

Mid- and South Atlantic Geological and Geophysical (G&G) Activities Programmatic Environmental Impact Statement (EIS)

Mitigation Measures for High-Resolution Geophysical Surveys

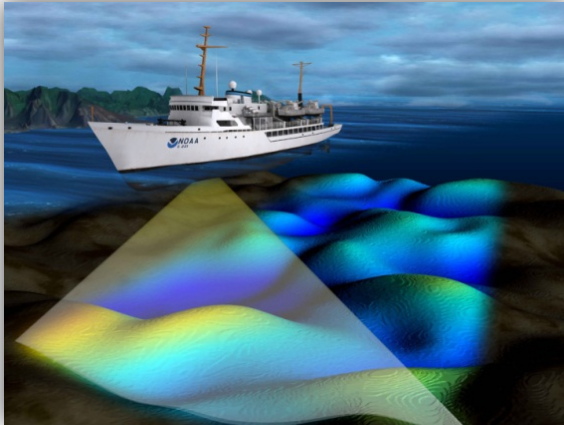
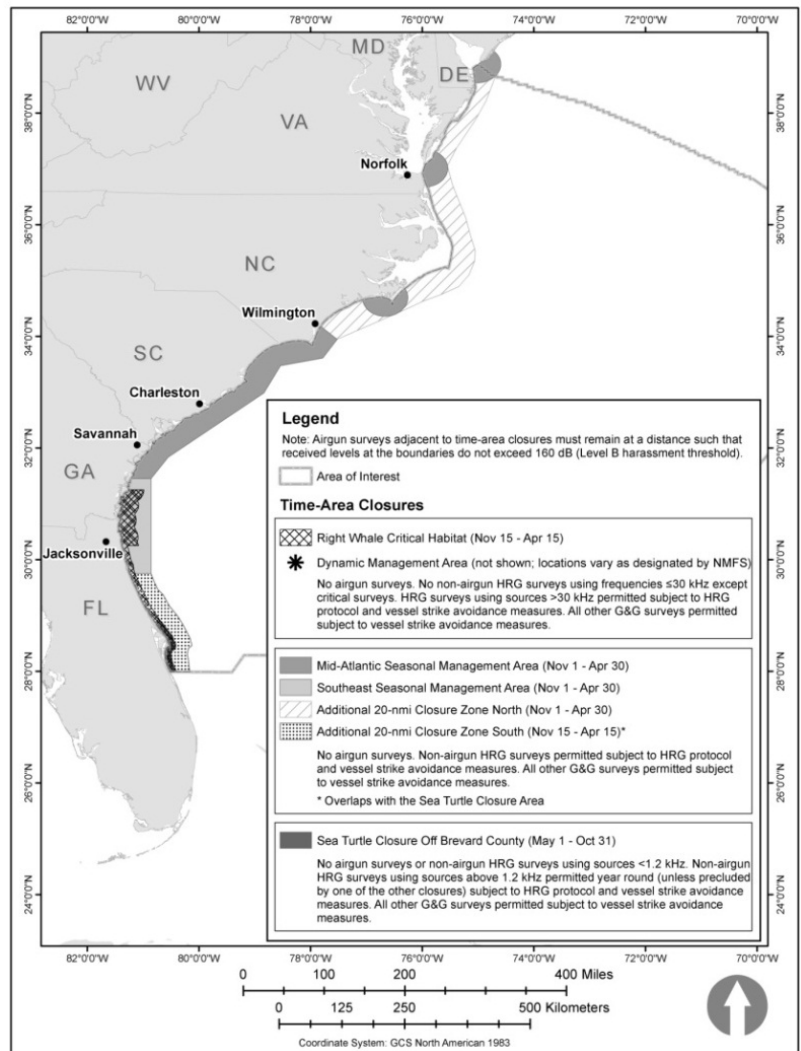


Image of a HRG multibeam echosounder survey (NOAA, 2014).

The Record of Decision and Biological Opinion for the Mid- and South Atlantic G&G Programmatic EIS outlines mitigation measures aimed at preventing the disturbance or injury of marine mammals and sea turtles.

Depending on the sound source levels used during high-resolution geophysical (HRG) surveys (non-airgun), the sound source level may potentially have an impact on marine mammals and sea turtles. In order to protect marine mammals and sea turtles, several mitigation measures have been developed to reduce underwater sound impacts. The HRG survey mitigation measures are based for surveys that produce sound at 200 kilohertz (kHz) or lower. Mitigation measures include the following:

- (1) Acoustic Exclusion Zone.** The purpose of an acoustic exclusion zone is to minimize harm or injury to marine mammals and sea turtles by providing a visual lookout for the animals during survey operations. For HRG surveys operating at 200 kHz or lower, the following is required:
- Acoustic exclusion zone would be visually monitored by a protected species observer (PSO).
 - Acoustic exclusion zone would be a minimum of a 656-foot (200-meter) radius area around the survey equipment.
 - A 60-minute visual clearance period for all marine mammals and sea turtles prior to starting up the survey.
 - Immediate shutdown of the survey if any marine mammal or sea turtle enters the acoustic exclusion zone.
 - An exception to the shutdown requirement would occur if dolphins are voluntarily approaching a survey vessel and the acoustic exclusion zone. The PSO will make the decision if shutdown is needed. An example of a voluntary approach would be dolphins bow or wake riding and/or chasing survey equipment.



- (2) Time-Area Closure for North Atlantic Right Whales and Sea Turtles off Brevard County, Florida.** The purpose of the time-area closures for the North Atlantic Right Whale (NARW) and sea turtles is to decrease exposure of sound source impacts during critical breeding or nesting and migration times. Airgun surveys would not be allowed to occur within a 23-mile (20-nautical mile [nmi]) continuous buffer area extending from Delaware Bay south to just below Palm Bay, Florida. The specific time-area closures are unique to each location.
- (3) Monitoring Requirements.** The PSOs will perform real-time monitoring aboard vessels conducting HRG surveys.
- (4) Nighttime or Reduced Visibility Surveys.** If surveys are authorized at night or during reduced visibility, the acoustic exclusion zone would be monitored using shipboard lighting, enhanced vision equipment, night-vision equipment, and/or passive acoustic monitoring.

For a more detailed information about mitigation measures for HRG surveys, please visit BOEM's website at <http://www.boem.gov/Atlantic-G-G-PEIS/>.