

**TESTIMONY OF THE HONORABLE TOM DAVIS, STATE SENATOR OF SOUTH
CAROLINA
U.S. HOUSE COMMITTEE ON NATURAL RESOURCES'
SUBCOMMITTEE ON ENERGY & MINERAL RESOURCES
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Good morning, Chairman Gosar, Ranking Member Lowenthal, and honorable committee members. My name is Tom Davis, and I am a Republican state senator from Beaufort, South Carolina. I greatly appreciate the opportunity to testify before you today about the importance of protecting the Atlantic Coast from offshore drilling and seismic airgun blasting. My testimony today will cover the impacts of seismic testing and offshore drilling, the lack of justification for changing the permitting process, the legal and transparency problems associated with seismic airgun blasting, the significant economic impacts offshore drilling and seismic testing would bring to our coast, and the large, bipartisan opposition to offshore drilling and seismic airgun blasting.

1. Impact of seismic testing:

Seismic testing involves firing loud sonic guns into the ocean floor every 16 seconds to read echoes from the bottom geology, with the tests taking place over miles of ocean for months at a time. The National Oceanic and Atmospheric Administration (NOAA) confirms that the sound from the seismic airguns can be recorded from sites more than 1,860 miles away, equivalent to the distance from Washington, DC to Las Vegas.

Scientists agree that seismic airgun blasts could alter marine mammals' behavior, affecting their migration patterns, mating habits and how they communicate with each other. Most animals in the ocean use sound the way animals on land use eyesight; saturating their environment with noise will have an impact. NOAA estimates that 138,000 marine animals could be injured, and 13.6 million could have their migration, feeding, or other behavioral patterns disrupted.

Proponents of seismic airgun blasting often mischaracterize an old quote from Dr. Bill Brown of BOEM, claiming that seismic airgun blasting has no impact on marine mammal populations – populations being the key qualifier. However, there is a substantial body of peer-reviewed science showing that seismic airgun blasting negatively affects marine mammals, potentially even at the population level. For example, whales exposed to seismic airgun noise stop producing vocalizations that are essential to feeding, avoiding predators, breeding, and raising their young. In the baleen whales, these impacts can occur across vast distances, as much as 100,000 square kilometers or more around a single seismic array. Recent science shows that there are population level impacts.¹

¹ *E.g.*, Castellote, M., Clark, C.W., and Lammers, M.O., Acoustic and behavioural changes by fin whales (*Balaenoptera physalus*) in response to shipping and airgun noise, *Biological Conservation* 147: 115-122 (2012); Cerchio, S., Strindberg, S., Collins, T., Bennett, C., and Rosenbaum, H., Seismic surveys negatively affect humpback whale singing activity off Northern Angola, *PLoS ONE* 9(3): e86464 (2014); Blackwell, S.B., Nations, C.S., McDonald, T.L., Thode, A.M., Mathias, D., Kim, K.H., Greene, C.R., Jr., and Macrander, M., Effects of airgun sounds on bowhead whale calling rates: Evidence for two behavioral thresholds, *PLoS ONE* 10(6): e0125720 (2015).

Furthermore, scientific studies show behavioral and physiological impacts to marine life. These include a 2017 study documenting seismic airgun blasting killing zooplankton up to three-quarters of a mile away;² a 2017 study documenting seismic airgun blasting causing mass mortality in scallops and severely impacting the remaining scallops' immune systems;³ a 2017 study documenting that seismic airgun blasting increases stress levels, which according to the study, causes the oysters to stop feeding and breathing;⁴ a 2017 study documenting seismic airgun blasting decreasing the white blood cell counts in spiny lobsters, leading to higher rates of immune infections;⁵ a study documenting seismic airgun blasting depressing longline cod and haddock catch by 70-80%;⁶ and a 2017 study documenting a 78% decline in reef-fish abundance after seismic airgun blasting was conducted in the area.⁷

GAO study of seismic permitting

The new study by the Government Accountability Office (GAO) that is the topic of this hearing does not, in fact, identify any significant deficiencies in the permitting process for offshore seismic surveys. The GAO conducted an extensive review, and its expert reviewers do not propose any of the drastic changes that were included in H.R. 3133, legislation that recently passed this committee. H.R. 3133 would eviscerate the balanced process for issuing Incidental Harassment Authorizations (IHAs) in order to fast-track seismic airgun surveys and other industrial actions in the ocean that can harm whales, dolphins, and other marine mammals.

The GAO reviewers' recommendations are minor. They recommend that the two agencies that issue Incidental Harassment Authorizations, the National Marine Fisheries Service and the Fish and Wildlife Service, develop guidance on when and how staff should record the date on which the agency determines the "adequacy and completeness" of the application. Then the agencies should analyze their timeframes for reviewing IHAs and compare them to the statutory timeframes. These are trivial process recommendations and do not provide justification for wholesale changes that undermine important and necessary protections for marine mammals.

