



Fugro Satellite Positioning



Marinestar® provides users with access to the latest developments in high performance Differential Global Satellite Navigation System (DGNSS) positioning.

Marinestar® - high accuracy positioning products and services

High Precision Marine Positioning

Marinestar® high performance positioning products and services are able to meet a wide and varied range of applications in marine scientific and oceanographic research, hydrographic survey, cable laying, dredging and fishing. Even naval users can benefit from Marinestar® services.



High accuracy in three dimensions for Hydrographic Survey

Precision in 3D

Marinestar® services deliver decimetre level accuracy – not just in horizontal position but also in height.



High accuracy positioning with no dependency on local shore based infrastructure for dredging

Services

Marinestar® GPS is a decimetre level, phase based service using satellite 'orbit and clock' data valid worldwide, based upon GPS L1 and L2 frequencies. The Marinestar® GPS Service provides a high performance global solution to a horizontal accuracy of 10 cm (95%) and vertical accuracy of 15 cm (95%).

Marinestar® GNSS is an integrated DGPS/DGLONASS, decimetre level, phase based, service using satellite 'orbit and clock' data valid worldwide, based upon GPS and GLONASS L1 and L2 frequencies. The Marinestar® GNSS Service provides a high availability, high integrity, global solution to a horizontal accuracy of 10 cm (95%) and vertical accuracy of 15 cm (95%).



Use of both the American GPS and Russian GLONASS Navigation Satellite Systems

MARINESTAR®

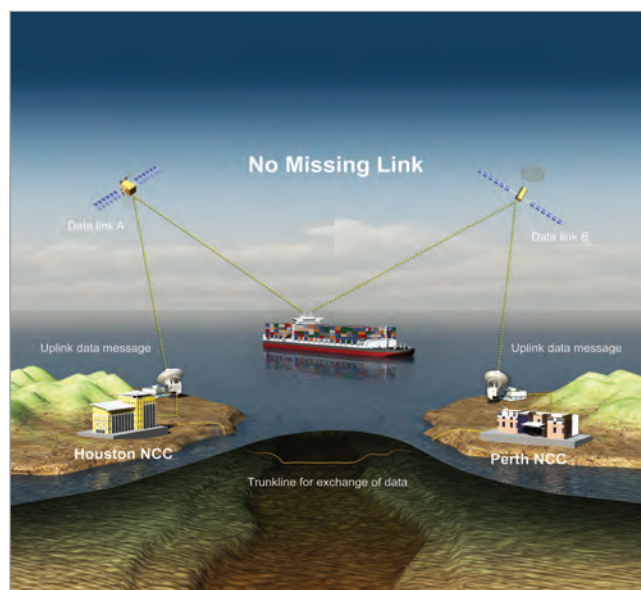
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Fugro Data Network

Fugro operates a fully duplicated network for the production and delivery of high performance Global Navigation Satellite System (GNSS) augmentation services.

The network includes:

- Independent Network Control Centres (NCC's) in Perth, Australia and Houston, USA
- Back up NCC's in Australia and America
- Dual satellite broadcast data links in all ocean regions
- Alternative data processing models and reference station networks



The Fugro Data Network

Compatible Hardware

Marinestar® compatible equipment includes the compact, integrated 9205 GNSS receiver and the Kongsberg Seatex Seapath range of receivers.



The world's largest cruise ship
Royal Caribbean International's Oasis of the
Seas uses the Marinestar® manoeuvring system
to assist with berthing.

Specifications subject to change without further notice