Annual Progress Report on the Outer Continental Shelf (OCS) Oil and Gas Leasing Program 2012–2017

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Introduction

This is the first annual progress report on the Outer Continental Shelf (OCS) Oil and Gas Leasing Program 2012-2017 (Five Year Program). Information on the Five Year Program is available online at http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Five-Year-Program/2012-2017/Five-Year-Program.aspx.

The Secretary of the Interior (Secretary) published the Five Year Program in June 2012, and the Program became final on August 27, 2012, after the required 60-day congressional review period. Section 18(e) of the OCS Lands Act (Act) states that:

> [T]he Secretary shall review the leasing program approved under this section at least once each year. He [or she] may revise and reapprove such program, at any time, and such revision and reapproval, except in the case of a revision which is not significant, shall be in the same manner as originally developed.

Historically, the annual review has been an internal process in which the Bureau of Ocean Energy Management (BOEM) reports to the Secretary any information or events that might result in consideration of a revision to the Program. However, in the Proposed Final Program (PFP) Decision Document for the 2012-2017 Five Year Program (available by clicking on "Proposed Final Program Decision Document" at the above web address), the Department of the Interior (DOI) stated its commitment to "publish an annual progress report on the Five Year Program that includes an opportunity for stakeholders and the public to comment on the program's implementation." Pursuant to this commitment, this annual progress report provides the public an overview of the activities that have occurred during the previous year. Specifically, this report addresses the following:

- statistics of sales that have occurred in the previous year, including the number and location of lease blocks and the dollars collected on high bids;
- a tracking table of all relevant deferrals and mitigations;
- a summary of completed and ongoing safety and environmental studies;
- regulatory updates;
- a discussion of any significant new drilling activities;
- a summary of any significant incidents; and
- other relevant information.

Program Overview

The 2012-2017 Five Year Program advances a comprehensive national energy policy that includes a focus on expanding safe and responsible domestic oil and natural gas production. The Five Year Program includes 15 potential lease sales in six OCS planning areas – the Western and Central Gulf of Mexico (GOM), the portion of the Eastern GOM not currently under Congressional moratorium, and the Chukchi Sea, Beaufort Sea, and Cook Inlet planning areas offshore Alaska. These six planning areas were selected from BOEM's 26 OCS planning areas. The portion of each selected planning area that will be considered for leasing is designated as a program area. Maps A and B show the OCS planning areas and

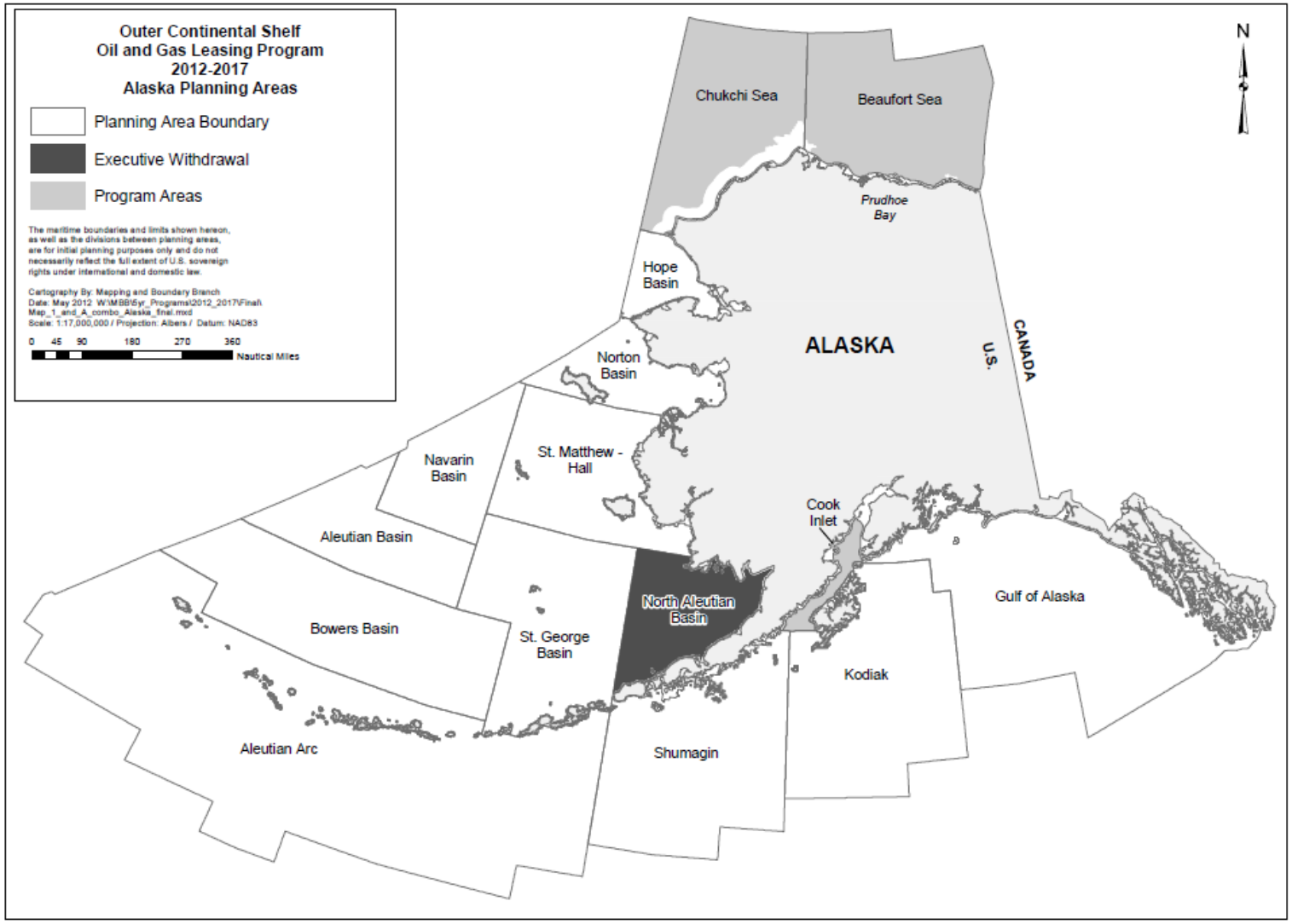
corresponding program areas proposed for leasing in the PFP. These planning areas include the richest and most promising areas for oil and gas exploration and development on the OCS, and together they include more than 75 percent of the total undiscovered, technically recoverable oil and natural gas resources estimated for the entire OCS.

