

**Endangered Species Act - Section 7 Consultation
Biological Opinion**

Action Agency: United States Department of the Interior
Minerals Management Service

Activity: Gulf of Mexico Outer Continental Shelf Multi-Lease Sale
(185, 187, 190, 192, 194, 196, 198, 200, 201)
(F/SER/2002/00718)

Consultation Conducted By: NOAA Fisheries, Southeast Regional Office

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the counties with failing to uphold the ESA by allowing unregulated beach lighting which results in takes of hatchlings.

State-regulated commercial and recreational boating and fishing activities in Gulf waters currently result in the incidental take of threatened and endangered species. It is expected that states will continue to license/permit large vessel and thrill-craft operations which do not fall under the purview of a Federal agency and will issue regulations that will affect fishery activities. Any increase in recreational vessel activity in inshore and offshore waters of the Atlantic Ocean will likely increase the risk of turtles taken by injury or mortality in vessel collisions. Recreational hook-and-line fisheries have been known to lethally take sea turtles, including Kemp's ridleys. Future cooperation between NOAA Fisheries and the states on these issues should help decrease take of sea turtles caused by recreational activities. NOAA Fisheries will continue to work with states to develop ESA section 6 agreements and section 10 permits to enhance programs to quantify and mitigate these takes.

VII. Conclusion

After reviewing the current status of the endangered sperm whale, the green, leatherback, hawksbill, and Kemp's ridley sea turtles, and the threatened loggerhead sea turtle and Gulf sturgeon in the GOM, the environmental baseline, the effects of the proposed action, and the cumulative effects, it is the biological opinion of NOAA Fisheries that the implementation of the proposed action, as described in the Proposed Action section of this Opinion, will adversely affect, but is not likely to jeopardize the continued existence of these species. No critical habitat has been designated for these species in the GOM.

VIII. Incidental Take Statement

Incidental Take Statement

Section 9 of the ESA and Federal regulations promulgated pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2) of the ESA, taking that is incidental to and not intended as part of a Federal agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and must be undertaken by the MMS for the exemption in section 7(o)(2) to apply. MMS has a continuing duty to regulate the activity covered by this incidental take statement. If MMS fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, MMS must report the progress of the action and its impact on the species to NOAA Fisheries as specified in the incidental take statement.

Amount or Extent of Anticipated Take

NOAA Fisheries has determined that there is an expected impact to sea turtles in the action area as a result of OCS oil and gas leasing activities. Based on stranding records, incidental captures during recreational and commercial fishing vessels, scientific surveys, and historical data, the five species of sea turtles are known to occur in GOM waters in and around the action area. Current available information on the relationship between these species and OCS oil and gas activities indicates that sea turtles may be killed or injured by vessel strikes that may happen as a result of the proposed action. Therefore, pursuant to section 7(b)(4) of the ESA, NOAA Fisheries anticipates an incidental take as follows:

1 take (injury or mortality) per year of any sea turtle species by vessel impact over the 35-year life of the proposed action.

If the actual incidental take meets or exceeds this level, MMS must immediately reinstate formal consultation.

NOAA Fisheries believes that an unspecified number of sea turtles will experience sublethal effects as the result of exposure to spilled oil, resulting from the proposed action. NOAA Fisheries believes that sea turtles of any of the five species present in the action area may be killed as a result of exposure to spilled oil. However, NOAA Fisheries is not including an incidental take statement for the incidental take of listed species due to oil exposure. Incidental take, as defined at 50 CFR 402.02, refers only to takings that result from an otherwise lawful activity. The Clean Water Act (33 USC 1251 *et seq.*) as amended by the Oil Pollution Act of 1990 (33 USC 2701 *et seq.*) prohibits discharges of harmful quantities of oil, as defined at 40 CFR 110.3, into waters of the United States. Therefore, even though this biological opinion has considered the effects on listed species by oil spills that may result from the proposed action, those takings that would result from an unlawful activity (i.e., oil spills) are not specified in this incidental take statement and have no protective coverage under section 7(o)(2) of the ESA.

An unspecified number of sperm whales within the action area may be adversely affected by seismic activities and increased vessel traffic, especially in the known nursery area of the Gulf of Mexico. Seismic activities have the potential to disrupt the normal behavior of marine mammals. Any vessel collisions with sperm whales are likely to severely harm or kill the animal. However, NOAA Fisheries is not including an incidental take statement for the incidental take of whale species because the take of marine mammals has not been authorized under section 101(a)(5)(E) of the Marine Mammal Protection Act (MMPA) and/or its 1994 amendments. The MMPA defines "take" to mean to harass, hunt, capture, kill, or attempt to harass, hunt, capture, or kill any marine mammal. Any activities that may adversely affect marine mammals are considered "harassment", and are prohibited under the Marine Mammal Protection Act (MMPA). "Harassment" is further defined under the "take" definition in the MMPA 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; 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.

