



Fact Sheet on Seismic Surveys

On June 6, 2017, the Department of the Interior released draft authorizations for seismic blasting in the Atlantic Ocean, which paves the way for offshore oil and gas drilling.

Under the Marine Mammal Protection Act, the National Marine Fisheries Service (NMFS) can authorize “negligible” injuries to species or stocks of marine mammals, including whales and dolphins, through Incidental Harassment Authorizations (IHAs). IHAs are required before private companies can conduct seismic blasting to search for potential sites of offshore oil and gas deposits. Here are some of the reasons these requests should be denied:

1. Before authorizations to blast can be issued, NMFS has to prove that only “small numbers” of marine mammal will be hurt. There is no definition of “small” in its rule, but the service is attempting to define that impact at 30 percent of the stocks. Five independent surveys are requested, and they will be blasting the same areas of ocean repeatedly. NMFS has to prove that the activity will have no more than a “negligible impact” on stocks or populations. This seems nearly impossible with five surveys being considered for permitting, especially for the endangered right whales of which only about 500 remain.
2. The service uses very outdated thresholds for blasting in their calculations of how whales and dolphins will be affected. It uses 160 decibel (dB) for behavioral impact and 180 dB for injury. Scientists now know that bowhead whales (a close cousin of the right whale) starts responding behaviorally and decreasing their calling rates at about 100 dB, or 100,000 times less than the threshold. This means the geographic areas of impact will be massive, as would the numbers of animals harmed.
3. **Inadequacy of mitigation:** Since there is no baseline data for most of the species that will be harmed by blasting, NMFS is unable to define “negligible” impacts. Proposed times to close areas to blasting (like Cape Hatteras from July to September) are completely arbitrary. Most whales and dolphins live along the Atlantic coast year-round; extensive use of passive acoustic monitoring will not help reduce injuries since many whales stop vocalizing in the face of noise and therefore will not be heard.
4. Scientists have found the following effects on marine mammals subject to exposure to seismic air gun blasting:
 - Behavioral changes include: avoidance of areas, changes to diving and surfacing patterns, changes to vocalization intensity, frequency, repetition and duration
 - Physiological reactions and/or physical injury: stress and tissue injury due to intense sound exposure (found in beached beluga whales that had been subject to seismic blasts); permanent hearing loss which would leave marine mammals highly vulnerable as auditory communication is essential to their livelihood
 - Ecological effects: loss of prey due to documented avoidance of blast areas by fish that marine mammals depend on for survival



5. Studies have shown that seismic testing could potentially harm commercially valuable fisheries by **decreasing catch rates by as much as 80 percent**. This can affect marine mammals who prey on these species.
- The Department of the Interior estimates that more than 130,000 marine mammals, including endangered species like North Atlantic right whales (which less than 500 remain), will be injured by seismic blasting along the East Coast.
 - The Endangered Species Act (ESA) prohibits harm to species threatened with extinction, including 16 cetacean species, and requires conservation of their habitat.
 - The critically endangered North Atlantic right whale's only habitat is the mid- and south- Atlantic Ocean.
 - Other endangered and threatened marine mammals in blasting area include: fin whales, blue whales, sei whales, sperm whales and humpback and right whales which are observed off the North Carolina coast frequently.

For further information check out our website at nccoast.org/oil and nccoast.org/seismic, or go to dontdrillnc.org for detailed information.