Table 1, below, lists the timing of the proposed lease sales in each of the program areas. Completed sales, as of October 2013, are shaded in grey. Each sale is assigned a unique number, although sales might not occur in numerical order. More information on the numbering system, program area selection, and scheduling criteria is given in the PFP.

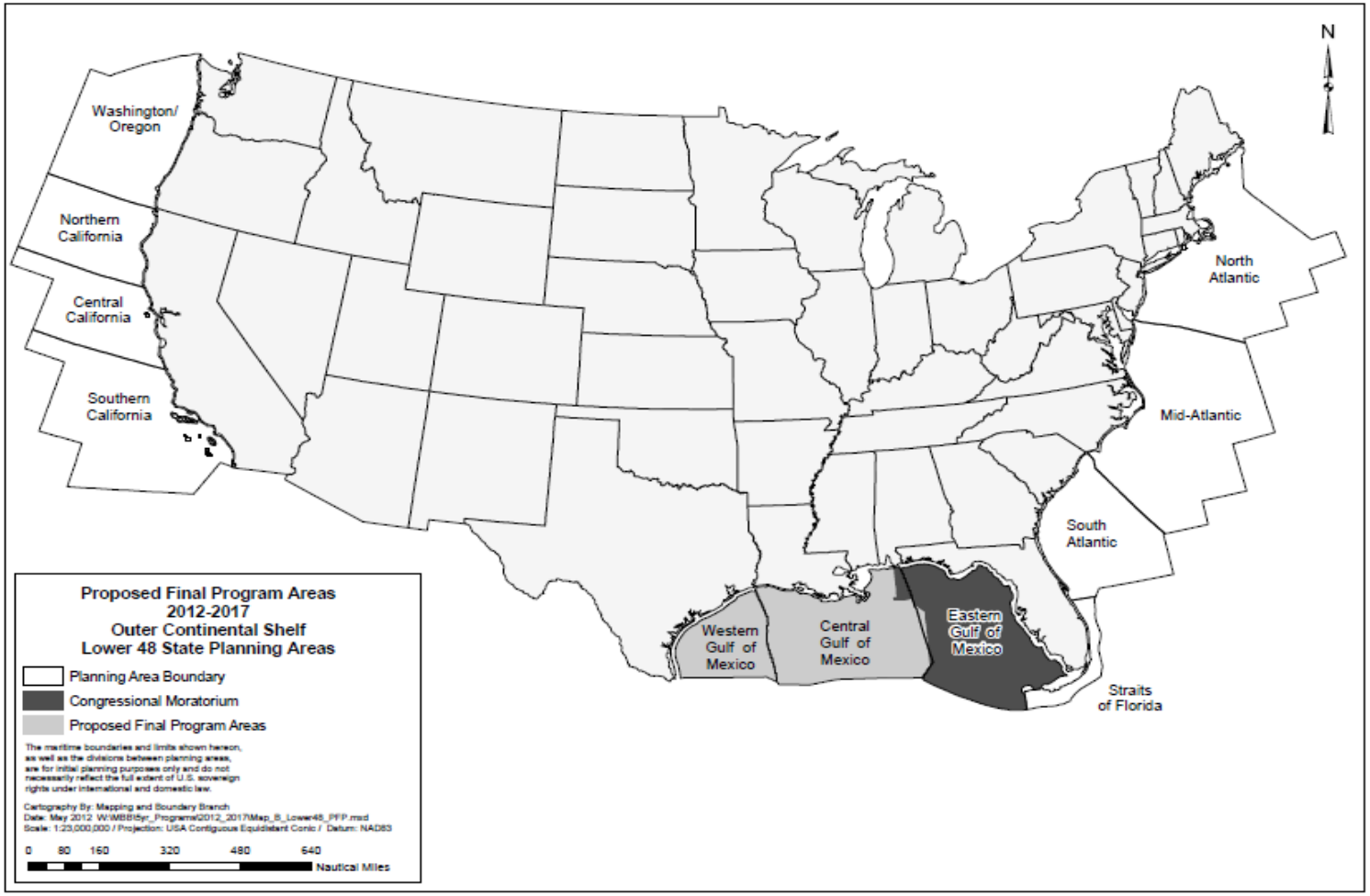
Table 1: Five Year Program Lease Sale Schedule

Sale No.*	Program Area	Year
229	Western Gulf of Mexico	2012
227	Central Gulf of Mexico	2013
233	Western Gulf of Mexico	2013
225	Eastern Gulf of Mexico	2014
231	Central Gulf of Mexico	2014
238	Western Gulf of Mexico	2014
235	Central Gulf of Mexico	2015
246	Western Gulf of Mexico	2015
226	Eastern Gulf of Mexico	2016
241	Central Gulf of Mexico	2016
237	Chukchi Sea	2016
248	Western Gulf of Mexico	2016
244	Cook Inlet	2016
247	Central Gulf of Mexico	2017
242	Beaufort Sea	2017

* Sales are not in numerical order for various reasons. Completed sales as of October 2013 are shaded in grey.



Map A: Alaska Program Areas



Map B: Gulf of Mexico Program Areas

Lease Sale Statistics

Completed Sales

Since approval of the Five Year Program, BOEM has held three lease sales.