Following issuance of such regulations or authorizations and a finding of no significant impact in a take authorization under the MMPA, NOAA Fisheries will amend this Opinion to include incidental take of sperm whales. In the interim, NOAA Fisheries strongly recommends that MMS apply for any take authorizations in a timely manner, and continue to require implementation of the mitigation measures as stipulated in its August 22, 2002, NTL and summarized in the Environmental Baseline section of this Opinion. The MMS seismic NTL (No. 2002-G07) issued on August 22, 2002 is considered part of the proposed action for the effects of the lease sales analyzed in this Opinion. The mitigation measures in the NTL represent NOAA Fisheries' best judgement on avoiding serious injury to sperm whales and other marine mammals in the vicinity of seismic activities.

Effect of the Take

In the accompanying biological opinion, NOAA Fisheries determined that the aforementioned level of anticipated take (lethal, or non-lethal) is not likely to appreciably reduce either the survival or recovery of sperm whales, leatherback, green, hawksbill, Kemp's ridley, loggerhead sea turtles, or Gulf sturgeon in the wild by reducing their reproduction, numbers, or distribution. The proposed action, therefore, is not likely to result in jeopardy to any of the above mentioned species. The project area has no designated critical habitat for any of the listed species under NOAA Fisheries' jurisdiction, and therefore no adverse modification of critical habitat is expected from the proposed action.

Reasonable and Prudent Measures

NOAA Fisheries believes the following reasonable and prudent measures are necessary and appropriate to minimize the potential for incidental take of Kemp's ridley, green, loggerhead, leatherback, and hawksbill sea turtles:

- 1) MMS shall minimize the amount of flotsam and jetsam discharged into waters of the Gulf of Mexico as a result of the proposed action to the greatest extent practicable.
- 2) MMS shall implement measures to reduce any potential impacts to listed species by lease sale actions including but not limited to, monitoring, reporting, and space, time, or activity restrictions to protect important habitats from the likelihood of chemical or oil spills.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, MMS must comply with the following terms and conditions, which implement the reasonable and prudent measures described

above and outline required reporting and monitoring requirements. These terms and conditions are non-discretionary.

1. The MMS shall work with offshore oil and gas industry to:
 - a. Prepare a training video that educates offshore industry-related personnel on marine debris that may be generated by industry activities, their vectors of introduction into the marine environment, and measures that personnel are to undertake to eliminate jetsam and flotsam of industry-related trash in the Gulf. The MMS shall condition permits issued to oil companies to require offshore oil and gas industry-related personnel, including support services-related personnel (e.g., helicopter pilots, vessel captains and crews, and various contractors), to view the training video once each year. Lessees and operators will be responsible for certifying that personnel utilized offshore for their respective projects have viewed the training video on an annual basis.
 - b. Review existing practices, regulations, guidelines, and waste management plans to identify gaps that may result in the release of objects that might become flotsam and jetsam in the sea. MMS shall take actions to achieve zero loss of trash and debris to the sea. Any trash and debris lost overboard from facilities or vessels shall be recovered as safety permits. MMS shall document any trash and debris lost from facilities or support/service vessels that is not recovered. Information to document shall include a description of the trash or debris lost, date and location of loss, and source of the loss (platform, aircraft, or vessel). MMS shall submit this information in an annual report to NOAA Fisheries, Southeast Regional Office. Based on review of this information, MMS shall update guidelines accordingly, in the form of a Notice to Lessees and Operators, to eliminate sources of flotsam and jetsam from offshore oil and gas activities. MMS shall provide the NOAA Fisheries, Southeast Regional Administrator with a copy of these guidelines.
 - c. MMS shall condition permits issued to oil companies requiring them to post signs in prominent places on all offshore oil and gas industry-related vessels and surface facilities (e.g., fixed and floating platforms used as a result of the proposed action) detailing the reasons (legal and ecological) why release of debris must be eliminated.
2. MMS shall require that permit holders maintain helicopter traffic over the proposed action area at altitudes above 1,000 feet as practicable, to avoid disturbance to whales and sea turtles.
3. MMS shall condition permits issued to oil companies requiring them to have a training program to train vessel members to observe for sea turtles and sperm whales on support and supply ships while vessels are underway. These observers will be used to help avoid and monitor the take of listed species by support and supply vessel operations. These observers will make a report each trip containing the date and time of day, any sightings of listed species and proper identification if possible, and any incidences of behavioral reaction or injury to the animal.

