

## SHORELINES – May 2016

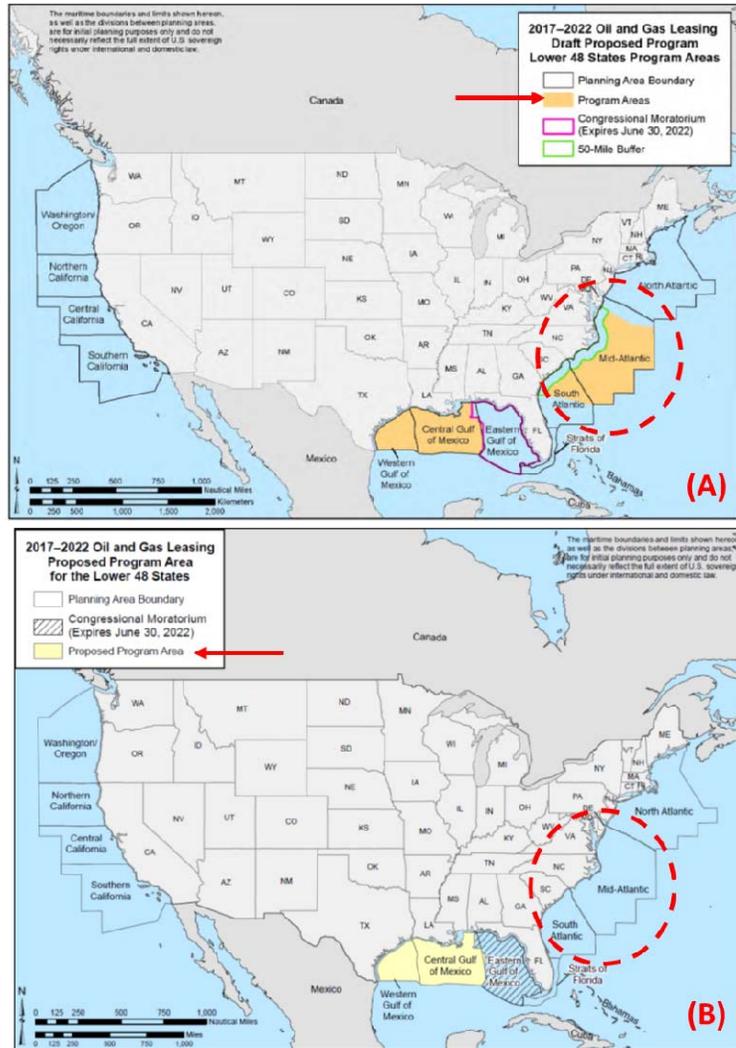
As presented to the *Island Review* magazine

### Update and Status Regarding Outer Continental Shelf (OCS) Oil and Gas Exploration

#### The Leasing Decision

By now you have likely heard the Atlantic has been removed entirely from the Proposed OCS Oil and Gas Leasing Program for 2017–2022. This was a Presidential Administration decision announced on March 15, 2016 via a joint press release by the Department of Interior and their subsidiary agency, the Bureau of Ocean Energy Management (BOEM). From a procedural standpoint, Section 18 of the OCS Lands Act requires the Secretary of the Interior to prepare and maintain a schedule of proposed OCS oil and gas lease sales determined to “best meet national energy needs for the 5-year period following its approval or re-approval.” Hence the 2017-2022 Leasing Program is intended to supersede the current 2012-17 Leasing Program.

The 2017-2022 Leasing Program was first released on January 29, 2015 and included a large swath of the OCS at least 50 miles offshore the coasts of Virginia, North Carolina, South Carolina, and Georgia. The March 2016 removal of the Atlantic OCS from consideration of the 2017-2022 Leasing Program was just a part of the evaluation process before the program is deemed as “finalized”. Figure 1 represents a side-by-side comparison of the 2017-2022 Draft Leasing Program when first released in January 2015 and the updated Draft released in March 2016.

