

Fugro launches combined GPS/GLONASS system

www.fugroseastar.no

Norwegian navigation specialist Fugro Seastar has launched its new SeaSTAR G2 high performance navigation service, combining the navigation satellites of both American GPS and Russia's GLONASS to produce a composite GPS/GLONASS position solution.

The service utilises Fugro's own network of dual system reference stations to calculate 'orbit and clock' errors on a satellite by satellite basis for all 50 satellites of the two global navigation satellite systems, which it says allows for consistent decimetre level accuracy positioning on a world wide basis.

As well as broadcasting the correction signals, Fugro also provides its 'G2 Engine' end user position processing software, which is embedded in compatible receivers.

At the present time the Russian GLONASS positioning system does not offer full global coverage on a 24 hour basis, so in the Fugro system these satellites are used to supplement GPS, but when the Russian system does become fully available (expected by early 2011) it will be possible to select single system GPS or GLONASS modes for increased system independence.

Tor Melgard, research and development manager for Fugro Seastar, stated that: "As far as we know this is the first real-time, precise, orbit and clock solution developed by a commercial company for GLONASS, and it is also the first combined orbit and clock GPS/GLONASS solution from any real time source."

"This achievement has been possible because of Fugro's long experience in the field of precise satellite based positioning systems. The development of G2 has benefited from the close cooperation between Fugro Seastar and ESOC (European Space Operation Centre), a division of ESA (European Space Agency)"

Managing director Arne Norum added: Although there may be some improvements in accuracy in comparison to single system services, this is not

really the goal of G2. Our customers utilising differential satellite navigation services are quite happy with existing accuracy. What they are seeking is improved service reliability and availability, and this is what G2 offers."

"By using the full range of satellites from both the American and Russian systems we can ensure best possible service reception - even when satellite visibility is partially obstructed by large structures or ionospheric disturbances. Use of more

satellites also improves reliability by confirming data validity."

Fugro says that the G2 service has undergone extensive laboratory and field tests and is expected to be available from 1st February 2009.

Advertisement