Furthermore, since 2006, the Fisheries Service issued 25 out of 26 IHAs for offshore oil and gas activities involving seismic surveys within its own 6 to 9-month target timeframe.⁸ While four IHAs exceeded the

² McCauley R, *et al.* (2017) Widely used marine seismic survey air gun operations negatively impact zooplankton. *Nature Ecology & Evolution*. Article number: 0195. doi:10.1038/s41559-017-0195.

³ Day R, *et al.* (2017) Exposure to seismic air gun signals causes physiological harm and alters behavior in the scallop *Pecten fumatus*. *Proceedings of the National Academy of Sciences of the United States* 114(40): E8537–E8546, doi: 10.1073/pnas.1700564114.

⁴ Charifi M, *et al.* (2017) The sense of hearing in the Pacific oyster, *Magallana gigas*. *PLoS ONE* 12(10): e0185353. <https://doi.org/10.1371/journal.pone.0185353>.

⁵ Fitzgibbon Q, *et al.* (2017) The impact of seismic air gun exposure on the haemolymph physiology and nutritional condition of spiny lobster, *Jacus edwardsii*. *Marine Pollution Bulletin*. 125: 146-156.

⁶ Engas A, *et al.* (1996) Effects of seismic shooting on local abundance and catch rates of cod (*Gadus morhua*) and haddock (*Melanogrammus aeglefinus*). *Canadian Journal of Fisheries and Aquatic Sciences*, 53:2238-2249. doi: 10.1139/cjfas-53-10-2238.

⁷ Paxton A, *et al.* (2017) Seismic survey noise disrupted fish use of a temperate reef. *Marine Policy*. 78:68-73. doi: 10.1016/j.marpol.2016.12.017.

⁸ NOAA Fisheries, *Oil & Gas: Incidental Take Authorizations*, <http://www.nmfs.noaa.gov/pr/permits/incidental/oilgas.htm> (last visited Jan. 8, 2018); *see also* Attachment 2 – Timeframe for Incidental Take Authorizations for Oil and Gas Activities Involving Seismic Surveys (1998-Present).

timeframe from the original submission date, only one exceeded the timeframe from the date of final revisions to the application. In these four cases, the additional time was minimal – one to three months.⁹ For the four Letters of Authorizations, two were issued in the 12 to 18-month timeframe, one took 24 months, and the timeframe for one is unclear.¹⁰ The applicants are often the source of delay. If the applicants do not provide enough information, the Fisheries Service must return the application for revisions and addendums.¹¹ The MMPA statutory standards are neither ambiguous nor the source of the alleged delay.

2. Results of seismic tests would be proprietary to private companies.

Proponents for testing and drilling often argue that seismic tests are necessary in order to provide coastal communities with data about oil and gas deposits off their shores to assess whether it makes economic sense to move forward with drilling for those resources. But that information is considered proprietary by the private companies conducting them. Local decision makers won't have access to it, nor will the public. Not even members of Congress can get their hands on it.

Currently, there are five companies awaiting final permits from the Bureau of Ocean Energy Management (BOEM) to conduct seismic testing along the Atlantic Coast. Most of these companies are European and will not be investing in our communities. In fact, Reuters reported that a French-based company, CGG, is dependent on the Atlantic contract to avoid bankruptcy.¹² Therefore, BOEM is literally putting French business interests ahead of hard-working American workers who are dependent on healthy ocean ecosystems for survival.

3. Damages associated with drilling.

Accidents happen in a world where human error, mechanical imperfections and coastal hurricanes all play unexpected roles. When you drill, you spill. It is inevitable. The oil industry touts a 99% safety record, but that 1% is pretty horrific for people living in the vicinity of a spill when it occurs. The federal government predicts at least one oil spill a year for every 1,000 barrels in the Gulf of Mexico over the next 40 years – a spill of 10,000 barrels or more every three to four years.

We saw what happened in the Gulf of Mexico in 2010 when the *BP Deepwater Horizon* rig spilled millions of barrels of oil into the Gulf. It was a disaster, but thankfully the Gulf's bowl-like shape contained the spill in that region. A similar spill off the Atlantic Coast would be a disaster of epic proportions. If oil entered

The timeframes are not mandatory, but estimates of how long it will take for the Fisheries Service to process the applications.

⁹ See Attachment 2 – Timeframe for Incidental Take Authorizations for Oil and Gas Activities Involving Seismic Surveys (1998-Present).