Lease Sale 229 in the Western GOM was held on November 28, 2012. The sale offered 3,873 unleased blocks covering more than 20 million acres offshore Texas. In this sale, 13 companies submitted 131 bids totaling over $157 million on 116 lease blocks, covering 652,522 acres. A total of over $133 million was received in high bids, and after a two-phase postsale bid evaluation process under its bid adequacy procedures, BOEM determined that the value of each of the high bids was sufficient to provide the public with fair market value for the lease blocks. Of the 116 lease blocks receiving successful bids, 11 were in water depth less than 200 meters, 70 were in water depth 800 to 1600 meters, and 35 were in water depth greater than 1600 meters. Additional information and statistics on this sale are available at http://www.boem.gov/Sale-229.

Lease Sale 227 in the Central GOM was held on March 20, 2013. The sale offered 7,299 unleased blocks covering roughly 38.6 million acres, located from three to about 230 nautical miles offshore. The sale generated over $1.2 billion in high bids for 320 lease blocks covering 1.7 million acres. Following the two-phase postsale bid evaluation process, BOEM awarded 307 leases on blocks covering 1.65 million acres. Of the 320 lease blocks receiving bids, 85 were in water depth less than 200 meters, 7 were in water depth 200 to 400 meters, 19 were in water depth 400 to 800 meters, 78 were in water depth 800 to 1600 meters, and 131 were in water depth greater than 1600 meters. Additional information and statistics on this sale are available at http://www.boem.gov/Sale-227.

Lease Sale 233 in the Western GOM was held on August 28, 2013. The sale offered 3,864 unleased blocks covering roughly 20.7 million acres, located from nine to more than 250 nautical miles offshore. The sale generated over $102 million in high bids for 53 lease blocks covering over 301,000 acres. Of the 53 lease blocks receiving bids, 4 were in water depth less than 200 meters, 1 was in water depth 400 to 800 meters, 37 were in water depth 800 to 1600 meters, and 11 were in water depth greater than 1600 meters. Each bid will go through a strict evaluation process within BOEM to ensure the public receives fair market value before a lease is awarded. Additional information and statistics on this sale are available at http://www.boem.gov/Sale-233.

Upcoming Sales

BOEM is in various stages of the planning process for other lease sales scheduled in 2014-2017. Detailed information on lease sales and lease issuances can be found by following links on BOEM's Regional Leasing webpage at http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Regional-Leasing/Index.aspx.

Deferrals and Mitigations

BOEM has developed a tracking table to provide increased visibility into the consideration of comments and other input at each stage of the leasing process. This tracking table lists the alternatives, mitigations, temporal and spatial deferrals, and other areal concerns related to the 2012-2017 Five Year Program,

which the public identified to BOEM during the program development process. BOEM will continue to update the tracking table to reflect the status of these suggestions and include new suggestions that have been received since the approval of the Five Year Program. For example, BOEM has incorporated substantive comments related to important subsistence areas in the Arctic, which are being analyzed and organized for use in environmental analyses at the lease sale stage. The table can be found at http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Five-Year-Program/Lease-Sale-Schedule/Tracking-Table.aspx.

Safety and Environmental Studies

Safety Studies

The Bureau of Safety and Environmental Enforcement (BSEE) supports research associated with the continuous improvement of operational safety and pollution prevention through its Technology Evaluation and Development Program, which was formerly known as the Technology Assessment and Research Program. BSEE has refocused its technology evaluation studies to assess the use of Best Available and Safest Technology, to develop analysis tools that make it a more efficient and effective regulator, and to inform future development of regulations and policy. BSEE uses several vehicles to obtain needed information on materials, equipment, procedures and systems used by the offshore oil and gas industry to maintain safe and environmentally sound exploration and development of the Nation's offshore oil and gas resources. These include Interagency Agreements, Cooperative Agreements, Joint Industry Projects, and open competitive contracts. The types of information BSEE pursues includes:

- **Project 644 – Chukchi Sea (Ice Studies).** This project built a database of ice island and/or extreme ice feature motions, trajectories, and physical changes as they travel from the high Arctic into the Beaufort Sea. This information will allow a better determination of the risks associated with installing any structure in the Beaufort Sea in different locations. Results from this project will be compared with ice island and extreme ice feature information collected in the 1970's and 1980's. It was managed by Canatec Associates International, Ltd. And was completed in August 2012.
- **Project 689 – Production Verification Enhancement.** This project developed reference and computational tools to improve production verification practices on offshore oil and gas metering technologies. It was managed by the Southwest Research Institute and was completed in October 2012.
- **Project 694 – Guidance Work on Hydrotesting Deepwater Oil & Gas Pipelines.** This project helped develop and evaluate the Best Available and Safest Methodology to hydrotest deepwater pipelines and risers. It was managed by Stress Engineering and completed in January 2013.
- **Project 693 – Blowout Preventer (BOP) Maintenance and Inspection in Deepwater Operations.** This study compared current BOP maintenance, inspection, and testing practices to codes, standards, existing regulations, and industry recommended practices. Quantitative risk studies identified the criticality of individual subcomponents with the BOP system, the reliability of the individual component, and the complete BOP system. It was managed by ABS Consulting and completed in June 2013.

