



Services International, Inc.

PROJECT: Thruster System Integration Engineering of a DPS-3 Ultra-Deepwater Drillship

CLIENT: Hyundai Heavy Industries, Ltd. (HHI)

BACKGROUND:

Global SantaFe Corp. (now part of Transocean Offshore) has contracted Hyundai Heavy Industries, Ltd. (HHI) to build a new ultra deepwater drillship for turnkey delivery in Sept. 2010. The drillship is an enhanced version of GlobalSantaFe's C.R. Luigs and Jack Ryan drillships, which entered service in 2000. It will be able to drill in 10,000 ft (3,048 m) water depth and is upgradeable to 12,000 ft (3,658 m). The drillship features advanced DPS-3 dynamic positioning capabilities consisting of six fully retractable azimuthal thrusters (a unique system among drillships), triple activity load paths, a derrick rated for 4 million lbs (1.8 million kg), dual liquid-storage systems, larger quarters and an efficient deck design that provides more space than previous-generation drillships.

SCOPE OF WORK:

Recommended by Global SantaFe, and under direct contract with HHI, ESI is responsible for the following:

- Coordinating the interfaces between all the equipment vendors for the thrusters and control systems and HHI, including chairing of the project interface meetings
- Attending/witnessing SIT and FAT events
- Review of the system's design and technical advisory to HHI regarding the design and system integration with the hull of the drillship, installation and removal.
- 3D modeling of the canisters supporting the thruster units, and the truck housing in the hull of the drillship the canisters, including the position adjustment system, locking mechanism, and initial installation, future lifting/removal during serve
- Simulation of the canister retraction to various positions, and removal of the thrusters
- Recommendation regarding any modification/updates to the design