¹⁰ See *id.*

¹¹ As the Fisheries Service notes: "If your application is incomplete, it will be returned to you with an explanation. The formal processing of the request does not begin until the application is deemed adequate and complete (with enough information for us to analyze the potential impacts on marine mammals, their habitats, and on the availability of marine mammals for subsistence uses)." NOAA Fisheries, *Apply for an Incidental Take Authorization*, <http://www.nmfs.noaa.gov/pr/permits/incidental/instructions.htm> (last visited Jan. 8, 2018).

¹² French oil services firm CGI files for bankruptcy. *Reuters* (2017). Available: <https://www.reuters.com/article/france-cgg/french-oil-services-firm-cgg-files-for-bankruptcy-idUSL8N1JB6H8>. Accessed January 17, 2018.

the Gulf Stream it could be forced up into the Chesapeake Bay, the Hudson River Valley, the Gulf of Maine, and the Grand Banks, which are some of the richest fishing grounds in the world.

The Gulf of Mexico *BP Deepwater Horizon* blowout showed that oil cannot be removed from salt marshes and other wetland systems. It can remain in the sediments for decades, as was seen in marshes in Massachusetts. Coastal salt marshes in South Carolina are among the most productive ecosystems in the world and are nursery grounds for many estuarine and marine species. Toxic substances from oil spills, both chronic and acute, will put all of these organisms at risk.

Even if a spill never occurs – and both the oil industry and the federal government admit that spills are inevitable – there’s still an adverse impact to South Carolina’s coast in that the land-based infrastructure necessary to support offshore drilling is dirty and highly industrial. Also, the infrastructure required to transport offshore oil is devastating. For example, a series of canals built across Louisiana wetlands to transport oil has led to vast destruction of marshlands. Healthy marshlands are a critical component of our ecosystem.

Sometimes we hear elected officials claim that they want to explore and drill for natural gas only, while leaving the oil in the ground. One doesn’t explore for just gas. By law, they must first produce the oil before they produce the gas in order to “maximize ultimate recovery...”¹³ This is because when oil and gas occur together in a reservoir, as the oil is produced, the gas cap expands helping to remove the oil, essentially pushing it out of the pore spaces in the rocks. When exploration wells are drilled, one finds oil and/or gas and/or water and/or nothing. Then the oil company determines if it’s economical to produce the reserves they found, and if so, submits a plan to BOEM about how they will produce the well.

4. Economics.

Hydraulic fracking has increased domestic petroleum production by 64%. The federal Energy Information Administration now predicts the nation will be a net energy exporter within a decade – for the first time since the 1970s. There’s no need for offshore oil production off South Carolina’s coast, especially in light of the costs noted above.

The American Petroleum Institute says oil and gas drilling could result in \$2.7 billion to South Carolina over a two-decade period. That sounds like a fairly big number, but according to the South Carolina Department of Parks, Recreation, and Tourism, tourists in South Carolina spent nearly ten times that amount — more than \$20 billion — in 2015 alone, with about 60% of that resulting from tourism to coastal areas. Even the most lucrative oil and gas scenario would generate less than 1% of the economic impact tourism has on the state. Further, these industries do not live harmoniously. Along the Gulf coast, beach goers are provided with wipes to clean the oil and tar balls from their feet after walking the beach. To the residents of South Carolina, that scenario is unacceptable, as our beaches are major revenue generators, and part of our way of life. Moreover, tourism revenue increases every year with no signs of that trend slowing; the same cannot be said of the demand for oil.

¹³ 30 CFR § 250.1150. Available: <https://www.gpo.gov/fdsys/pkg/CFR-2013-title30-vol2/pdf/CFR-2013-title30-vol2-sec250-1150.pdf>.

This new National OCS Program proposes to offer leases in areas that have extensive military operations, thus risking our national security training and readiness. The draft plan deviates from the longstanding tradition of deference to the Department of Defense (DoD) when offering offshore drilling leases in federal waters. The Atlantic and Eastern Gulf of Mexico are home to critical coastal military facilities, including Norfolk Naval Station - the largest naval station in the world. In the Atlantic Ocean, DoD conducts extensive readiness operations including live fire tests, air-to-surface bombing exercises, homing torpedo testing, supersonic test flights, laser targeting operations, and both Naval Air and Sea Systems Command. DoD's 2015 report on mission compatibility with offshore leasing indicated that significant restrictions on oil and gas activity in the Mid-Atlantic and South Atlantic planning regions would be necessary to ensure that DoD activities would not be impaired.

