Oceana's Opposition to Spanish Seismic Is Based on Bad Science, Bad Fact and Bad Policy

I. EXECUTIVE SUMMARY

Oceana has published a Report and press release arguing that offshore seismic exploration for oil and gas should be banned between Catalonia and the Balearic Islands.[1] Some press has covered this Report and press release uncritically.[2]

Oceana's press release summarizes their Report:

> "More than 17 million marine hectares, 82 protected areas and nearly 200 protected or regulated species are endangered by the seismic oil prospecting projects between Catalonia and the Balearic Islands. "[3]
> And
> "Even a kilometre away, the sound intensity would be similar to a nuclear explosion like Hiroshima, and effects have been verified at tens or even hundreds of kilometres further away."[3]

Oceana's inflammatory warning is factually incorrect. Extensive study by regulatory agencies and by independent scientists demonstrates that seismic airguns, as currently regulated in the U.S. and elsewhere, does no physical harm.

Oceana is also wrong when it claims that the Mediterranean countries and their citizens will not benefit economically from a successful oil and gas industry in their waters. Banning oil and gas exploration offshore of Spain and other Mediterranean nations would be economically irresponsible.

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[1] Oceana's report is available at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf . Oceana's press release is available at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a . CRE has translated into English those portions of the report that we quote in this article.

[2] See "Oceana warns of seismic surveys damage," Worldfishing and Aquaculture, at http://www.worldfishing.net/news101/industry-news/oceana-warns-seismic-surveys-harm-fisheries .

[3] Press Release, at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a .

Oceana's proposed ban on seismic should be rejected, and the media should present a balanced and objective discussion of this issue.

II. DISCUSSION

Oceana's Report and press release ignore the fact that offshore seismic has occurred in the world for decades without harm to marine mammals or fish populations. A substantial body of regulation prevents harm in the U.S. and in the Mediterranean.

This existing regulation includes the Guidelines to *Address the Impact of Anthropogenic Noise on Cetaceans in the ACCOBAMS Area*.[4] Spain is a signatory to ACCOBAMS (Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area). The ACCOBAMS guidelines do not ban seismic airguns. Instead, like the U.S. seismic guidelines, they rely on exclusion zones around seismic vessels; on monitoring; on marine mammal observers; and on other mitigation measures to prevent risk of injury from oil and gas seismic.[5] These mitigation measures have long been employed in U.S. waters, with remarkable success.

For example, the U.S. Bureau of Ocean Energy Management ("BOEM"), which is part of the U.S. Department of the Interior, recently stated with regard to the Gulf of Mexico:

> "NTL 2012-JOINT-G02, 'Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program,' minimizes the potential of harm from seismic operations to marine mammals. These mitigations include onboard observers, airgun shut-downs for whales in the exclusion zone, ramp-up procedures, and the use of a minimum sound source. Therefore, no significant cumulative impacts to marine mammals would be expected as a result of the proposed exploration activities when added to the impacts of past, present, or reasonably foreseeable oil and gas development in the area, as well as other ongoing activities in the area. Within the CPA, which is directly adjacent to the EPA, there is a long-standing and well-developed OCS Program (more than 50 years); there are no data to suggest that activities from the preexisting OCS Program are significantly impacting marine mammal populations."[6]

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[4] The ACCOBAMS Guidelines are available at http://www.accobams.org/images/stories/Guidelines/guidelines%20to%20address%20the%20impact%20of%20anthropogenic%20noise%20on%20cetaceans%20in%20the%20accobams%20area.pdf .

[5] U.S. seismic regulation is discussed in documents available at http://www.thecre.com/creipd/?p=1046 .

As another example, BOEM recently stated:

> "Although there will always be some level of incomplete information on the effects from routine activities under a [GOM] CPA proposed action on marine mammals, there is credible scientific information, applied using acceptable scientific methodologies, to support the conclusion that any realized impacts would be sublethal in nature and not in themselves rise to the level of reasonably foreseeable significant adverse (population-level) effects. Also, routine activities will be ongoing in the CPA proposed action area as a result of active leases and related activities. As of May 2012, there are 4,377 active leases in the CPA. Within the CPA, there is a long-standing and well-developed OCS Program (more than 50 years); there are no data to suggest that routine activities from the preexisting OCS Program are significantly impacting marine mammal populations."[7]

The U.S. National Academy of Sciences' National Research Council agrees with the Department of Interior that "there are no documented or known population-level effects due to sound," and has concluded with regard to the entire Outer Continental Shelf that "[T]here have been no known instances of injury, mortality, or population level effects on marine mammals from seismic exposure…."[8]

As another example, The U.S. National Marine Fisheries Service ("NMFS") agrees that "to date, there is no evidence that serious injury, death, or stranding by marine mammals can occur from exposure to airgun pulses, even in the case of large airgun arrays."[9]

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[6] Bureau of Ocean Energy Management's Draft Environmental Impact Statement ("DEIS"), for the Gulf of Mexico, Outer Continental Shelf ("OCS"), Eastern Planning Area ("EPA") Lease Sales 225 and 226, page 2-22. The DEIS is available online at http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx .

[7] Gulf of Mexico OCS Oil and Gas Lease Sales: 2012-2017; Western Planning Area Lease Sales 229, 233, 238, 246, and 248; Central Planning Area Lease Sales 227, 231, 235, 241, and 247; Final Environmental Impact Statement; Volume I, page 4-215; Volume II , page 4-710; available online at http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx .

