

**Title: Redundancy in Dynamic Positioning Systems based on Satellite Navigation**

**Authors:** Ole Ørpen, Tor Egil Melgård, Arne Norum, *Fugro Seastar AS (Oslo, Norway)*

**Abstract**

The use of Global Navigation Satellite System (GNSS) has become very important in DP applications where several independent reference systems are required. In most cases more than one GNSS based reference system is used. It is therefore vital that these systems are independent from corrections generation, via distribution and onwards to applying the corrections onboard the vessel.

This includes the following.

- Independent generation and collection of reference data
- Independent broadcasts
- Independent onboard systems
- Use of several GNSS (GPS, GLONASS, etc)
- Use of different techniques to generate corrections (traditional network and orbit/clock corrections)

Fugro is developing a new service that uses dual frequency GPS and GLONASS data. The service is a decimeter level phase based orbit/clock system. Results from testing of the service are presented. The service will be introduced early 2009.

Click below to:

[\*\*Review the complete paper\*\*](#)

[\*\*Review the presentation\*\*](#)

[\*\*Return to the Session Directory\*\*](#)