- **Project 713 – Assessment of BOP Stack Sequencing, Monitoring, and Kick Detection Technologies.** This project assessed potential improvements in BOP design, monitoring, stack configuration, acoustic actuation, and kick detection. It was managed by MCS Kenny and completed in June 2013.
- **Project 702 – 2011-2012 Freeze-up Study of the Alaskan Beaufort and Chukchi Seas.** This project helped understand the yearly Arctic freeze-up. Data collected via multiple concurrent years of study is proving to be extremely valuable for comparing and contrasting differences between yearly weather patterns and freeze-ups, along with identifying differences with historical data collected in the 1980's. It was managed by Coastal Frontiers, Inc and completed in August 2013.
- **Project 707 – Real-time Data Monitoring.** This project is an independent assessment of the various types of real-time data monitoring systems available for offshore oil and gas operations. The assessment focuses on drilling and production technologies and it includes a cost-benefit analysis detailing potential costs to industry, potential increases in safety performance, government resources needed for implementation, and necessary training. It is being managed by 838, Inc. and is estimated to be completed in October 2013.
- **Project 641 – Seawater Corrosion of Rope & Chain.** This project is designing an analytical tool, underpinned by field and test data, to estimate the design service life of steel wire mooring ropes and chains for particular site conditions. It is being managed by AMOG Consulting and is estimated to be completed in November 2013.
- **Project 664 – SafeBuck Phase III & Safebuck Geo.** This project is a series of reports and modeling studies to increase knowledge, and thereby reduce unnecessary conservatism in the design process and related limit states of deepwater pipeline design. Models will help support the formalization of the SAFEBUCK Design Guideline into an Industry Recommended Practice. It is being managed by OTM Consulting, Ltd. And is estimated to be completed in November 2013.
- **Project 599 – Tulsa University Hydrate Flow Performance Projects.** This research effort is divided into five sub-project areas: (i) Managing Hydrates in Late Field Life Situations; (ii) Under-inhibited Systems; (iii) High Pressure Jumper Design; (iv) Development of Techniques to Monitor Hydrates and/or Characterize Hydrate Slurries; and (v) Development of Simulation Tools. It is being managed by the University of Tulsa and is estimated to be completed in December 2013.
- **Project 695 – Slug Loading & Response in Pipeline.** This project is evaluating the current state of industry practice and technology gaps with respect to evaluating slugging effects on pipeline, spools, and risers. Research includes investigation of alternative methods and best practices guidelines for modeling and analysis. It is being managed by MCS Kenny and is estimated to be completed in December 2013.
- **Project 691 – Effects of H_2S & CO_2 in High Pressure/High Temperature (HP/HT) Wells on Tubulars and Cement.** This project is to improve our understanding of the impacts of the H_2S and CO_2 environment in HP/HT wells on oil and gas tubulars and cement. The research focuses on determining the capability of these materials to function properly in harsh environments, and the development or identification of better materials for HP/HT applications. It is being managed by the University of Oklahoma and is estimated to be completed in September 2014.
- **Project 616 – Tulsa University Drilling Research Studies.** This is an ongoing research effort by the University of Tulsa Drilling Research Projects, a government-industry consortium that

conducts drilling research to reduce the cost of drilling while ensuring the safety of drilling operations. It is being managed by the University of Tulsa.

Detailed descriptions of all BSEE Technical Evaluation and Development projects are found at http://www.bsee.gov/Operational-Safety-and-Engineering.aspx.

Environmental Studies

To help inform, among other things, lease sale decisions, BOEM draws on its own environmental studies, as well as from scientific information and literature produced by Federal, state, and local government and non-government organizations. BOEM's Division of Environmental Sciences also manages the Environmental Studies Program (ESP). The ESP develops, conducts, and oversees world-class scientific research specifically to inform policy decisions regarding development of OCS energy and mineral resources. Research covers physical oceanography, atmospheric sciences, biology, protected species, social sciences and economics, submerged cultural resources, and environmental fates and effects. BOEM is a leading contributor to the growing body of scientific knowledge about the nation's marine and coastal environment. Information on completed and ongoing BOEM studies is available at http://www.boem.gov/Studies/. Click on "Reports & Data Information" in order to view full electronic versions of completed ESP reports.

BOEM has highlighted a number of studies, including several BOEM studies, which have been completed since the approval of the Five Year Program. Bibliographic information on these relevant studies and literature is provided by OCS region below.

Studies Focused on Alaska Region Issues

- Alaska Department of Natural Resources. [Internet]. 2013. State of Alaska Five-Year Program of Proposed Oil & Gas Lease Sales. Division of Oil and Gas. January 2013.
- Bentzen, R.L. and A.N. Powell. 2012. Population Dynamics of King Eiders Breeding in Northern Alaska. The Journal of Wildlife Management 76(5):1011-1020.
- Bercha, F., R. Prentki, and C. Smith. 2012. Alaska OCS Oil Spill Occurrence Probabilities. Icetech 2012. Banff, Alberta Canada: Society of Naval Architects and Marine Engineers, September 17-20, 2012.
- Citta, J.J., L.T. Quakenbush, and B.D. Taras. 2013. Estimation of Calf:Cow Ratios of Pacific Walruses for Use in Population Modeling and Monitoring. Marine Mammal Science. Article first published online: 5 Feb 2013 | DOI: 10.1111/mms.12013. Early view (Online version of record published before inclusion in an issue).
- Citta, J.J., L.T. Quakenbush, J.C. George, R.J. Small, M.P. Heide-Jørgensen, H. Brower, B. Adams, and L. Brower. 2012. Winter Movements of Bowhead Whales (*Balaena mysticetus*) in the Bering Sea. Arctic 65(1):13-34.
- D.R. Salden and P.J. Clapham. 2012. First High-to Low-Latitude Match of an Eastern North Pacific Right Whale (*Eubalaena japonica*). Marine Mammal Science 28(4):E539-E544.
- Fan, X., J.R. Krieger, J. Zhang, and X. Zhang. 2013. Assimilating QuikSCAT Ocean Surface Winds with the Weather Research and Forecasting Model for Surface Wind-Field Simulation Over the Chukchi/Beaufort Seas. Boundary-Layer Meteorology. Early Online:1-20.
- Ferguson, M., J. Clarke, R. Shea, A. Brower, and C. Christman. 2013. Summer in the Western Beaufort Sea: Results from Aerial Surveys of Arctic Marine Mammals, July and August 2012. Poster Presentation, Alaska Marine Science Symposium, January 19-25, 2013.

