



## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[RTID 0648-XD270]

#### **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 a Letter of Authorization (LOA) has been issued to ExxonMobil Corporation (ExxonMobil) for the take of marine mammals incidental to geophysical survey activity in the Gulf of Mexico.

**DATES:** The LOA is effective from August 18, 2023, through April 1, 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**).

**FOR FURTHER INFORMATION CONTACT:** Ben Laws, 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 Gulf of Mexico (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. The rule became effective on April 19, 2021.

Our 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 50 CFR 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.

### **Summary of Request and Analysis**

ExxonMobil plans to conduct well appraisal and high-resolution engineering geophysical surveys associated with its federal lease blocks within the High Island and Galveston areas. See Figure 1 of the LOA application for a map of the area.

ExxonMobil anticipates using a daily contingent of from one to three source vessels, depending on the survey stage and ongoing survey requirements. Surveys may be conducted 24 hours per day, but in some instances in shallow water areas will only be conducted for 12 hours per day. Depending on the survey objective, source vessels will tow a Sercel G-Source II dual airgun array of 80 to 150 cubic inches (in<sup>3</sup>), or may be outfitted with sources such as a multibeam echosounder, side scan sonar, and sparker system (*e.g.*, Geo-Source 200-400). During survey effort using non-airgun sources, only the sparker source has the potential to cause incidental take of marine mammals. Please see ExxonMobil's application for additional detail.

Consistent with the preamble to the final rule, the survey effort proposed by ExxonMobil in its LOA request was used to develop LOA-specific take estimates based on the acoustic exposure modeling results described in the preamble (86 FR 5398, January 19, 2021). In order to generate the appropriate take numbers for authorization, the following information was considered: (1) survey type; (2) location (by modeling zone<sup>1</sup>); (3) number of days; and (4) season.<sup>2</sup> The acoustic exposure modeling performed in support of the rule provides 24-hour exposure estimates for each species, specific to each modeled survey type in each zone and season.

Summary descriptions of modeled survey geometries (*i.e.*, 2D, 3D NAZ, 3D WAZ, Coil) are available in the preamble to the proposed rule (83 FR 29220, June 22, 2018). In addition, surveys using single airguns and high-resolution geophysical sources were also modeled. The single airgun was selected as the best available proxy survey type in this case, as ExxonMobil plans to conduct survey effort using two single airguns or, alternatively, a sparker system. Although no sparkers were modeled, use of the single airgun as a proxy source is conservative.

The survey will take place over approximately 338 days, within Zone 3 and adjacent state waters. The seasonal distribution of survey days is not known in advance. Therefore, the take estimates for each species are based on the season that produces the greater value.

For some species, take estimates based solely on the modeling yielded results that are not realistically likely to occur when considered in light of other relevant information available during the rulemaking process regarding marine mammal occurrence in the GOM. The approach used in the acoustic exposure modeling, in which seven modeling

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<sup>1</sup> 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.

<sup>2</sup> For purposes of acoustic exposure modeling, seasons include Winter (December-March) and Summer (April-November).

zones were defined over the U.S. GOM, necessarily averages fine-scale information about marine mammal distribution over the large area of each modeling zone. Thus, although the modeling conducted for the rule is a natural starting point for estimating take, the rule acknowledged that other information could be considered (*e.g.*, 86 FR 5442, January 19, 2021), discussing the need to provide flexibility and make efficient use of previous public and agency review of other information and identifying that additional public review is not necessary unless the model or inputs used differ substantively from those that were previously reviewed by NMFS and the public. For this survey, NMFS has other relevant information reviewed during the rulemaking that indicates use of the acoustic exposure modeling to generate a take estimate for certain marine mammal species produces results inconsistent with what is known regarding their occurrence in the GOM. Accordingly, we have adjusted the calculated take estimates for those species as described below.

In this case, use of the exposure modeling produces results that are smaller than average GOM group sizes for two species (Maze-Foley and Mullin, 2006). NMFS' typical practice in such a situation is to increase exposure estimates to the assumed average group size for a species in order to ensure that, if the species is encountered, exposures will not exceed the authorized take number. However, other relevant considerations here lead to a determination that increasing the estimated exposures to average group sizes would likely lead to an overestimate of actual potential take. In this circumstance, the generally shallow depths (5-50 feet (1.5-15.2 meters)) associated with the survey and relatively small Level B harassment isopleths produced through use of the single airguns or sparker systems mean that it is unlikely that certain species would be encountered at all, much less that the encounter would result in exposure of a greater number of individuals than is estimated through use of the exposure modeling results. As

a result, in this case NMFS has not increased the estimated exposure values to assumed average group sizes in authorizing take.

Based on the results of our analysis, NMFS has determined that the level of taking expected for this survey 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 9 of the rule (86 FR 5322, January 19, 2021).

### **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. For more information please see NMFS’ discussion of the MMPA’s small numbers requirement provided in the 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. 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 (see 86 FR 5404, January 19, 2021). 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/>). For the latter, for taxa where a density surface model could be produced, we use the maximum mean seasonal (*i.e.*, 3-month) abundance prediction for purposes of comparison as a precautionary smoothing of month-to-month fluctuations and in consideration of a corresponding lack of data in the literature regarding seasonal distribution of marine mammals in the GOM. Information supporting the small numbers determinations is provided in Table 1.

**Table 1 -- Take Analysis**

Species	Authorized take	Scaled take <sup>1</sup>	Abundance <sup>2</sup>	Percent abundance
Rice’s whale	0	n/a	51	n/a
Sperm whale	0	n/a	2,207	n/a
<i>Kogia</i> spp.	0	n/a	4,373	n/a
Beaked whales	0	n/a	3,768	n/a
Rough-toothed dolphin	137	39.2	4,853	0.8
Bottlenose dolphin	4,756	1,364.9	176,108	0.8
Clymene dolphin	0	n/a	11,895	n/a
Atlantic spotted dolphin	1,685	n/a	74,785	n/a
Pantropical spotted dolphin	0	n/a	102,361	n/a
Spinner dolphin	0	n/a	25,114	n/a
Striped dolphin	0	n/a	5,229	n/a
Fraser’s dolphin	1 <sup>3</sup>	0.2	1,665	0.0
Risso’s dolphin	0	n/a	3,764	n/a
Melon-headed whale	0	n/a	7,003	n/a
Pygmy killer whale	0	n/a	2,126	n/a
False killer whale	5 <sup>3</sup>	1.3	3,204	0.0
Killer whale	0	n/a	267	n/a
Short-finned pilot whale	0	n/a	1,981	n/a

<sup>1</sup>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.

<sup>2</sup>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 (Roberts *et al.*, 2016). For those taxa where a density surface model predicting abundance by month was produced, the maximum mean seasonal abundance was used. For those taxa where abundance is not predicted by month, only mean annual abundance is available. For Rice’s whale and the killer whale, the larger estimated SAR abundance estimate is used.

<sup>3</sup>Modeled exposure estimate less than assumed average group size (Maze-Foley and Mullin, 2006).

Based on the analysis contained herein of ExxonMobil's proposed survey activity described in its LOA application 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 ExxonMobil authorizing the take of marine mammals incidental to its geophysical survey activity, as described above.

Dated: August 21, 2023.

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Kimberly Damon-Randall,  
Director, Office of Protected Resources,  
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