

STUDY TITLE: Forecasting the Number of Offshore Platforms on the Gulf of Mexico OCS to the Year 2023

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SPONSORING OCS REGION: Gulf of Mexico

APPLICABLE PLANNING AREA: Western, Central, Eastern

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BACKGROUND: There have been about 5,600 offshore structures installed and operated by oil and gas companies in the United States. The nation's stock of offshore platforms is one of the primary components of its economic and physical capital. Constructing, operating, and removing platforms interacts with the economies and ecologies of adjacent coastal areas in important ways (positively as well as negatively). Although firms operating in the Gulf of Mexico conduct detailed engineering and economic planning studies to schedule platform installations and removals on their leases, little analysis has focused on how the entire collection of offshore platforms is likely to change over time and what variables or influences are responsible for those changes.

OBJECTIVES: (1) To make a forecast of the number of offshore platforms that will be removed, installed, and operated in the Gulf over the next two decades; and (2) To discuss the principal determinants and characteristics of the forecast as well as some of the uncertainties and implications of this forecast for the industries and individuals that use the Gulf's resources and the agencies that are responsible for their management and regulation.

DESCRIPTION: The forecasts in this report predict the number of new offshore structures to be installed, removed, and operated on the Gulf of Mexico OCS over the next twenty-five years 1999 to 2023. The forecasts were made by using econometric modeling techniques on historical data from 1947 through 1996.

SIGNIFICANT CONCLUSIONS: The most likely, or reference, forecast of the number of operating offshore structures on the Gulf of Mexico shows a decline of about 29 percent over the period 1999 to 2023. The decline will occur because the number of platforms being removed is predicted to increase significantly above current levels, while the number of platforms being installed is predicted to increase only slightly above current levels. As a consequence of this pattern, and the larger size of the platforms being installed, overall activity in removing and installing platforms increases significantly, despite the decline in the number of operating platforms during the forecast period.

STUDY RESULTS: The total number of oil and gas platforms located in the federal or OCS part of the U.S. Gulf of Mexico is forecast to begin a slow but steady decline over the first quarter of the next century. The plateau of about 3,600 structures that was reached and maintained during the 1990s is a peak, according to the forecast, and the drop-off-period for the decline.

By the year 2023 the number of platforms in the Gulf is forecast to be roughly 2,600, a drop of 1,075 platforms for a total that will be about 29 percent below the current peak. Alternative forecasts made by changing the values of the forecasting variables did not result in major differences from the reference forecast. Even spreading the range of the values used in the forecasting equations by adding two standard errors to forecasting variables did not reverse the trends in the reference forecast. Adding or subtracting two standard errors to the cumulative size of new oil and gas field developed in the Gulf and to the Energy Information Agency's forecast of oil prices resulted in forecasts in which the decline in operating platforms in high forecast was still more than 20 percent, as compared to 29 percent in the reference forecast. The decline in the corresponding low forecast was about 35 percent.

STUDY PRODUCTS: Pulsipher, A.G., O.O. Iledare, D.V. Mesyanzhinov, A. Dupont, and Q.L. Zhu. 2001. Forecasting the number of offshore platforms on the Gulf of Mexico OCS to the year 2023. Prepared by the Center for Energy Studies, Louisiana State University, Baton Rouge, La. OCS Study MMS 2001-013. U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA 66 pp.

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