Transocean marine trainer built for 'what if' scenarios offshore

Mike Killalea, Editor & Publisher

LIKE MANY TRAINERS, Ken Chapman likes to ask "What if?" What if a hole the size of a shoe box were punched into a semisubmersible's pontoon? What if that occurred during severe weather and the power was lost?

The stuff of 007 scripts? Maybe. And sure, the likelihood of any such event is remote. Still, such calamities are within the realm of possibility, and rig managers and operators must know how to deal with them.

Training can't correct these problems, much less prevent them, but it can prepare one for the possibility, observes Mr Chapman, Marine Insructor at **Transocean Inc's** Aberdeen training center. .

"Knowledge is preparing for the future," he says. "It's not the definitive answer."

Mr Chapman's students play out such scenarios on the company's new, state-of-the-art marine simulator. The simulator was commissioned last August, and training began on it in January.

The device can accommodate 8 people and is mounted on a computer-controlled motion platform. With it, Transocean drilling personnel from around the world are trained in 3 major areas—practical stability for semisubmersibles, management in major emergencies and jackup operations. The multi-purpose simulator can reproduce the ballast-control environment for 3 classes of semisubmersibles—710 series, Aker H4.2 and GVA 4000—as well as the jacking control room of a jackup rig.

It consists of 3 main parts—a training room mounted on a motion platform, an instructor's suite and a separate observer/assessors room.

The training room is equipped with 2 consoles. One controls marine operations, the other, emergency systems, such as fire and gas control panels.

Transocean's new state-of-the-art marine simulator uses computer-controlled linear-actuator motors rather than hydraulics to replicate up to 15 degrees combined pitch and roll.

The marine-operations console on the platform itself contains 8 touch-sensitive screens for all functions that a ballast control operator would use—ballasting, mooring and monitoring/managing weather conditions to realistically and accurately simulate rig behavior. The operator can simulate the shifting of weights on deck, in pontoons and on creases, as well as in other areas. The system can replicate environmental conditions ranging from flat, calm seas, to a hurricane to installation damage.

Mr Chapman says the courses strive for 3 main goals—safety of people, safety of the installation and survivability.

And he can put the simulator through its courses. The facility can simulate combined pitch and roll of up to 15 degrees with its computer-controlled linear actuator motors. In addition to simulating effects of inclination and wave motion a floater might experience, the unit can also mimic the jolts, shudders and lurches that could occur during a jackup punch through or collision.

"We build confidence here," he says. ■