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MODU Risk-MODU Mooring Strength and Reliability JIP Overview

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Abstract

The MODU Mooring Strength and Reliability Joint Industry Project (JIP) was a massive industry effort that involved all sectors of the MODU mooring industry, including drilling contractors, operators, equipment suppliers, consultants, and regulators. The project was originally conceived in January 2005 in response to Hurricane Ivan, and became a fully funded project by November 2005 after Hurricanes Katrina and Rita. This paper describes the background to the JIP, how it evolved as requirements changed, and industry expectations. It includes a synopsis of the major reports/deliverable, particularly those not specifically covered by other papers in this OTC special session on MODU risk. It will also describe some of the effects that the study has had on the way MODUs operate and are regulated within the Gulf of Mexico, and how industry is changing its mode of operation to adapt to the new requirements that were, in part, brought about because of the JIP.

JIP Background

Immediately after Hurricane Ivan industry leaders under the direction of Alan Verret (Offshore Operators Committee - OOC), Sandi Fury (Chevron) and Tim Sampson (API) convened the Hurricane Response Committee with representatives from Gulf of Mexico Operators, Drilling Contractors, OOC, API and IADC to review storm damage, share information on preparation, response & lessons learned as well as begin the process of preparing an industry response for regulators. During these meetings it was apparent that Operators felt they were faced with risks from MODU excursions in terms of potential pipeline and platform damage while the some Drilling Contractors believed Ivan was a rare event and did not justify an immediate rush into upgrades. The industry prepared their response and delivered it to the MMS and USCG in New Orleans. Overall the response was well received; however there was some skepticism that industry was taking the MODU loss of station keeping seriously. Following that meeting the regulators official response was ``No MODUs Adrift`` and ``No Risk``. The icing on the cake was found in a Noble Denton *post mortem* report on Hurricane Andrew [ref. 1] which validated the regulators skepticism by predicting more MODUs losing station when hurricane activity increased.

As a result, the OOC Drilling Technical Subcommittee (DTSC) discussed the current situation with OOC Leadership and decided more action was necessary due to the magnitude of deepwater production, increased subsea infrastructure, projected growth for deepwater areas, political sensitivity, and the reduction in available insurance in the GOM. In addition, Drilling Contractors had legitimate questions which needed to be answered in order to determine the effect a given upgrade would have on a specific MODU. Thus the OOC DTSC formed an *ad hoc* "Industry Planning Committee for GOMEX Mooring Reliability" in January 2005 when the Committee first formulated the idea of the MODU Mooring Strength and Reliability JIP. The subsequent events of Hurricane Katrina and Rita continued to energize the Committee and provided additional data on which to base its observations and recommendations. The Committee, under the auspices of the Offshore Operators' Committee and chaired by Craig Castille of Dominion E&P Inc.¹, was comprised of interested representatives from both drilling contractors and operators. There were a number of issues that needed resolution, each requiring careful thought and planning in order to reach the desired goal.

In June 2005 the Committee sent out requests for proposals to qualified contractors. The proposal request contained a number of subjects, but was intentionally broad in scope, thereby allowing the prospective contractors to complete the details of how they foresaw the study developing. It is important to realize that at this stage industry was still thinking of Hurricane Ivan in terms of an unusual and remote event: it was vital to react to the event, but the expectation was that there would not be another equivalent storm in the near future. Figure 1 shows an outline of the Industry response and timeline to the hurricanes.

¹ Dominion later became part of Eni U.S. Operating Company Inc.