BOEM ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

BOEM OCS Region: Gulf of Mexico

Planning Area: Central and Western

Title: The Offshore Drilling Industry and Rig Construction Market in the Gulf of Mexico (GM-92-42-141)

Total Cost: $268,282.00 **Period of Performance:** FY 2009-2011

Conducting Organization: Coastal Marine Institute, Louisiana State University

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Description:
Background: The offshore drilling market is dynamic, highly competitive, and regionally-specific. Market activity depends on the level of oil and gas exploration, development and production worldwide. In the U.S., exploration and production is carried out by private oil companies which have relatively few government restrictions on their activity, except for the ban on exploration and production in certain offshore regions. In most other parts of the world, especially areas with significant proved reserves, oil production is more closely controlled by state oil companies or the government through licenses. Broadly speaking, the offshore industry is comprised of the deepwater and shallow water drilling markets. Each market is divided into smaller submarkets based on the type of drilling rig, region, water depth capability, and other technical specifications. The market segments are affected by common characteristics and conditions specific to each segment.

Offshore drilling activity has historically been cyclical, with oil and gas prices playing a key role in driving the market through supply and demand fundamentals. Demand for rigs is directly related to the regional and worldwide levels of exploration and development expenditures. The level of spending may be influenced by oil and natural gas prices, expected changes in prices, regional and global economic conditions, political, social and legislative environments, technological advancements, and factors such as credit availability. Military, political and economic events throughout the world contribute to price volatility and will continue to do so in the future.

Rig construction has a significant economic and social impact on local communities, having a direct impact on engineering firms, shipyards, equipment suppliers, and labor markets through direct and indirect ancillary employment; local, regional and federal

taxation; and increased demand for capital and consumer goods (The Louis Berger Group, Inc. 2004). An estimate of the total value of the newbuild market is at over $35 billion (jackups: $9 billion, semisubmersibles: $18 billion, drillships: $10 billion). The GOM jackup market estimate is at $2 billion. Keppel AmFELS is building seven rigs in Brownsville, Texas and LeTourneau is building three rigs in Vicksburg, Mississippi. Using the standard industry multiplier of 2-2.5, the extent of the economic benefits to the Gulf Coast region is significant and deserving of additional study.

Objectives:

- Examine general aspects of the rig market and construction industry
- Provide information of general interest and practical use
- Create an analytic framework to address issues of specific concern to the BOEM

Methods:

1. Prepare two survey chapters covering the general characteristics of the offshore drilling industry and rig construction market, discussing the types of rigs that are used in offshore drilling, industry characteristics, and the factors that influence business activity and the environment.
2. Prepare a general description of rig construction and the steps and material/labor requirements involved throughout the process, from engineering design through commissioning.
3. Provide an empirical assessment and description of rig activity, utilization, and dayrates in the GOM, and quantify market indicators of other offshore basins, such as the North Sea and Australia.
4. Develop replacement cost models and financial exposure estimates for the drilling rig inventory in the GOM.
5. Examine the capacity and operation of the rig construction industry in the GOM, including labor and material expenditures, man hours worked, and relevant trends.

Products: A final report publication with annotated references.

Importance to BOEM: BOEM has no comprehensive study on the rig construction and offshore drilling industry. This study will provide important information of general and practical interest and will create an analytic framework to address issues of specific concern to the BOEM. The end product will facilitate a better understanding of the offshore drilling industry and rig construction markets, from the general design and fabrication process to material and labor requirements along with the associated empirical issues related to rig market indicators, rig replacement cost estimation and labor/material expenditures, construction statistics and trends across the Gulf Coast.

Current Status: A draft report has been submitted to BOEM for review. A No Cost Extension has been requested to allow sufficient time for revisions, review of the final report and BOEM processing.

Final Report Due:	December 2011
Publications:	None
Affiliated WWW Sites:	None
Revised date:	January 2012
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