



SEISMIC AIRGUN BLASTING

STATUS UPDATE:

The Trump Administration is considering developing 90% of US federal waters for offshore oil and gas development. At the same time, 5 companies were granted permits to conduct harmful ocean blasting to hunt for oil and gas deposits in the Atlantic Ocean. They await only the signature of the Bureau of Ocean Energy Management (BOEM). The Department of Interior will announce which areas of federal waters will be sacrificed to oil and natural gas companies for development soon.

Final decisions on both proposals are looming and could happen at any moment.

WHAT IS SEISMIC OCEAN AIRGUN BLASTING?

- A powerful industrial technology used by oil and gas companies to find deposits of oil and methane gas deep below the seafloor.
- The arrays of seismic guns blast extremely loud pulses of air into the water.

WHERE WILL IT TAKE PLACE?

- Off the coast between Cape May, NJ, and Cape Canaveral, FL.

HOW LONG WILL THE BLASTING CONTINUE?

- The companies may be blasting for up to a year if not longer.
- Blasts occur every 10 to 12 seconds for days or weeks, or months at a time.

WHY IS IT DANGEROUS?

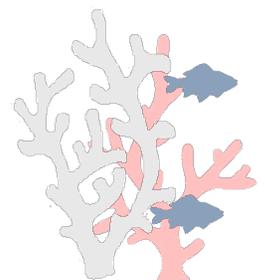
- Seismic blasts produce noise at 250 decibels, louder than the takeoff of a jet engine (140 decibels) and 120 decibels above the threshold at which humans feel pain.
- Marine life is far more sensitive to sound.
- Noise from blasts may be heard by marine life more than 1,800 miles away.
- Stranding events of mammals are 6x more likely to occur under seismic blasting.
- The permits are expected to harm 396,875 mammals. There will be untold impacts to other wildlife.

WHY SHOULD YOU CARE?

- Nothing good for public health or the environment comes from ocean blasting.
- All marine ecosystems off the east coast of the U.S. will be impacted.
- Seismic air blasting leads directly to oil and natural gas drilling.
- Further reliance and use of fossil fuels contributes to climate change.



Oceana, 2019.



WHAT ARE THE IMPACTS?

IMPACTS ON MARINE LIFE:

- Loud blasting masks social communication used to find mates and groups, forage for food and identify predators.¹
- Repetitive sound waves cause temporary or permanent hearing impairment and loss, serious injury to air-filled bladders, or death. Following recent seismic activity, 46 sea turtles were stranded, of which 31 died.²
- Long-term noise interferes with development of fish eggs and larvae, nursing, family groups, and migration patterns.
- Seismic has been found to kill up to 60% of zooplankton, the first level of the marine food chain.³

IMPACTS ON FISHERIES:

- Fish catch rates decrease by 40% to 80% over hundreds of square miles around a single air gun array. The Trump Administration is allowing five companies to blast, each with multiple arrays.
- Fisheries may be impacted by habitat abandonment, reduced reproductive success, and hearing loss of marine animals.⁴
- Under the Marine Mammal Protection Act, fishermen are severely restricted from harming any marine mammals. Here, Big Oil is allowed to harm almost 400,000...outrageous!
- 1.5 million jobs and \$108 billion in GDP generated on the East Coast may be threatened.⁵

INCREASED IMPACTS FROM CLIMATE CHANGE:

- Seismic blasting directly leads to offshore oil and gas drilling which and pollutes our air, lands, and waterways, as well as contributes to climate change.
- Increased use of fossil fuels raises global temperatures resulting in sea level rise, flooding, increased precipitation, and increased frequency and intensity of storms.

WHAT CAN YOU DO TO HELP?

1. ***Sign the petition.*** Help us blast the Bureau of Ocean Energy Management with opposition to Geological and Geophysical permits *before* their approval. Add your name to the petition here: <https://goo.gl/forms/P8WMgnsy7AXLU4vD3>.
2. ***Join our letter campaign.*** Send a message or write a letter to President Trump to voice your opposition to seismic blasting in the Atlantic Ocean. Use message templates here: <https://docs.google.com/document/d/1JYIVrhPJ>.
3. ***Get social.*** Blast BOEM and President Trump with by tagging @realdonaldtrump, @POTUS, and @BOEM_DOI with the hashtag #StopOceanSeismic and tell them why you are against seismic surveys.

Produced by Clean Ocean Action, March 2019 For more information: www.CleanOceanAction.org

¹ A.G. Carroll, et. al., Marine Pollution Bulletin, January 15, 2017, <https://doi.org/10.1016/j.marpolbul.2016.11.038>.

² Stuart Winer, The Times of Israel, Dozens of injured sea turtles found washed up on Israel's coast, January 14, 2019, <https://www.timesofisrael.com/dozens-of-injured-sea-turtles-found-washed-up-on-coast-15-saved/>.

³ Sarah Gibbens, National Geographic, <https://news.nationalgeographic.com/2017/06/seismic-survey-air-gun-oil-gas-exploration-zooplankton-spd/>

⁴ Fisheries of the United States, National Marine Fisheries Service, <https://www.st.nmfs.noaa.gov/Assets/commercial/fus/fus12/FUS2012.pdf>.

⁵ Clean Coast Economy, OCEANA, <https://usa.oceana.org/publications/reports/clean-coast-economy>

