZ, Coil) is generally conservative for use in evaluation of VSP survey effort, largely due to the greater area covered by the modeled proxies. Summary descriptions of these modeled survey geometries are available in the preamble to the 2018 proposed rule (83 FR 29212, 29220, June 22, 2018). Coil was selected as the best available proxy survey type in this case because the spatial coverage of the new survey activity is most similar to the coil survey pattern.

For the new survey activity, the seismic source array will be deployed in one of the following forms: Zero Offset VSP—deployed from a drilling rig at or near the borehole, with the seismic receivers (*i.e.*, geophones) deployed in the borehole on wireline at specified depth intervals; Offset VSP—in a fixed position deployed from a supply vessel on an offset position; Walkaway VSP—attached to a line, or a series of lines, towed by a supply vessel; 3D VSP—source moves along a spiral or line swaths

¹ For purposes of acoustic exposure modeling, the GOM was divided into seven zones. Zone 1 is not included in the geographic scope of the rule.

² Acoustic propagation modeling was performed for two seasons: winter (December-March) and summer (April-November). Marine mammal density data is generally available on a monthly basis, and therefore further refines take estimates temporally.

towed by a supply vessel; Salt-Proximity—consists typically of a combination of both Zero Offset VSP plus a fixed Offset VSP; or Checkshot—similar to Zero Offset VSP, typically hung from a platform and a sensor placed at a few depths in the well, where only the first energy arrival is recorded. The coil survey pattern in the model was assumed to cover approximately 144 kilometers squared (km²) per day (compared with approximately 795 km², 199 km², and 845 km² per day for the 2D, 3D NAZ, and 3D WAZ survey patterns, respectively). Among the different parameters of the modeled survey patterns (*e.g.*, area covered, line spacing, number of sources, shot interval, total simulated pulses), NMFS considers area covered per day to be most influential on daily modeled exposures exceeding Level B harassment criteria. Because LLOG's planned survey is expected to cover no additional area as a stationary source, the coil proxy is most representative of the effort planned by LLOG in terms of predicted Level B harassment.

The survey will take place over approximately 61 days total, including 19 days in zone 5, 19 days in zone 6, and 23 days in zone 7. The monthly distribution of survey days is not known in advance. Take estimates for each species are based on the month that produces the greatest value.

For the Rice's whale, take estimates based on the modeling yielded results that are not realistically likely to occur when considered in light of other relevant information concerning Rice's whale habitat preferences considered during the rulemaking process. NMFS' 2024 final rule provided detailed discussion regarding Rice's whale habitat (see, *e.g.*, 89 FR 31508, 31519). In summary, recent survey data, sightings, and acoustic data support Rice's whale occurrence in waters throughout the GOM between approximately 100 m and 400 m depth along the continental shelf break, and associated habitat-based density modeling has identified similar habitat (*i.e.*, approximately 100 to 400 m water

depths along the continental shelf break) as being Rice's whale habitat (Garrison *et al.*, 2023; Soldevilla *et al.*, 2022, 2024).

Although Rice's whales may occur outside of the general depth range expected to provide suitable habitat, we expect that any such occurrence would be rare. LLOG's planned activities will occur in water depths of approximately 366 to 2,300 m in the central GOM. Although there is some minimal habitat depth overlap, the majority of LLOG's survey would occur in deeper water, and the modeling results indicate only 1 take of Rice's whale (even without considering whether there is overlap with Rice's whale habitat). Thus, NMFS does not expect there to be the reasonable potential for take of Rice's whale in association with this survey and, accordingly, does not authorize take of Rice's whale through the LOA.

Based on the results of our analysis here and in the other previously issued LOAs, NMFS has determined that the level of taking expected for the newly combined survey activities and authorized through the LOA is consistent with the findings made for the total taking allowable under the regulations. See table 1 in this notice and table 6 of the rule (89 FR 31488, April 24, 2024).

