



### DEEPRIFT: ON-BOARD VESSEL DRIFT-OFF SIMULATOR

With exploration and development moving into ever deeper waters and harsher environments, MCS has brought a new product to market which offers drilling companies and operators the ultimate in safety and insurance whilst increasing their drilling up-time.

Developed for drilling contractor GlobalSantaFe, **DeepDrift** is an on-board vessel/riser drift-off simulator designed for use with dynamically positioned drilling rigs. The software tool uses prevailing or forecast environmental conditions such as wind, wave and current to ensure the vessel has constant and up-to-date information on alert offsets so that the drilling company can maximize the operating window and minimize down-time.

**DeepDrift** predicts the vessel drift-off path in the event of power failure and determines when the riser emergency disconnect sequence should be activated. The outputs from the program are the yellow and red alert offsets for the DP power-loss scenario.

GlobalSantaFe has been using the software tool on its fleet of DP drilling rigs. GlobalSantaFE estimates **DeepDrift** has brought significant benefits in terms of safety and riser integrity, and has clearly demonstrated its value in drilling day rate savings.

#### SCOPE OF DELIVERY

- On-board drift-off simulator for DP drilling rigs using state-of-the-art fully coupled finite-element model of vessel, riser and well system
- Predicts drift-off path and alert offsets in the event of power failure based on prevailing or forecast metocean conditions
- Determines point at which emergency disconnect sequence must be initiated

#### BENEFITS

- Huge \$ cost savings in increased drilling time - operating window is based on actual metocean conditions, reducing drilling down-time
- Alert offsets based on actual metocean conditions enhances safety and riser integrity
- Intuitive operator's interface allowing fast and simple input of metocean conditions and clear display of results
- Allows rig personnel sufficient time to perform emergency disconnect without damage to the equipment or the well