

# MARINESTAR™ POSITIONING SERVICES

**Fugro Satellite Positioning Services is market leader in the development and operation of satellite-based positioning world-wide.**

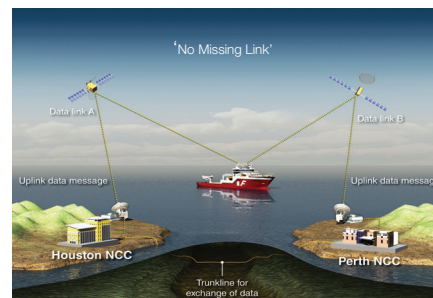
Marinestar™ offers a range of services tailored to the particular application and market environment to ensure a cost effective, fit for purpose solution under every circumstance.

## MARINESTAR POSITIONING APPLICATIONS

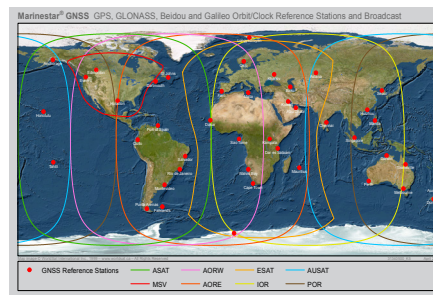
- Deep sea international trading vessels
- Passenger/cruise ships
- Research vessels
- Hydrographic survey
- Dredging vessels
- Cable lay vessels
- Salvage tugs
- Stand by and rescue vessels
- Navy and Coast Guard
- Fishing vessels

# 4

## GLOBAL NAVIGATION SATELLITE SYSTEMS



*Fugro Data Network*



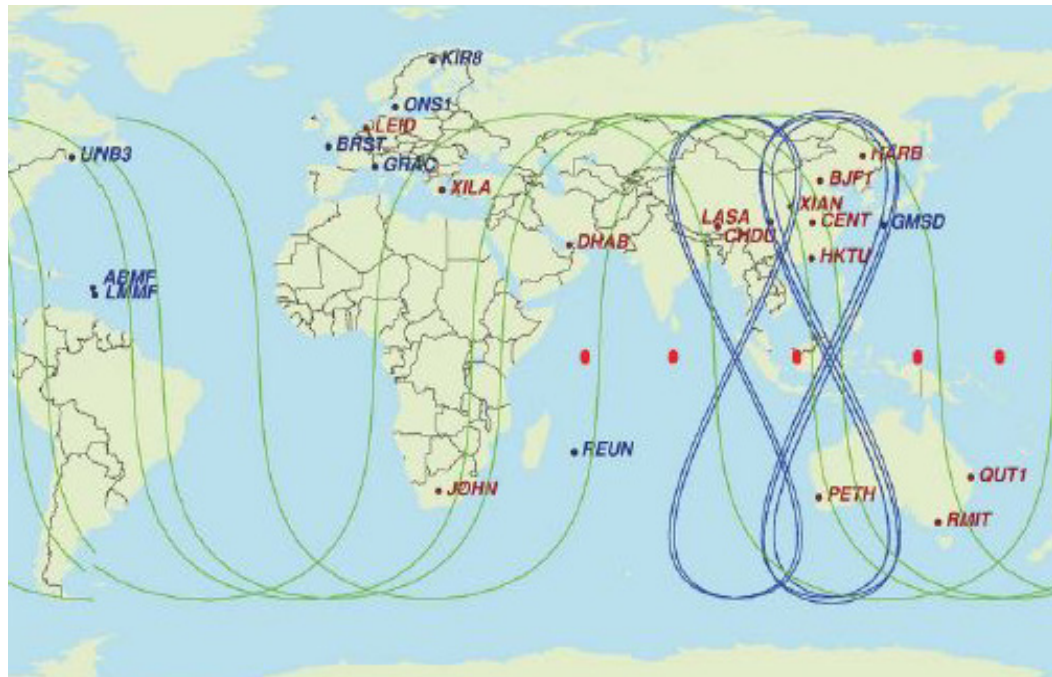
*G2/G4 Coverage Map*

## MULTI CONSTELLATION FOR MORE PRECISION, MORE REDUNDANCY AND MORE SAFETY

- Beidou
- GPS
- Glonass
- Galileo (currently still in test)

## QUALITY OF SERVICE

- 2 x 2 Network Control Center and uplink station
- 9 commercial beams
- Back-up corrections via internet (NTRIP)
- Polar options
- XYZ better than 8 cm



BeiDou Coverage Map

## DREDGING/MARINE CONSTRUCTION

- World Wide availability
- No Shore Based Infrastructure
- Accurate Absolute Positioning
- Accurate Height



## NAVY/HYDROGRAPHIC

- GPS/GLONASS Decimetre Service
- Ready for Galileo Decimetre Service
- Available on Third-Party Receivers
- Reliable Positioning for Unmanned Vessels (USV/UAV)



## WINDFARM

- Multiple Satellite Delivery
- Multiple GNSS
- Multiple Reference Networks
- Redundancy, Availability, Independence