[8] Outer Continental Shelf Oil & Gas Leasing Program, 2007-2012 Programmatic Environmental Impact Statement, page V-64 (MMS April 2007), available online at http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx .

[9] 75 FR 49759, 49795 (Aug. 13, 2010), available online at

Oceana's Report and press release in particular claim that Mediterranean sperm whales will be endangered.[10] Sperm whales in the Gulf of Mexico have been extensively studied.[11] There is no evidence that seismic airguns have injured any individual sperm whale or adversely affected sperm whale populations.[12]

Oceana's Report and press release also incorrectly claim that seismic will harm Mediterranean fishing.[13] The U.S. regulatory agencies have extensively studied oil and gas exploration and extraction (including seismic), and they conclude that:

> "Overall, impacts to fish or essential fish habitat (EFH) from routine Program activities [including seismic] are expected to range from negligible to minor for fish and up to moderate for EFH, and no impacts on threatened or endangered fish species are expected."
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> ***
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> "Commercial and Recreational Fisheries
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> Routine operations could have minor impacts on commercial and recreational fisheries. Impacts would be associated primarily with vessel traffic and structure placement, presence, and removal, each of which could temporarily displace fishes away from the area and limit fishing success. However, these impacts would be temporary, and population-level effects on commercial and recreational fishery resources are not anticipated from these routine operations. Once platforms are installed and production activities begin, offshore structures would act as fish attraction devices for both pelagic and reef-associated species; these structures would also be attractive for recreational fishing. Seismic surveys and

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http://edocket.access.gpo.gov/2010/2010-19962.htm .

[10] *E.g,* Report, page 4 at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf ; Press Release, at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a .

[11] E.g., Sperm Whale Seismic Study in the Gulf of Mexico, Synthesis Report, at http://seawater.tamu.edu/SWSS/doc/2008-006.pdf .

[12] *E.g., Id.*

[13] *E.g.,* Report, pages 14-15 at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf ; Press Release at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a .

> construction of platforms and pipelines could result in space-use conflicts with commercial and recreational fishing activities, although these effects would be localized. Space-use conflicts, in the case of seismic surveys, would be short in duration. "[14]

The Report and press release also incorrectly claim that seismic will harm Mediterranean sea turtles.[15] This is a "very low" and "unlikely" risk:

> "**Management Measures:** The potential for physical damage is very low and would only occur if the turtle was in very close proximity (within a few metres) of the airgun array during discharge. Threshold shift may occur if the turtle is continuously exposed over several hours to levels in excess of approximately 185 dB re 1 μPa. However is considered unlikely since the animal would need to swim parallel to the vessel within a range of less than about 200 m for several hours. No additional management measures for prevention of physical damage to turtles are considered necessary."[16]

The Report and press release mistakenly cite U.S studies on Atlantic seismic in support of their arguments against Mediterranean seismic.[17] As discussed above, the U.S. authorities have concluded that there is minimal risk to the environment from oil and gas seismic as currently regulated. Moreover, Oceana's arguments are based primarily on

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[14] Outer Continental Shelf Oil and Gas Leasing Program: 2012-2017, Final Programmatic Environmental Impact Statement, BOEM (July 2012), pages liii and Lvi, at http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/2012-2017_Final_PEIS.pdf.

[15] *E.g.*, Report, page 14, at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf ; Press Release at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a .

[16] Marine Seismic Surveys and Turtles: a short review of environmental risk and management, MacroEnvironmental, at http://www.environment.com.au/?p=169.

[17] *E.g.*, Report, page 3, at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf ; Press Release at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a

inaccurate computer model estimates that do not correlate with observational data, and which have never passed peer review.[18]

The Report and press release also incorrectly claim that the sound intensity of oil and gas seismic is "similar to a nuclear explosion like Hiroshima," and is "a 100,000 times higher intensity to those generated by the engine of a jet plane."[19] Neither document provides any support for these inflammatory and unscientific claims.

Finally, the Report argues that the discovery and production of oil and gas in Mediterranean waters would be of no economic benefit to the countries owning the oil and gas in those waters, and would in fact cause "millions of euros in losses."[20] This argument is ridiculous. A flourishing oil and gas industry would be of great benefit to Mediterranean nations. Given the lack of any harm in areas like the Gulf of Mexico, where oil and gas operations have occurred for decades, not allowing reasonably regulated seismic exploration to occur in the Mediterranean would be economically irresponsible.

I. CONCLUSION

Oceana's proposed ban on seismic is not based on science or fact. It is inconsistent with the ACCOBAMS seismic guidelines and with U.S. experience. The ban is unwarranted and unnecessary and will deprive Mediterranean nations the economic benefits of a prosperous oil and gas industry within their waters. It should be rejected, and the press should present a balanced and objective discussion of this issue.

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[18] See, e.g., CRE Comments on BOEM's draft EIS for Atlantic Seismic, pages 2, 8-12, at http://www.thecre.com/creipd/wp-content/uploads/2009/06/Atlantic-PEIS-Comments-Center-for-Regulatory-Effectiveness-May-30.pdf.

[19] Report, page 2, at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf ; Press Release, at http://oceana.org/en/eu/media-reports/press-releases/the-noise-of-the-seismic-surveys-between-cataluna-and-the-balearic-islands-will-affect-an-area-a .

[20] Report, pages 15-16, at http://oceana.org/sites/default/files/euo/Alegaciones_Oceana_proyecto_2D_Mar_Balear_completo.pdf .