Title: **Approaches to a Greener DP Vessel**

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Abstract

The shipping industry is facing both business and regulatory pressure to improve the environmental performance and reduce the carbon footprint. Despite a drop in oil prices, the fuel still account for the majority of the operating cost and several measures have been proposed and implemented to increase the business margins.

Typically, vessels equipped with a system for dynamic positioning has a different operational pattern than traditional vessels that spend most of the fuel during transit and optimize for minimum amount of time in port. Meanwhile, a DP vessel can spend equal (or less) amounts of time on DP as in transit. In addition, DP vessels have a more complex power system with safety and redundancy concerns.

This paper outlines different methods and applications that, either independently or in combination, save energy and fuel costs during operation of a DP vessel. We pay particular attention to digital solutions for existing vessels. The paper presents among other things a weather optimal positioning system and data logging opportunities, and describes how a solution may affect the vessel's environmental performance.

Finally, the paper addresses the importance of the human factor.