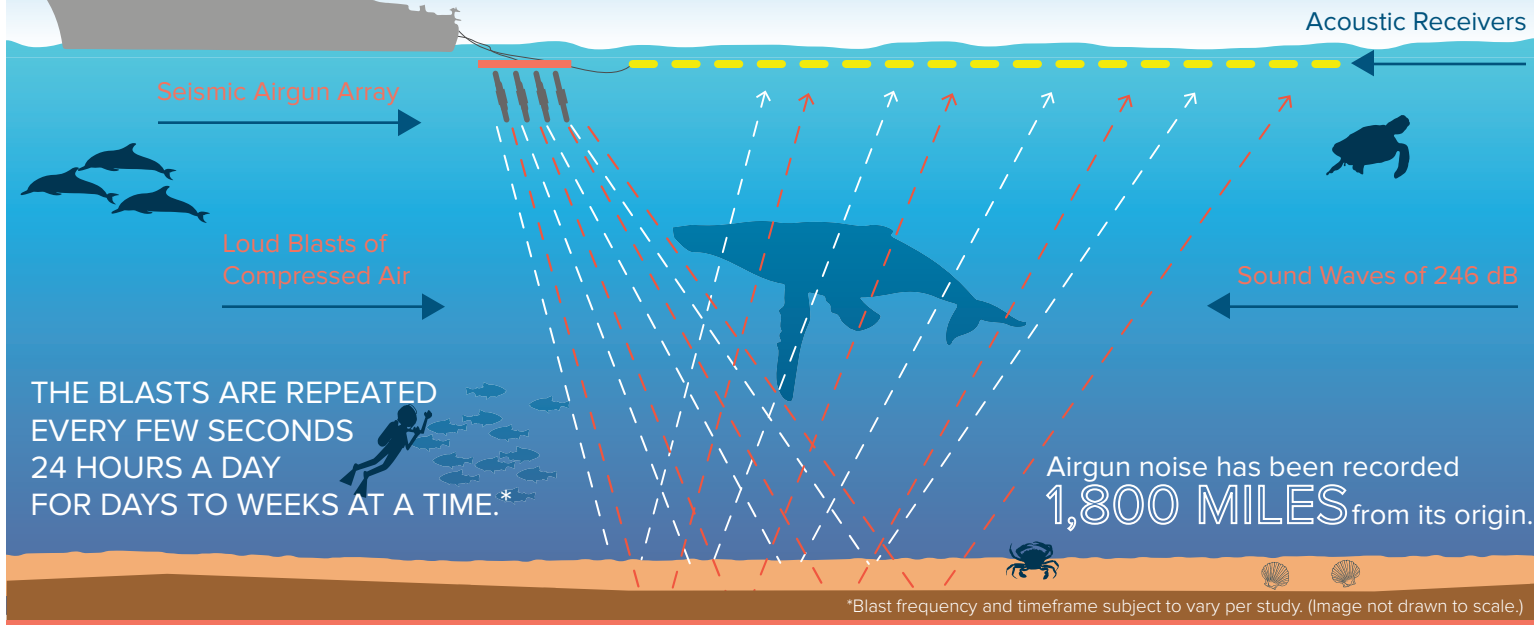




SEISMIC AIRGUN BLASTING

What is it? What are the risks?

Seismic airgun blasting is a practice commonly used by the oil and gas industries to locate deposits deep beneath the seafloor. It is also used for research applications to map buried sediments. An array of airguns is towed by a vessel, blasting extremely loud pulses of compressed air into the water column and deep into the seabed. The reverberations that return to the vessel are interpreted to understand what lies beneath the seafloor.



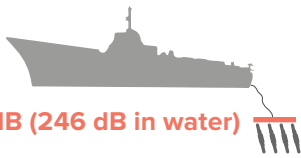
*Blast frequency and timeframe subject to vary per study. (Image not drawn to scale.)

HOW LOUD IS IT?

dB = decibel

A decibel is a measure of sound intensity, and it uses a logarithmic scale. So a sound that increases by 10 decibels is actually *10 times* more intense.

SEISMIC AIRGUN BLASTING



185 dB (246 dB in water)

(100,000 x more intense than jet engine takeoff)

JET ENGINE TAKEOFF

140 dB



THRESHOLD AT WHICH HUMANS FEEL PAIN

130 dB



WHAT ARE THE IMPACTS?

Seismic airgun blasting creates one of the loudest sounds in the ocean, and the intensity and constancy of the sound can **disturb, injure** and even **kill** marine life.

IMPACTS ON MARINE LIFE

For marine life like fish, shellfish, whales, dolphins, and turtles:

- The loud blasting masks social communications used to find mates, forage for food, or identify predators.
- The long-term noise can interfere with nursing, family groups, and migration patterns.
- Repetitive sound waves can cause temporary or permanent hearing impairment and loss, serious injury, or even death.

ECONOMIC AND HUMAN IMPACTS

- Seismic activity impacts marine fisheries, which in 2011 accounted for over **43,000 jobs** in New Jersey alone.
- Commercial fish catch rates in some areas have been shown to decrease by **40-80%** over hundreds of square miles around a single airgun array.
- Seismic activity may result in habitat abandonment, reduced reproductive success, and hearing loss. Both the search and resulting drilling devastate marine ecosystems, degrade habitat, and impact ocean uses like fisheries and tourism.

Clean Ocean Action advocates against seismic airgun blasting and fosters strong bipartisan federal and state opposition to oil and gas activities in the Atlantic Ocean. Learn more about the issue and Clean Ocean Action's work at www.cleanoceanaction.org.

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