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- Harwood, L.A., T.G. Smith, H. Melling, J. Alikamik, and M.C.S. Kingsley. 2012. Ringed Seals and Sea Ice in Canada's Western Arctic: Harvest-Based Monitoring 1992-2011. Arctic 65(4):377-390.
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- Heide-Jørgensen, M.P., K.L. Laidre, L.T. Quakenbush, and J.J. Citta. 2012. The Northwest Passage Opens for Bowhead Whales. Biology Letters 8(2):270-273.
- Hoguet, J., J.M. Keller, J.L. Reiner, J.R. Kucklick, C.E. Bryan, A.J. Moors, R.S. Pugh, and P.R. Becker. 2013. Spatial and Temporal Trends of Persistent Organic Pollutants and Mercury in Beluga Whales (*Delphinapterus leucas*) from Alaska. Science of the Total Environment 449:285-294.
- Kasper, J.L. and T.J. Weingartner. 2012. Modeling Winter Circulation Under Landfast Ice: The Interaction of Winds with Landfast Ice. Journal of Geophysical Research: Oceans 117(C4):-C04006.
- Krieger, J., J. Zhang, F. Liu, M. Shulski, and W. Tao. 2012. Regional Reanalysis Over the Beaufort and Chukchi Seas [Abstract]. San Francisco, CA: American Geophysical Union, December 3-7, 2012.
- Mahoney, A.R., H. Eicken, L.H. Shapiro, R. Gens, T. Heinrichs, F.J. Meyer, and A.G. Gaylord. 2012. Mapping and Characterization of Recurring Spring Leads and Landfast Ice in the Beaufort and Chukchi Seas. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Alaska Region, Anchorage, AK. OCS Report BOEM 2012-067. 179 pp. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5226.pdf)
- Naidu, A.S., A.L. Blanchard, D. Misra, J.H. Trefry, D.H. Dasher, J.J. Kelley, and M.I. Venkatesan. 2012. Historical Changes in Trace Metals and Hydrocarbons in Nearshore Sediments, Alaskan Beaufort Sea, Prior and Subsequent to Petroleum-Related Industrial Development: Part I. Trace Metals. Marine Pollution Bulletin 64(10):2177-2189.
- Neff, J.M. and G.S. Durell. 2012. Bioaccumulation of Petroleum Hydrocarbons in Arctic Amphipods in the Oil Development Area of the Alaskan Beaufort Sea. Integrated Environmental Assessment & Management 8(2):301-319.
- Quakenbush, L., J. Citta, J.C. George, M.P. Heide-Jørgensen, R. Small, H. Brower, L. Harwood, B. Adams, L. Brower, G. Tagarook, C. Pokiak, and J. Pokiak. 2012. Seasonal Movements of the Bering-Chukchi-Beaufort Stock of Bowhead Whales: 2006- 2011 Satellite Telemetry Results. Panama City, Panama: International Whaling Commission, June 2012.
- Reeves R., C. Rosa, J.C. George, G. Sheffield, and M. Moore. 2012. Implications of Arctic Industrial Growth and Strategies to Mitigate Future Vessel and Fishing Gear Impacts on Bowhead Whales. Marine Policy 36(2012):454–462.
- Rone, B.K., C.L. Berchok, J.L. Crance, and P.J. Clapham. 2012. Using Air-deployed Passive Sonobuoys to Detect and Locate Critically Endangered North Pacific Right Whales. Marine Mammal Science 28(4):E528-E538.

- Schmutz, J.A. 2012. Monitoring of Marine Birds of Concern in the Northeastern Chukchi Sea (Loons). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Alaska Region, Anchorage, AK. OCS Report BOEM 2012-078. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5237.pdf)
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- Weingartner, T.J., P. Winsor, R.A. Potter, H. Statscewich, and E.L. Dobbins. 2012. Application of High Frequency Radar to Potential Hydrocarbon Development Areas in the Northeast Chukchi Sea. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Alaska Region, Anchorage, AK. OCS Report BOEM 2012-079. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5266.pdf)
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Studies Focused on Gulf of Mexico Region Issues

- Allan S.E., B.W. Smith, and K.A. Anderson. 2012. Impact of the *Deepwater Horizon* Oil Spill on Bioavailable Polycyclic Aromatic Hydrocarbons in Gulf of Mexico Coastal Waters. Environmental Science & Technology 46(4):2033-9.
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- Hetland, R.D, K. Fennel, C.K. Harris, J. Kaihatu, K. Xu, and S.F. DiMarco. 2012. Integrated Bio-physical Modeling of Louisiana-Texas (LATEX) Shelf. U.S. Dept. of the Interior, Bureau of Ocean Energy Management Gulf of Mexico OCS Region, New Orleans, LA. OCS Report BOEM 2012-108, 128 pp. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5253.pdf)
- Ji, Z.-G., W.R. Johnson, Z. Li, R.E. Green, S.E. O'Reilly, and M.P. Gravois. 2012. Oil Spill Risk Analysis: Gulf of Mexico Outer Continental Shelf (OCS) Lease Sales, Central and Western Planning Areas, 2012-2017, and Gulfwide OCS Program, 2012-2051. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Environmental Division, Herndon, VA. OCS Report BOEM 2012-066. (http://www.boem.gov/uploadedFiles/BOEM/Environmental_Stewardship/Environmental_Assessment/Oil_Spill_Modeling/2012-066-BOEM-OCS-Report.pdf)
- Kaiser, M.J., B. Snyder, and A.G. Pulsipher. 2013. Offshore Drilling Industry and Rig Construction Market in the Gulf of Mexico. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Report BOEM 2013 0112. 375 pp. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5245.pdf)
- Oey, L.-Y. and P. Hamilton. 2012. Ultra-deepwater Circulation Processes in the Gulf of Mexico. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Report BOEM 2012-004. 72 pp. (http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5247.pdf)
- U.S. Dept. of the Interior. Geological Survey. 2012. Coastal Change Hazards: Hurricanes and Extreme Storms; Hurricane Isaac; Pre- and Post-storm Comparisons – Chandeleur Islands, Louisiana and Dauphin Island, Alabama. U.S. Dept. of the Interior, Geological Survey, St. Petersburg Coastal and Marine Science Center, St. Petersburg, FL. (http://coastal.er.usgs.gov/hurricanes/isaac/photo-comparisons/index.php)
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- White, H.K., P. Hsing, W. Cho, T.M. Shank, E.E. Cordes, A.M. Quattrini, R.K. Nelson, R. Camilli, A.W.J. Demopoulos, C.R. German, J.M. Brooks, H.H. Roberts, W. Shedd, C.M. Reddy, and C.R. Fisher. 2012. Impact of the *Deepwater Horizon* Oil Spill on a Deep-water Coral Community in the Gulf of Mexico. Proceedings of the National Academy of Sciences of the United States of America, PNAS Early Edition, Special Feature, March 27, 2012.

