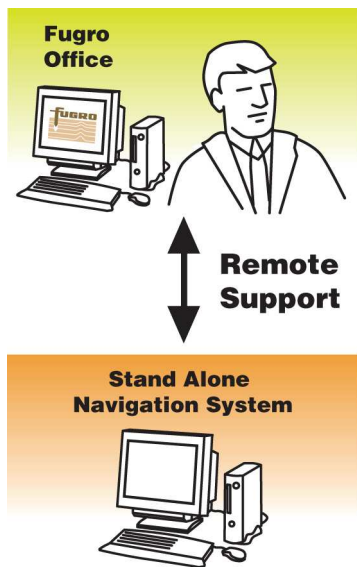


FUGRO Stand Alone Navigation

Stand Alone Navigation

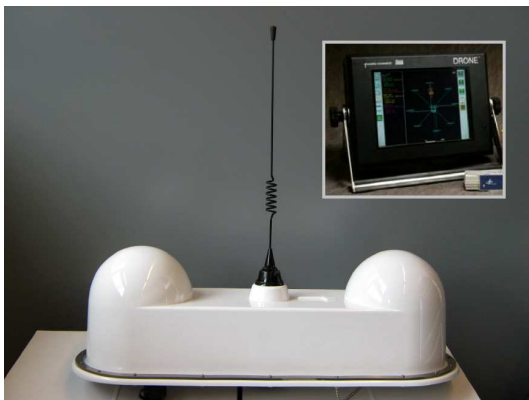
Fugro Stand Alone Navigation, based on FANS[®] technology, is an on-demand navigation solution specifically designed as an alternative to traditional navigation services.

Stand Alone Navigation with Remote Support is ideally suited for nearshore and offshore operations where a frequent, but non-permanent need for navigation support is required, for example, on jack-up work barges and rigs, tug boats and support and construction vessels.



Positioning Hardware and Software

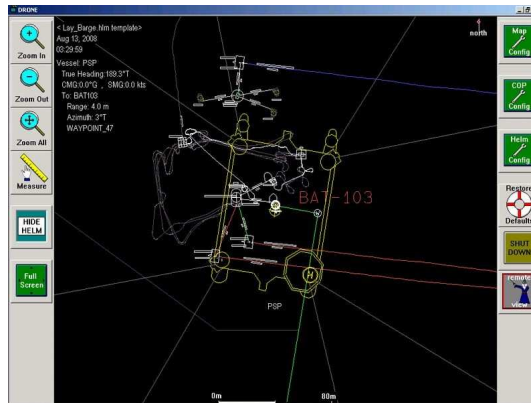
Fugro's DRONE system forms the hardware component of the navigation package. Fugro's differential correction services and the widely appreciated DRONE navigation program comprise the software element.



The Stand Alone Navigation Package

Remote Support on demand

The application of FANS[®] technology makes it possible to receive remote navigation support on demand. A Fugro survey professional can gain full control of the offshore navigation system from the office, 24 hours per day, enabling them to update, modify, and maintain the navigation system, as designated.



DRONE Navigation Display

Features

- Unmanned navigation system
- DGPS position and heading output
- Fugro differential GPS corrections
- On demand remote navigation support
- Update site maps
- Enter waypoints
- Record a fix
- Log position data
- Remote diagnostics and solution
- Internet connection to the Fugro office

Benefits

- Only operational hours of personnel are charged
- Fewer to field / in-field transits
- Reduced HSE exposure

Cost efficient and secure

Stand Alone Navigation with Remote Support is cost efficient and secure. No permanent survey crews are required onboard. The costs of accommodation, mobilizations, and in-field transits can be saved. Additional costs for on-demand remote support are chargeable by the hour. Moreover, personnel travel and assignment in potentially hazardous areas is minimized.

FUGRO Stand Alone Navigation

FANS® technology

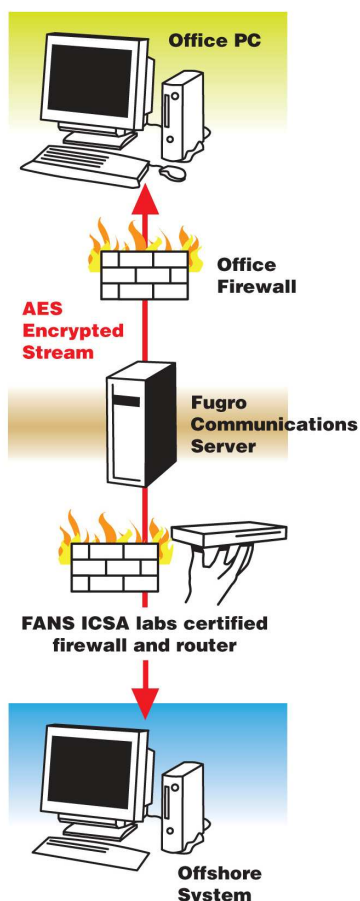
FANS® (Fugro Advanced Navigation System) technology provides an infrastructure to remotely connect to offshore survey systems.

The connection is achieved via the internet and the FANS® hard- and software onboard the vessel or rig. The internet connection can be via VSAT or another communications link that supports internet IP-traffic.

Should suitable communications be unavailable onboard, Fugro can offer alternative communication solutions.

Security features

Security is managed by the FANS® hard- and software. The FANS® firewall and router protects the survey network against interference from other computers onboard and on the internet. The software, with 128bit AES data encryption, enables a secure connection between the office and offshore operation.



Bandwidth

In standby mode, only a few bits per minute are sent to monitor the connection and even in use, the system requires only 10-20 kbps of bandwidth. On average less than 10 kbps is needed - a bandwidth comparable to that required for a phone call.

More Remote Services

Fugro offers a range of remote services based on FANS® technology. These services are based on the concept of remotely connecting to offshore systems from the office.

The range of Fugro Remote Services comprises:

- Remote Monitoring
- Stand Alone Navigation with Remote Support
- Remote QC



Additional information

For additional technical details and / or pricing information, please contact your local Fugro office or email:

Remote-services@fugro-survey.nl