Furthermore, DoD has made it clear that the continuation of the moratorium on oil and gas leasing in the Eastern Gulf of Mexico is essential to vital military readiness activities. An April 2017 letter from the Office of the Under Secretary of Defense states, "The Department of Defense (DoD) cannot overstate the vital importance of maintaining this moratorium." The letter continues, "The moratorium on oil and gas 'leasing, pre-leasing, and other related activities' ensures that these vital military readiness activities may be conducted without interference and is critical to their continuation. Emerging technologies...will require enlarged testing and training footprints, and increased DoD reliance of the Gulf of Mexico Energy Security Act's moratorium beyond 2022." A separate June 2017 letter from the Air Force states, "The moratorium is essential for developing and sustaining the Air Force's future combat capabilities."

That total amount of energy resources, according to Department of Interior estimates, would keep the U.S. in oil for 61 days. And there's no guarantee that the drilling will pan out at all. Five wells have been drilled in this section of the Atlantic in the past, the last being in 1962. All were abandoned. Cuba has put down four wells as recently as 2012, and all were found to be uneconomical, and have been capped. These numbers are peanuts compared to what South Carolina produced annually in GDP and jobs generated by healthy ocean ecosystems including fishing, recreation and tourism. In 2014 alone, these industries generated over \$4.4 billion in GDP and nearly 79,000 jobs.¹⁴ Industrializing our coast and risking our ocean and way of life is not worth the economic trade off.

5. Alternative energy.

We must wean ourselves from dirty, nonrenewable fossil fuels and invest more in renewable sources such as wind, solar and geothermal. External costs, or externalities, are never fully allocated to companies that drill for oil – and that gives such companies an unfair advantage over companies developing alternative sources of energy — sources that tend to be, by design, cleaner and more sustainable.

6. Forms of opposition to offshore seismic testing and drilling.

Legal: When the prior administration removed the Atlantic coast from the Five-Year Plan for 2017-2022, they also rejected six permits pending to begin seismic testing for oil and gas. Instead of requiring new

¹⁴ Offshore Energy by the Numbers: An Economic Analysis of Offshore Drilling and Wind Energy in the Atlantic, by Andrew Menaquale, Oceana, January 2015.

seismic survey applications, the Secretary of Interior remanded the applications. These now outdated applications are currently in the process of being reviewed by the Bureau of Ocean Energy Management (BOEM) and associated federal agencies, including the National Marine Fisheries Service (NMFS). In order for the seismic permits to move forward, NMFS must first issue “Incidental Harassment Authorizations” to allow the “taking” of marine mammals. There is no new significant science that counters the logic used by the previous Administration’s reasoning for denying these permits. If anything, the science has increasingly shown harm to marine life from seismic airgun blasting. Worse, if the seismic permits are issued, paving the way for oil and gas exploration and drilling the Administration should expect immediate litigation from state and local governments, constituents and NGOs across the Atlantic coast.

Political:

Recently, Secretary Zinke met with Florida Governor Rick Scott on the tarmac of the Tallahassee Airport, where in front of several TV cameras, the Secretary announced that due to the Governor’s opposition to Florida being included in the five-year plan, and Florida’s unique coastal environment and tourism, the state will now be removed from the five-year plan. While that is great that the Governor and Secretary are listening to local leaders, businesses and constituents, nearly every other state along the Atlantic Coast has requested the same meeting and treatment Gov. Scott received. In fact, on the East Coast, Governors from Florida, South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Rhode Island, New Hampshire, Connecticut, and Massachusetts all oppose the newly-released draft five-year plan. It should be noted that the Governors of Georgia and Maine have recently shifted their position from supporting more offshore drilling off their coast to expressing concerns with this new National OCS program. Additionally, it’s not entirely clear that Florida is removed, formally, until the Proposed Program is released.

7. Bottom line: who do we want to be?

The opposition is bipartisan and wide-ranging. More than 160 municipalities along the East Coast have passed resolutions opposing offshore oil and gas drilling and exploration. In addition, the New England, Mid-Atlantic, and South Atlantic Fishery Management Councils; the Department of Defense; Air Force; Florida Defense Support Task Force and NASA have all weighed in to express serious concerns or opposition to these activities. More than 42,000 businesses and 500,000 fishing families have also joined this overwhelming chorus of voices and officially said “no” to testing and/or drilling.

Some politicians try to straddle the fence, saying they want the jobs the oil industry would bring, but they don’t want to do anything to harm our beaches and tourism. But you can’t have both. You cannot wholeheartedly protect the environment South Carolina is fortunate to enjoy, yet be willing to risk it for the unknown.

Seismic testing and oil drilling pose unknown threats to our coast that could include devastating damage to our beach communities and the water quality we enjoy. Oil and water should not mix, and now is a time of choosing. We must pick one or the other. Coastal communities and local voices have already voiced their choice. We want to protect our water, our coast, and way of life from unacceptable and devastating impacts of seismic testing and offshore drilling. Washington needs to listen.

I thank you for the opportunity to testify here today and I look forward to answering your questions.