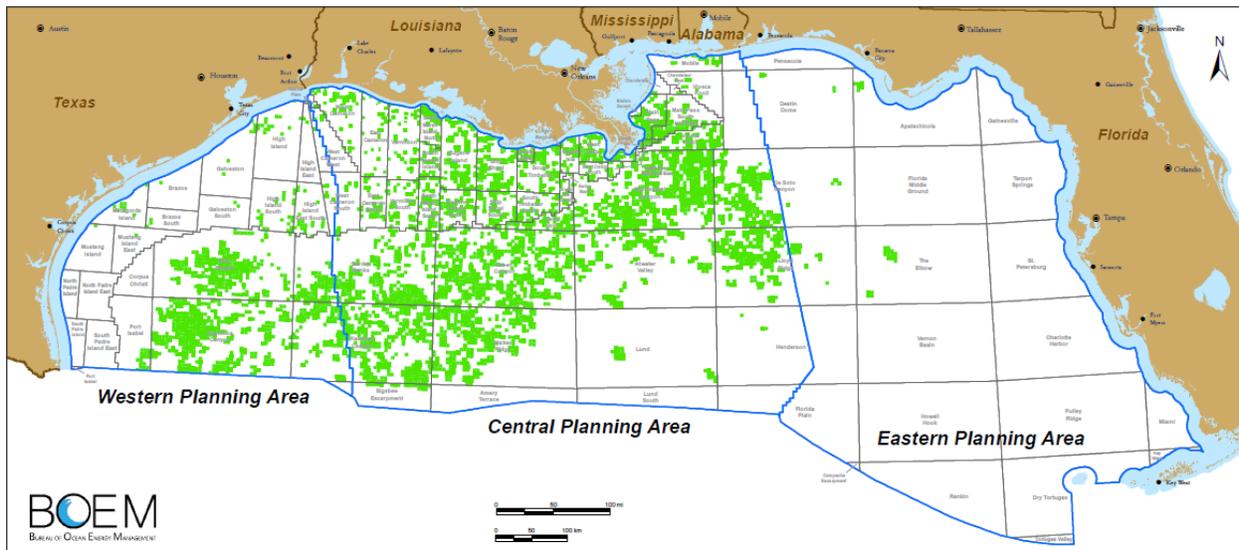


**Figure 1** – Maps from BOEM's 2017-2022 Draft Oil & Gas Leasing Program for the Lower 48 States. Panel (A) – January 29, 2015 with Atlantic OCS included in the Program. Panel (B) – March 15, 2016 with Atlantic OCS removed from the Program.

The huge swaths of OCS depicted in both of these maps for the Gulf of Mexico and the Atlantic are a touch misleading (to no fault of BOEM). Ultimately, 5-year leasing programs need to be approved (i.e., finalized) and each lease sale will go through a prelease evaluation and decision process considering reasonable alternative lease sale

configurations, reductions, and/or restrictions within that area. Leases are traditionally offered in blocks that are 9-square miles (3 miles on a side), so the final sales have a checkerboard type of appearance in map view representing the number of individual 9-square mile leasing blocks. Figure 2 is a map depicting the active leases in the Gulf of Mexico that should convey a mental image of the “checkerboard” mentioned immediately above – remember these leases have been sold, rented, and even developed over the course of many 5-Year Programs.

**BOEM Gulf of Mexico OCS Region  
Blocks and Active Leases by Planning Area  
March 1, 2016**



**Figure 2** – Map depicting active lease blocks in the Gulf of Mexico sold historically over the course of many historical 5-year Leasing Programs. It was envisioned that if the Atlantic OCS was included in the final 2017-2022 Leasing Program, then there could have been 1 or several individual 9-square mile blocks offered as part of the initial sale.

**Seismic Surveys**

Despite the Administration’s removal of the Atlantic OCS from the 2017-2022 Leasing program, oil and gas exploration is far from being “a done deal.” Preceding the issuance of the Draft 2017-2022 Leasing Program, BOEM worked with several companies in an effort to produce a Programmatic Environmental Impact Statement (EIS) enabling Geological and Geophysical work to progress in the Atlantic. A final Record of Decision was issued in 2014 and ideally the EIS would be the environmental document these companies could use to secure individual permits to conduct seismic surveying and other geophysical work (i.e., sediment sampling, gravity surveys, etc.).