Small Numbers Determination

Under the GOM rule, NMFS may not authorize incidental take of marine mammals in an LOA if it will exceed "small numbers." In short, when an acceptable estimate of the individual marine mammals taken is available, if the estimated number of individual animals taken is up to, but not greater than, one-third of the best available abundance estimate, NMFS will determine that the numbers of marine mammals taken of a species or stock are small (89 FR 31535, May 24, 2024). For more information please see NMFS' discussion of small numbers in the 2021 final rule (86 FR 5438, January 19, 2021).

The take numbers for authorization are determined as described above in the Summary of Request and Analysis section. In addition, we are adding the previously analyzed take from LLOG’s 7 active LOAs. Subsequently, the total incidents of harassment for each species are multiplied by scalar ratios to produce a derived product that better reflects the number of individuals likely to be taken within a survey (as compared to the total number of instances of take), accounting for the likelihood that some individual marine mammals may be taken on more than 1 day (86 FR 5404, January 19, 2021; 89 FR 31535, May 24, 2024). The output of this scaling, where appropriate, is incorporated into adjusted total take estimates that are the basis for NMFS' small numbers determinations, as depicted in table 1.

This product is used by NMFS in making the necessary small numbers determinations through comparison with the best available abundance estimates (see discussion at 86 FR 5391, January 19, 2021). For this comparison, NMFS' approach is to use the maximum theoretical population, determined through review of current stock assessment reports (SAR; <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>) and model-predicted abundance information (<https://seamap.env.duke.edu/models/Duke/GOM/>). Information supporting the small numbers determinations is provided in table 1.

Table 1 -- Take Analysis¹

Species	Authorized take	Scaled Take	Abundance ²	Percent abundance
Rice’s whale	0	n/a	51	n/a
Sperm whale	443	187	3,007	6.2
<i>Kogia</i> spp.	207 ³	62.3	980	7.7
Beaked whales	743	75	803	9.3
Rough-toothed dolphin	1,134	325	4,853	6.7
Bottlenose dolphin	1,156	332	165,125	0.2
Clymene dolphin	1,674	480	4,619	10.4
Atlantic spotted dolphin	1,111	319	21,506	1.5
Pantropical spotted dolphin	11,871	3407	67,225	5.1
Spinner dolphin	156	45	5,548	0.8
Striped dolphin	3,185	914	5,634	16.2
Fraser’s dolphin	457	131	1,665	7.9

Risso's dolphin	315	93	1,974	4.7
Blackfish ⁴	3,233	954	6,113	15.6
Short-finned pilot whale	803	237	2,741	8.6

¹ Scalar ratios were applied to "Authorized Take" values as described at 86 FR 5322, 5404 (January 19, 2021) to derive scaled take numbers shown here.

² Best abundance estimate. For most taxa, the best abundance estimate for purposes of comparison with take estimates is considered here to be the model-predicted abundance (Garrison *et al.*, 2023). For Rice's whale, Atlantic spotted dolphin, and Risso's dolphin, the larger estimated SAR abundance estimate is used.

³ Includes 13 take by Level A harassment and 194 takes by Level B harassment. Small numbers determination made on basis of scaled Level B harassment take plus authorized Level A harassment take.

⁴ The "blackfish" guild includes melon-headed whales, false killer whales, pygmy killer whales, and killer whales.

Based on the analysis contained herein of LLOG's proposed survey activity described in its LOA application, the previous analysis from the 7 active LOAs, and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the affected species or stock sizes (*i.e.*, less than one-third of the best available abundance estimate) and therefore the taking is of no more than small numbers.

Authorization

NMFS has determined that the level of taking for this LOA request is consistent with the findings made for the total taking allowable under the incidental take regulations and that the amount of take authorized under the LOA is of no more than small numbers. Accordingly, we have issued an LOA to LLOG authorizing the take of marine mammals incidental to its geophysical survey activity, as described above.

Dated: December 31, 2024.

Catherine Marzin,

Acting Director, Office of Protected Resources,

National Marine Fisheries Service.

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