For more information on the scientific literature BOEM uses to inform lease sale decisions, refer to lease sale environmental analyses (http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/Index.aspx). In addition, several studies are being conducted in support of the Natural Resource Damage Assessment (NRDA) following the *Deepwater Horizon* explosion, oil spill, and response in the GOM (http://www.gulfspillrestoration.noaa.gov/). Most of the NRDA studies have not yet been completed or released. BOEM has reviewed and will continue to review the latest scientific literature as part of environmental evaluations for all lease sale decisions.

Regulatory Updates

Detailed information on BOEM's regulations can be found at http://www.boem.gov/Regulations/index.aspx. BOEM has not published any new or updated regulations since approval of the Five Year Program. BSEE has issued two rules and proposed a third related to OCS oil and gas operations:

- **The Final Rule on "Oil and Gas and Sulphur Operations on the OCS—Increased Safety Measures for Energy Development on the OCS"** was published on August 22, 2012, and became effective on October 22, 2012. This rule, known as the Final Drilling Safety Rule, implements certain safety measures recommended in the report, "Increased Safety Measures for Energy Development on the [OCS]" (Safety Measures Report) submitted to President Obama by the DOI on May 27, 2010. The rule amends drilling, well-completion, well-workover, and decommissioning regulations related to well-control, including: subsea and surface blowout preventers, well casing and cementing, secondary intervention, unplanned disconnects, recordkeeping, and well plugging. More information is available at http://www.bsee.gov/Regulations-and-Guidance/Recently-Finalized-Rules/Final-Drilling-Safety-Rule/index.aspx.
- **The Final Rule on "Oil and Gas and Sulphur Operations in the OCS—Revisions to Safety and Environmental Management Systems"** was published on April 5, 2013, and became effective on June 4, 2013. This rule, known as the SEMS II Final Rule, revises and adds several new requirements to regulations for Safety and Environmental Management Systems (SEMS). SEMS is a nontraditional, performance-focused tool for integrating and managing offshore operations. The purpose of SEMS is to enhance the safety of operations by reducing the frequency and severity of accidents. The SEMS II final rule enhances the original SEMS rule by supplementing operators' SEMS programs with employee training, empowering field level personnel with safety management decisions and strengthening auditing procedures by requiring them to be completed by independent third parties. More information is available at http://www.bsee.gov/Regulations-and-Guidance/Safety-and-Environmental-Management-Systems---SEMS/Safety-and-Environmental-Management-Systems---SEMS.aspx.
- **The Proposed Rule on "Oil and Gas and Sulphur Operations on the Outer Continental Shelf — Oil and Gas Production Safety Systems"** was published on August 22, 2013. This proposed rule, known as the Production Safety Rule, will revise 30 CFR 250 subpart H, Oil and Gas Production Safety Systems, to address recent technological advances. The proposed rule will address recent technological advances involving production safety systems, subsurface safety devices, safety device testing, and life cycle analysis of critical safety equipment. More information is available at http://www.bsee.gov/uploadedFiles/BSEE/BSEE_Newsroom/BSEE_Fact_Sheet/Subpart%20H%20Fact%20Sheet.pdf.

Significant New Activities

Arctic

In the Arctic, Shell initiated a long-planned exploratory drilling program in the Beaufort and Chukchi Seas between July and October 2012. Shell completed and temporarily abandoned two "top-hole" sections, one at the Burger prospect well site in the Chukchi Sea and one at the Sivulliq prospect in the Beaufort Sea. Shell was not allowed to drill into the hydrocarbon-bearing zones at either location because the company was not able to certify or deploy its specialized Arctic Containment System, which was

required to be on site in the event of loss of well control. Although Shell successfully implemented elements of its drilling program, the company experienced a number of problems and regulatory violations, including the grounding of the *Kulluk* drill ship near Kodiak, Alaska.

As a result of Shell's difficulties, then-Secretary of the Interior Salazar ordered a comprehensive review of Shell's 2012 offshore Alaska drilling program. The review documented and analyzed the problems and accomplishments of the drilling program. The report recommended that Shell make two affirmative showings before it be allowed to resume its Alaska drilling program. First, Shell should submit to DOI a comprehensive integrated plan that describes the complete future drilling program and related operations. Second, Shell should commission and complete a full third-party audit of its management systems. The full report, with detailed recommendations, can be found at http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf. Shell has announced an indefinite "pause" in its drilling program, at least through 2013, and will undertake only ancillary activities during 2013. Other companies with lease rights have recently announced their intensions to commence exploratory drilling at later dates.