4. Any takes of listed species shall be reported to the NOAA Fisheries Southeast Regional Office within no more than 48 hours of the incident resulting in the take. The MMS shall require lessees and operators to instruct offshore personnel to immediately report all sightings and locations of injured or dead endangered and threatened species (e.g., sea turtles and whales) to the MMS. The MMS-GOMR shall immediately coordinate with the appropriate salvage and stranding network coordinators to determine if recovery of the impacted animal is necessary, using qualified staff and the appropriate equipment. If oil and gas industry activity is responsible for the injured or dead animals (e.g., because of a vessel strike), the MMS shall require the responsible parties to assist the respective salvage and stranding network as appropriate. Any takes of sea turtles or cetaceans resulting in injury or mortality shall be immediately reported to MMS-GOMR and the NOAA Fisheries representative of the respective stranding networks. All live and dead protected species shall be reported to the following contacts.

Sea Turtle Stranding and Salvage Network: 305-361-4478

Marine Mammal Stranding Network 24-hour pager: 305-862-2850

5. MMS shall complete an annual report to be submitted to the NOAA Fisheries, Southeast Regional Office, Assistant Regional Administrator for Protected Resources, by January 30 of each year. This report will enumerate the number, amount, location, and types of oil or chemical spills resulting from the proposed action for the previous year, and takes of protected species (Section 9 and Federal regulations pursuant to section 4(d) of the ESA) resulting from the proposed action for the previous year. The report shall include the species or detailed description of the animal if positive identification "taken" is not possible, vessel identification, cause and/or circumstances surrounding the take, date, time, location, and name of the person filling out the report.

IX. Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authority to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

In order for NOAA Fisheries to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, NOAA Fisheries requests notification of the implementation of any conservation recommendations.

A. Recommendations for the Seismic Observer Plan

At MMS' discretion, these recommendations may be implemented as modifications of the mitigation measures contained in the August 22, 2002, NTL No. 2002-G07, as summarized in the Environmental Baseline section of this Opinion.

1. At least two observers should be used to monitor the impacted area for the presence of listed marine mammals. At least one formally trained biologist or equivalently experienced individual with the expertise in marine and animal science and who has completed a seismic observer training program should be monitoring the impact zone at all times during surveys and a minimum of 30 minutes prior to ramp-up and during ramp-up.
2. MMS should require that impact zones be calculated based upon an appropriate mathematical model for all marine mammal species inhabiting the GOM until a Take Authorization is obtained pursuant to the Marine Mammal Protection Act 16 USC 1361 *et seq.* Richardson et al. (1995) present an equation for spherical spreading to determine the distance (L_r) at which 180 dB levels or greater would be received within the range of a sound source. The impact zone may be calculated by the logarithmic spherical spreading equation for deepwater propagation (see text for explanation of models);
 $L_r = L_s - 20 \log R$ or $L_r = L_s - 15 \log R$ where:
 L_r = the received level in dB re 1 μ Pa underwater
 L_s = the source level at 1 m in the same units, and
 R = the range in m
3. Seismic survey observer reports should be expanded to include sighting and behavioral information for all cetaceans. Reporting forms presently in use should be filled out completely for all protected species including sea turtles.
4. MMS should encourage the OCS oil and gas industry to research, develop, and deploy passive acoustic monitoring (PAM) technologies, night vision equipment, and other technologies to detect and monitor cetaceans during nighttime seismic operations in lieu of visual monitoring. The fact that sperm whales are vocal means that passive acoustic equipment and methods may offer an effective means of detecting and tracking sperm whales (p. D-9 MMS Draft Geological and Geophysical Exploration EA 2002, Whitehead and Gordon 1986, Gordon 1987, Leaper et al. 1992). PAM systems and procedures may be used in addition to visual observers; however, visual observers will be required when sperm whales are detected within the area of seismic activities. PAM systems that effectively detect sperm whales can be utilized for nighttime seismic surveys.
5. Modifications to the ramp-up procedures for seismic surveys:
 - a. When seismic surveys are conducted during poor visibility or nighttime operations, ramp-up procedures should always be utilized from shut-down. Airguns should not be firing when seismic surveys are not being conducted to limit the duration of acoustic input into the surrounding waters. Nighttime ramp-up should adhere to the same ramp-up

procedures as stipulated for daytime operations. For seismic surveys passive monitoring equipment should be utilized to monitor for sperm whale presence in conjunction with visual verification whenever possible. Passive acoustic monitoring may be utilized in lieu of visual monitoring during nighttime surveys. Use of PAM systems should be encouraged during daytime seismic surveys as well, due to the lengthy dive times of sperm whales. Both visual or passive acoustic detection should warrant shut-down of the airgun array.

