



Concept image of the Mad Dog 2 platform. Credit BP

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Kongsberg Digital: BP chooses KONGSBERG to build dynamic simulator for Mad Dog Phase 2

Asker, Norway, March 12, 2018 – BP has awarded Kongsberg Digital a milestone contract to design, engineer, build, install, and perform acceptance testing of a sophisticated digital twin. In this case, it is a custom-built multipurpose dynamic simulator (MPDS) for the Mad Dog Phase 2 project in the Gulf of Mexico.

KONGSBERG's digital twin models will be connected to the Mad Dog 2

facility-integrated control and safety systems to create a realistic simulation environment that will deliver vital decision support for optimizing production efficiency. Applications of the simulator will include engineering studies, validation of process design, procedure validation, control system verification, and operator training.

The high-fidelity simulator will be built with KONGSBERG's established and proven dynamic process modeling software, K-Spice, and transient multiphase flow software, LedaFlow. Ensuring physical accuracy and high-fidelity, the simulator model will encompass all of Mad Dog 2's oil and gas and subsea systems, including all producing wells for water and gas injection, gas dehydration and regeneration, flare systems including systems for flare gas recovery, fuel gas, produced water and seawater, heating and cooling medium, and identified critical chemical injection systems.

The fully built and functional simulator is scheduled for delivery at least one year before first oil. This will allow ample time to train the operators and ensure competency in a facility operations context. It will also contribute to safe commissioning and start-up.

Kongsberg Digital has previously provided, and continues to maintain and support, multi-purpose dynamic simulators for other BP platforms in the Gulf of Mexico including Mad Dog, Atlantis, Na Kika, and Thunder Horse.

"Kongsberg is very pleased to deliver the dynamic simulator for the Mad Dog Phase 2 project. It demonstrates the value our digital twin solutions can provide in field development projects," said Hege Skryseth, President of Kongsberg Digital.

About Mad Dog Phase 2:

Read more about the Mad Dog Phase 2 project here:

https://www.bp.com/en_us/bp-us/media-room/press-releases/bp-approves-mad-dog-phase-2-project-in-the-deepwater-gulf-of-mexico.html

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About Kongsberg Digital

Kongsberg Digital is a provider of next-generation software and digital solutions to customers within maritime, oil and gas, and renewables and utilities. The company consists of more than 500 software experts with leading competence within internet of things, smart data, artificial intelligence, maritime simulation, automation and autonomous operations. Kongsberg Digital is the group-wide center of digital expertise for KONGSBERG.

Since July 2016, Kongsberg Digital has become the parent organization for staff, products, and expertise of the former Kongsberg Oil & Gas Technologies organisation and the maritime simulation department of Kongsberg Maritime. Kongsberg Digital is also the driving force behind the Kongsberg Information Management System (K-IMS), a future looking open platform for vessel management and operation, offering full integration of sensors and systems for smart data and decision support. K-IMS is the bridge between offshore marine systems and onshore business enterprises.

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