BOEM and BSEE are incorporating lessons from the Shell 2012 exploration drilling program into proposed rules, which currently are under development, governing exploration, development, and production activities in the Alaska OCS Region. As part of the initial rulemaking effort, BOEM Director and Acting Assistant Secretary for Land and Minerals, Tommy Beaudreau, along with BOEM and BSEE staff, held a series of listening sessions in Alaska in June 2013. The purpose of these listening sessions was to engage industry, state and local government, tribes, and interested stakeholders on the new rulemaking efforts. Areas addressed by the new rulemaking may include, but are not be limited to: well control and subsea containment, relief well capability, contractor oversight, integrated operations and emergency plans, and resource sharing among companies working in Alaska. BOEM also will consider lessons from the Shell review as it transitions from areawide leasing to targeted leasing in Alaska, and in consideration of areas that should be excluded from leasing or offered under special conditions. As stated in the PFP, "BOEM will carefully consider specific subsets of the broader planning area that have the most promising oil and natural gas resource potential based on…information developed through any exploration under existing leases from previous sales."

Atlantic

While there are no lease sales scheduled in the Atlantic in the 2012-2017 Five Year Program, the PFP states that "BOEM is proceeding with a region-specific strategy to support future decision-making regarding whether, and if so where, potential offshore oil and gas lease sales in the Mid- and South Atlantic Planning Areas would be appropriate." In working toward the goal of supporting future decision making, BOEM is continuing work to finalize a Programmatic Environmental Impact Statement (EIS) relating to geologic and geophysical surveys in the Mid- and South Atlantic Planning Areas. The EIS will facilitate decision making regarding new, responsible resource evaluation in areas where current estimates are based on older data collected in the 1970's and 1980's.

Additionally, BOEM continues to work with the Department of Defense on complex issues relating to potential use conflicts in certain Atlantic OCS areas. On January 9, 2013, BOEM and the Department of Defense signed a charter creating the Interagency Working Group on South and Mid-Atlantic OCS Planning Areas Spatial Conflict Minimization, and the Interagency Working Group on Passive Acoustic

Monitoring in U.S. Atlantic OCS Waters. These groups will continue to work to minimize potential conflicts in these areas when and if seismic surveying activities are approved.

Gulf of Mexico

The Gulf of Mexico continues to experience successes in oil and gas exploration and development. Since June 2012, operators have announced nine new discoveries, all located in the Central Planning Area, in lease blocks belonging to Mississippi Canyon, Green Canyon, Garden Banks, Walker Ridge, and Sigsbee Escarpment protraction areas. A few notable developments include Shell's recent announcement that it is moving forward with the Stones development project in the subsalt Lower Tertiary Trend about 200 miles offshore Louisiana. The project is located in Walker Ridge Block 508 in greater than 9,000 feet of water. Shell also expanded production from its Mars field in Mississippi Canyon Block 806 about 130 miles off Louisiana. Shell announced its installation of the Olympus tension leg platform, with first production expected in 2015. The facility is expected to process 100,000 barrels of oil equivalent per day at peak production. Shell also announced exploration successes at its "Vito" prospect at Mississippi Canyon Block 984 and its deepwater Norphlet prospect encompassing blocks in Mississippi Canyon and Desoto Canyon. The Norphlet prospect is targeting deposits 25,000 feet below the seabed in greater than 7,000 feet of water.

Operator ExxonMobil (with partner Statoil) is beginning a newly sanctioned $4 billion development project at the 2007 Julia discovery in the subsalt Lower Tertiary Trend. The field is located more than 200 miles offshore Louisiana at Walker Ridge Blocks 540, 583, 584, 627, and 628. Wells will target deposits 30,000 feet below the seabed in over than 7,000 feet of water, with recoverable reserves estimated at over 600 million barrels of oil. In addition, Noble Energy and its partners have confirmed the presence of oil at their Gunflint project at Mississippi Canyon Block 992, where drilling occurred to a subsea depth greater than 30,000 feet in 6,100 feet of water.

Significant Incidents

The OCSLA requires that the Department of the Interior conduct an investigation and issue a report on deaths, serious injuries, fires, and pollution events that occur as the result of offshore oil and gas operations. BSEE incident investigations seek to determine the root cause or causes of an incident. Offshore operators are required by law (30 CFR 250.188) to immediately notify BSEE of the following types of incidents: fatalities; injuries that require evacuation of the injured person; loss of well control; fires and explosions; collisions that result in property or equipment damage of more than $25,000; incidents involving structural damage to an OCS facility; incidents involving crane operations; and incidents involving damage to safety systems and equipment.

For many incidents, BSEE's investigation will include the collection of evidence and the interview of personnel involved. When a panel investigation is likely, BSEE will issue evidence preservation orders to all companies involved in the incident and, after ongoing safety concerns have been addressed, will take steps to preserve the incident scene for investigation. BSEE coordinates closely with the U.S. Coast Guard (USCG) and other federal and state agencies to determine how to effectively and efficiently respond to the incident and to determine which agency will be the primary investigator.

The primary goal of every BSEE incident investigation is to determine what happened to cause an incident so that the agency can act to minimize the likelihood that a similar incident will occur in the future. "Safety at all levels at all times" can be achieved only when BSEE and industry have a clear understanding of how companies should act to prevent offshore incidents.

The most significant incident since approval of the Five Year Program, in terms of loss of life and national press attention, was a November 18, 2012, explosion and fire aboard a production platform operated by Black Elk Energy, approximately 18 miles southeast of Grand Isle, Louisiana. The explosion occurred during pipe-welding operations and resulted in three fatalities. Following the incident, BSEE notified Black Elk Energy that the company must take immediate steps to improve its safety performance on the U.S. Outer Continental Shelf. BSEE also has initiated an ongoing panel investigation of the incident. More information is available at http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Platform-Fire-Investigation/Black-Elk-Platform-Explosion---Fire.aspx.

BSEE has worked in conjunction with the USCG and industry to respond to several publicized loss of well control incidents. The most recent was the response to a natural gas blowout and fire on board the *Hercules 265* jackup drilling rig, located approximately 55 miles offshore Louisiana in 154 feet of water. On the morning of July 23, 2013, Walter Oil and Gas Corporation experienced a loss of control of Well A-3 from an unmanned platform while doing completion work on the sidetrack well to prepare the well for production. The operator reported the safe evacuation of 44 personnel from the nearby *Hercules 265* jackup drilling rig. BSEE continues to review all plans and procedures to secure the well permanently. On July 27, BSEE approved a permit application from Walter to drill a relief well, which will intercept the existing well and allow the operator to inject mud and drilling cement to permanently seal the wellbore. BSEE continues to provide updates at http://www.bsee.gov/BSEE-Newsroom/index.aspx.

