Increased DP Sensors Demand

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Abstract

With the increasing number of DP vessels of all types being built and upgraded, and the ever-increasing requirements to increase efficiencies, there is more focus on the DP system and its overall reliability. DP hardware and interfacing is being standardized by most manufacturers, which provides more intuitive operator interfaces and increased functionality. The DP system is however only as good as the sensor information it is presented with. This paper provides a brief review of developments in the actual DP systems to meet these growing industry demands including expanded interfacing, more robust hardware as well as how DP systems operate with these expanded capabilities. In particular, the increasing requirements of the DP on its sensor suite are broken down. This includes the redundancy requirements for sensor operating principles as well as redundancy within individual principles. The data frequency and stability required for the range of sensors is reviewed with analysis for appropriate sensor suites for various applications. Finally some conclusions will be shown regarding how these requirements can best be met as the industry works in continually deeper water depths where overall DP system reliability is critical.

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