Seismic surveying is akin to an “ultra sound” of the subsurface. The longer the wavelength, the deeper it can penetrate as the sound “bounces” off density differences in the subsurface (e.g. – a contact separating salt and an overlying sandstone). An airgun emits the sound in water, and is recorded back utilizing a series of hydrophones trailing the boat. On a cursory level, these surveys will be utilized to understand the geology of the OCS – all the way down to “the Moho” (the boundary between the Earth’s crust and the mantle). More practically speaking, the seismic surveys are used to identify discrete areas of petroleum hydrocarbon reservoirs which in turn; (A) Could aid BOEM with constraining any future proposed Atlantic lease areas and develop reasonable market price for the lease block(s), and (B) For the industry, the seismic surveys will go into their decision-making process concerning if the purchase of a lease and pursuit of an Exploration Plan is economically feasible. It is not uncommon for a single lease block to command

\$100,000,000s in the Gulf of Mexico. That does not include any annual rent payments, expenses involved with test wells, production, etc.

Entering summer of 2015 four seismic permit applications were submitted and subsequently received State consistency. However in July 2015 the National Marine Fisheries Service under the auspices of the Marine Mammal Protection Act issued a formal solicitation requesting additional information from the public (i.e., academia, scientists, etc.) regarding the impacts of seismic surveying to marine mammals to gain a better knowledge base to develop an Incidental Harassment Authorization. As a point of order, the National Marine Fisheries Service is a Line Office within the broader organization of NOAA (National Oceanic and Atmospheric Administration) who is an agency serving the U.S. Department of Commerce. In layman’s terms, this all means the seismic permits have not been issued for these four seismic surveying companies, or others. The accompanying table provides a permit status for all Geological & Geophysical Permits associated with oil/gas investigations along the Atlantic OCS.

Summary of Geological & Geophysical Permits for the Atlantic OCS (as of April 1, 2016)		
Applicant	Scope of Work	Status (bold = NC consistency)
TGS	2D Seismic	<b>#E14-001 - Pending</b>
GX Technology Corporation	2D Seismic, Gravity, & Magnetics	<b>#E14-003 - Pending</b>
WesternGeco LLC	2D Seismic	<i>#E14-004 - Pending</i>
CGG Services (US) Inc.	2D Seismic, Gravity, & Magnetics	<b>#E14-005 - Pending</b>
Spectrum Geo Inc.	2D Seismic, Gravity, & Magnetics	<b>#E14-006 - Pending</b>
PGS	3D Seismic & Gravity	<i>#E14-007 - Pending</i>
TDI-Brooks International, Inc.	Multibeam Bathymetry & Sub-bottom profiles	<i>#E14-010 - Pending</i>
NEOS GeoSolutions Inc.	Airborne Gravity Gradient & Magnetic Survey	<i>#E15-002 - Pending</i>
ARKeX Limited	Airborne Gravity Gradient & Magnetic Survey	<i>#E14-008 – Completed</i>
SeaBird Exploration Americas	2D Seismic, Gravity, & Magnetics	<i>#E14-002 - Withdrawn</i>
GX Technology Corporation	2D Seismic, Gravity, & Magnetics (Florida)	<i>#E15-001 - Withdrawn</i>
Spectrum Geo Inc.	2D Seismic, Gravity, & Magnetics	<i>#E14-009 - Withdrawn</i>

The Administration’s (Department of Interior/BOEM) decision to remove the Atlantic OCS from the 2017-2022 Leasing Program is narrowly confined to the leasing process itself – the seismic surveying application and permit process is therefore still “active”. This leaves us with a few unresolved issues;

**(1)** The permits need to be released for the seismic surveying to be conducted. Will the U.S. Department of Commerce/NOAA develop an Incidental Harassment Authorization and pave the way for the permits to be released? If yes, then when?

**(2)** With the Atlantic OCS removed from the 2017-2022 Leasing Program and the current state of the industry (large supply, low commodity prices, etc.); are oil and gas companies still interested in investing millions upon millions of dollars to obtain seismic reflection data?

**(3)** Lastly and tangentially related to number 2 immediately above; once the 2017-2022 Leasing Program is finalized, a new Presidential Administration will be responsible for developing the next Leasing Program (2022-2027). The first draft will likely be released in early 2020. Will the industry find any advantages in proceeding with seismic surveying in the Atlantic OCS before then to constrain discrete lease blocks in hopes of their inclusion in the 2022-2027 Leasing Program?

All to be determined...