BSEE also oversaw the response by Energy Resource Technology, LLC, to a July 9, 2013, loss of control from a natural gas well located 74 miles southwest of Port Fourchon, Louisiana, in 146 feet of water. Energy Resource Technology stopped the flow of natural gas on July 11, 2013, by pumping drilling fluids into the well, and then sealed the well using a temporary bridge plug to isolate the lower part of the well. BSEE continues to review and approve remaining work needed to permanently plug and abandon the well. More information is available at http://www.bsee.gov/BSEE-Newsroom/BSEE-News-Briefs/2013/BSEE-Confirms-Well-Sealed-With-Temporary-Plug.aspx.

More information on BSEE incident investigations is available at http://www.bsee.gov/Inspection-and-Enforcement/Accidents-and-Incidents/Incident-Investigations.aspx.

Other Relevant Information

National Policy Initiatives

On April 16, 2013, the Administration released the *National Ocean Policy Implementation Plan* (*Implementation Plan*). Developed by the National Ocean Council, the *Implementation Plan* presents specific actions that Federal agencies will take to bolster the ocean economy, improve ocean health, support local communities, strengthen security, and provide better science and information to improve decision making. The *Implementation Plan* supports voluntary regional marine planning, which brings together ocean users to share information to plan how the nation uses and sustains ocean resources.

Neither the National Ocean Policy nor marine planning creates or changes regulations or authorities, but they may provide BOEM and other Federal agencies with opportunities to increase efficiencies in decision making. The *Implementation Plan* and accompanying fact sheets are available at http://www.whitehouse.gov/administration/eop/oceans/policy.

On May 10, 2013, the Administration released the *National Strategy for the Arctic Region* (*Strategy*). The *Strategy* sets forth the U.S. Government's strategic priorities for the Arctic region. The document defines U.S. national security interests in the Arctic region and identifies prioritized lines of effort, building upon existing initiatives by Federal, state, local, and tribal authorities, the private sector, and international partners, and it aims to focus efforts where opportunities exist and action is needed. Under the first line of effort, "Advance United States Security Interests," the *Strategy* reaffirms the importance of responsibly developing Arctic oil and gas resources. The complete *Strategy* is available at http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

Safety Initiatives

BSEE continues to develop and test deepwater well containment and spill response capabilities that are critical to the safe and responsible development of offshore resources. For example, on February 6, 2013, BSEE conducted an unannounced oil-spill response exercise to test oil and gas operator W&T Offshore's ability to deploy equipment, such as its 95-foot fast response vessel *Breton Island*, establish communications, and respond to an oil spill. During the exercise, BSEE supervised operation of the Incident Command Post in Slidell, Louisiana, and observed the deployment of spill-response equipment. More information is available at http://www.bsee.gov/BSEE-Newsroom/BSEE-News-Briefs/2013/BSEE-Tests-Operators.aspx.

On May 7, 2013, BSEE; Noble Energy, Inc.; and the Helix Well Containment Group (HWCG) announced the successful completion of a full-scale deployment of critical well control equipment to assess Noble Energy's ability to respond to a potential subsea blowout in the deepwater GOM. The previous year a similar excise was conducted utilizing the Marine Well Containment Company. The unannounced deployment drill, undertaken at the direction of BSEE, began on April 30, 2013, to test the HWCG capping stack system – a piece of equipment similar to the one that stopped the flow of oil from the Macondo well following the *Deepwater Horizon* explosion, oil spill, and response in 2010. During this exercise, the capping stack was deployed in more than 5,000 feet of water in the GOM. Once on site, the system was lowered to a simulated well head on the ocean floor, connected to the well head, and pressurized to 8,400 pounds per square inch. More information on the exercise is available at http://www.bsee.gov/BSEE-Newsroom/Press-releases/2013/Press05072013.aspx.

On May 9, 2013, BSEE and the USCG signed a new Memorandum of Agreement (MOA) that will strengthen the working relationship between the two agencies on the management of safety and environmental protection responsibilities on the OCS. BSEE and the USCG will use this agreement to establish a process for the identification of offshore safety and environmental management requirements within the jurisdiction of both agencies and to spur the development of joint policies and guidance. The MOA also provides a mechanism to ensure that all future regulations, policies, and guidance are enforced consistently by both agencies. More information is available at http://www.bsee.gov/BSEE-Newsroom/Press-Releases/2013/Press05092013(1).aspx.

On August 16, 2013, BSEE and the Department of Transportation's Bureau of Transportation Statistics (BTS) signed an interagency agreement to develop a confidential near miss reporting system for use on the Outer Continental Shelf. The system will expand the ability of BSEE and industry to capture essential information about accident precursors and potential hazards associated with offshore operations. The system will have voluntary reporting by both industry and Federal personnel, and will ensure confidentiality for those individuals who report near misses. The BTS will be responsible for developing and managing the reporting system, which is expected to be operational in 2014. On August 22, 2013, BSEE and the Department of Energy signed a Memorandum of Collaboration that will coordinate the ongoing efforts of the two agencies on offshore research and technological improvement projects. The agencies will continue to collaborate in support of three primary objectives: building safety through technological improvements; supporting research and development for offshore operations; and working together to support the implementation of recommendations arising from various investigations and studies related to the *Deepwater Horizon* tragedy. More information is available at: http://www.bsee.gov/BSEE-Newsroom/Press-Releases/2013/Press08232013z.aspx.

Summary

This report provides an overview of activities since the approval of the Five Year Program. After the public comment period, BOEM will submit the report, with a summary of comments received, to the Secretary.