

TRINITY HOUSE  
NOTICE TO MARINERS  
No.9/12 B2, C5, D2, E4, F4, G2

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GLAs PUBLIC DGPS TRANSMISSIONS  
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The Differential Global Positioning System (DGPS) is provided as a marine aid to navigation, giving 24 hour a day, all year round service with overlapping signal coverage up to 50 nautical miles around the coasts of the United Kingdom and Republic of Ireland. The differential signals are transmitted using a terrestrial network of medium frequency marine radiobeacons in the 283.5 - 315 kHz band. For mariners equipped with a suitable receiver the signal provides both real time integrity monitoring of GPS derived positions and the capability of fixing their positions to better than 5 metres (95% probability) in moving applications. Greater accuracy can be achieved in stationary applications.

All mariners are advised:

1. DGPS relies inherently on GPS, the operation and characteristics of which is under the control of the US Department of Defence. Users are cautioned that the signal availability and accuracy may be subject to change without warning.
2. The DGPS service is provided primarily for use in monitoring the integrity of GPS to enhance the safety of marine navigation. The provision of greater accuracy for marine navigation is a secondary feature.
3. Signal reception may become unreliable, under certain extreme environmental conditions, towards the limits of the geographical coverage.
4. All radio navigation systems are susceptible to interference (including jamming or spoofing) and environmental effects, which can adversely affect their availability. The GLAs strongly advise that no single aid to navigation system should be used in isolation and that DGPS users should use all alternative means available to cross check the information received. Users should also ensure that they have a receiver which gives sufficient warning of the complete loss of the DGPS signal and reversion to GPS.
5. A wide range of on-board systems use GPS for timing and positioning purposes. The performance of these systems will also be affected by any GPS interference.
6. Various DGPS receiver types are available, some of which may not provide appropriate or timely warnings in respect of the system.
7. GLA Medium Frequency (MF) DGPS should not be confused with Satellite Based Augmentation Systems (SBAS) such as EGNOS, the European Geostationary Navigation Overlay Service, or WAAS, Wide Area Augmentation System. SBAS enabled receivers generally do not receive MF DGPS signals nor do MF DGPS receivers receive SBAS signals.

8. Reference should also be made to the Admiralty List of Radio Signals (Vol 2 – NP282) for details of Radiobeacons transmitting DGPS corrections. Also to the Mariners Handbook (NP100) where the attention of mariners is drawn to the section dealing with horizontal datum's on charts and the notes on satellite derived positions.

By Order,

Captain R.H. Barker

Director of Navigational Requirements.

Trinity House,  
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