- b. Presently, observers are required to monitor the impact zone a minimum of 30 minutes before ramp-up procedures are to commence during daylight hours (dawn to dusk). Also, ramp-up procedures are required to commence again following any shutdown of an airgun array due to cetacean presence in the impact zone or for shut-downs required for other purposes. Shut-downs should occur for detection of sperm whales by visual observers or by PAM detection. Due to the dive time of sperm whales, the duration of monitoring, and area monitored by observers, and the possible "down" time involved from shut-downs and ramp-up procedures in conducting surveys, NOAA Fisheries approves the following alternative. The ramp-up procedures may be waived following a shut-down of the array under the following conditions:

- Environmental conditions allow for monitoring of the entire impact zone.
- The observers (visual, or visual and PAM) monitor the impact zone for the duration of the shut-down period.
- The shut-down period does not exceed 20 minutes.

Observers should monitor the impact zone for a minimum of 30 minutes prior to ramp-up of an array, during ramp-up, during the seismic survey, and should continue monitoring of the impact zone for a minimum of 30 minutes following any shut-down to provide for the detection of any sperm whales that may be surfacing from dives or entering the impact zone. Ramp-up procedures should be required when any cetaceans are observed in the impact zone during the first 20 minutes following a shut-down. Shut-down periods exceeding 20 minutes should result in the commencement of normal ramp-up procedures. This alternative should only apply to daylight seismic surveys where visual verification of sperm whales and other cetaceans in the impact zone may be achieved. If passive acoustic monitoring technology is utilized for nighttime seismic surveys and no sperm whales are detected, shut-downs of airguns lasting less than 20 minutes may initiate firing if no vocalizations (clicks) are detected. For all airgun shut-downs (i.e., day or night) lasting more than 20 minutes or when a sperm whale or other cetacean is within or entering the impact zone, normal ramp-up procedures may commence when no animals are detected within the impact zone.

B. Programs and Research

1. MMS should sponsor programs that research, preserve, and restore the ecology of the Gulf of Mexico marine environment.
2. MMS should sponsor research on juvenile sea turtle habitat in the GOM, which may include the effects of oil and gas exploration, development, and production; including, but not limited to accumulation of debris and /or contaminants along driftlines, juvenile habitat, and breeding grounds.
3. MMS should continue to conduct surveys of the GOM to determine the seasonal distribution and relative abundance of sea turtles and cetaceans to ascertain the extent of impacts relative to OCS oil and gas activities.
4. On June 15-16, 1999, MMS hosted a Marine Protected Species Workshop in New Orleans, LA. MMS, in concert with appropriate agencies and with assistance in funding by industry where possible, should continue efforts in supporting work to carry out the recommendations of the workshop panel. MMS should continue its support of research to determine effects of OCS related noise on sperm whales and sea turtles and present the results at the information transfer meetings.
5. MMS should support investigations into the effects of seismic noise on the distribution of cephalopods and fish (e.g., sperm whale prey items) near seismic vessels, including diel vertical migration, startle effects, and distribution.
6. MMS should work with NOAA Fisheries to determine the stock structure of cetaceans in the GOM, and the effects of oil and gas activities on behavior, breeding, feeding, and distribution. MMS should work with NOAA Fisheries in studying the effects of mercury and other contaminants on cetaceans, sea turtles, Gulf sturgeon, and their prey items in the GOM, and the amounts and sources of mercury from oil production discharges.
7. MMS should continue to partner with NOAA Fisheries to develop programs to minimize risks associated with oil and gas lease sale activities on the ecological health of the GOM ecosystem.

X. Reinitiation of Consultation

This concludes formal consultation on the GOM OCS Lease Multi-Sale (185, 187, 190, 192, 194, 196, 198, 200, 201) for 2003 to 2007. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of the taking specified in the incidental take statement is met or exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat (when designated) in a manner or to an

extent not previously considered, (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion, or (4) a new species is listed or critical habitat designated (e.g., gulf sturgeon) that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, MMS must immediately request reinitiation of formal consultation.