

STUDY TITLE: Economic Impact of Fishing and Diving Associated with Offshore Oil and Gas Structure

REPORT TITLE: Economic Impact of Recreational Fishing and Diving Associated with Offshore Oil and Gas Structures in the Gulf of Mexico

CONTRACT NUMBER: 1435-01-97-CT-30868

SPONSORING OCS REGION: Gulf of Mexico OCS Region

APPLICABLE PLANNING AREA: Gulf of Mexico

FISCAL YEARS OF PROJECT FUNDING: 1997, 1998

COMPLETION DATE OF REPORT: February 2001

COSTS: FY 1997: \$100,000 FY 1998: \$198,958: CUMULATIVE PROJECT COST: 298,958

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KEY WORDS: Recreational Fishing, Recreational Diving, Economic Impact

BACKGROUND: There are more than 5,000 oil and gas structures located in state and federal waters in the Gulf of Mexico, primarily in Louisiana and Texas waters and on the adjoining outer continental shelf. More than 100 older structures are being removed annually, and the Minerals Management Service expects that these numbers will continue to decline. Because oil and gas structures provide shelter and, indirectly, contribute food for benthic, demersal, and pelagic fish, the behavior of Gulf of Mexico fishermen and divers has been influenced by their presence. A study conducted in the 1980s, for example, found that oil and gas structures were used by 70 percent of Louisiana fishermen. In order to guide decision-making about the removal of older structures, the Minerals Management Service needs current information on the extent of recreational use of offshore structures and the economic impact associated with that use.

OBJECTIVES: There were three study objectives addressed by this research. First, QuanTech was asked to assess the recreational demand for fishing and diving associated with offshore oil and gas-related structures and with artificial reefs resulting from the "rigs to reef" programs in Texas, Louisiana, Mississippi and Alabama. Secondly, the study was to assess the economic impacts resulting from this recreational demand on the economies of Texas, Louisiana, Mississippi, and Alabama. Finally, an

objective was to analyze the incremental expenses associated with recreational fishing and diving that would not have been incurred if anglers had no offshore structure fishing or diving opportunities.

DESCRIPTION: The data collection methodology for meeting these objectives of the project combined in-person interviewing of recreational fishermen and divers in the field with follow-up telephone interviewing. The field interviews were used to estimate the proportion of fishing and diving trips taken near Gulf of Mexico oil and gas structures or artificial reefs created from such structures. The follow-up telephone interviews were used to estimate trip-related costs and capital expenditures associated with recreational fishing and diving. An independent survey of charter boat operators, party boat operators, and dive shops was used to obtain subjective estimates of the importance of oil and gas structures to recreational fishing and diving in the Gulf. A total of 10,475 interviews were obtained in the field with private boat fishermen, charter boat fishermen, party boat fishermen, and recreational divers. A total of 2,724 telephone follow-up interviews were conducted with these fishers and divers to obtain the required expenditures information. In addition, 60 telephone interviews were conducted with charter boat operators and owners/managers of dive shops across the region.

SIGNIFICANT CONCLUSIONS: This study confirmed that there is substantial recreational activity associated with the presence of oil and gas structures in the Gulf of Mexico from Alabama through Texas and these activities have a substantial economic impact. Because the presence of oil and gas structures is important to recreational fishing and diving, consideration should be given to assuring the continued availability of at least some of these structures across the range of the Gulf Coast area, even after they are no longer used for oil or gas extraction. Decisions on structure removal must take into account the effects on recreational activities and the economic value they represent. It is noted that the process by which fishermen and divers select the specific oil and gas structures to visit is not well understood. Both the incremental value which was established in this research and the fact that fishermen and divers visit multiple structures on each trip suggest that there is a decision process which underlies the selection of particular structures for recreational activities. If a decision about removal of a specific structure is being considered, it would be extremely useful to have in hand a set of variables which are known to be associated with structure recreational usage. Decision-making processes for structure removal should include consideration of the needs of recreational fishermen and divers. Moreover, fishing and diving interests across the Gulf should be kept informed about the processes of structure removal and given opportunity to participate in such decisions.

STUDY RESULTS: The proportion of trips taken within 300 feet of oil or gas structures ranged from 20.2 percent for private boats to 50.9 percent for party boats. Among divers interviewed, 93.6 percent of the trips were within 300 feet of an oil or gas structure. Of the 4.5 million recreational fishing trips estimated in the Gulf States from Alabama through Texas in 1999, 21.9 percent of them were within 300 feet of an oil or gas structure. Of the 83,780 estimated diving trips, 93.6 percent were within 300 feet of such a structure. The survey accounted for a total of \$172.9 million in trip-related costs for fishing and diving near oil and gas structures in the Gulf States from Alabama through Texas. Of this number, \$13.2 million were trip expenditures for diving with the

balance of \$159.7 million associated with trip expenses for recreational fishing. The survey accounted for a total of \$640.0 million in equipment costs associated with recreational fishing and diving activities by those who visited oil or gas structures in the Gulf states from Alabama through Texas during the survey year. Of this number, \$0.6 million was equipment expenditures for diving with the balance associated with equipment expenditures for recreational fishing. The analysis also indicated that there was a total of \$324.6 million in economic output in coastal counties of the Gulf region associated with fishing and diving activities near oil and gas structures during the year. The value added component of this was \$164.1 million with employment estimated at 5,560 full time equivalents.

STUDY PRODUCTS: Hiett, R.L. and J.W. Milon. 2001. Economic Impact of Recreational Fishing and Diving Associated with Offshore Oil and Gas Structures in the Gulf of Mexico: Final Report. OCS Study MMS 2002-010. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. 98 pp.

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