



Meteorological & Oceanographic Studies

GL Noble Denton's Metocean Department has been supplying meteorological and oceanographic data to the marine and offshore industries worldwide for more than 30 years. A thorough understanding of the requirements of these industries, together with in-house expertise, ensures that our products are of the highest standard.

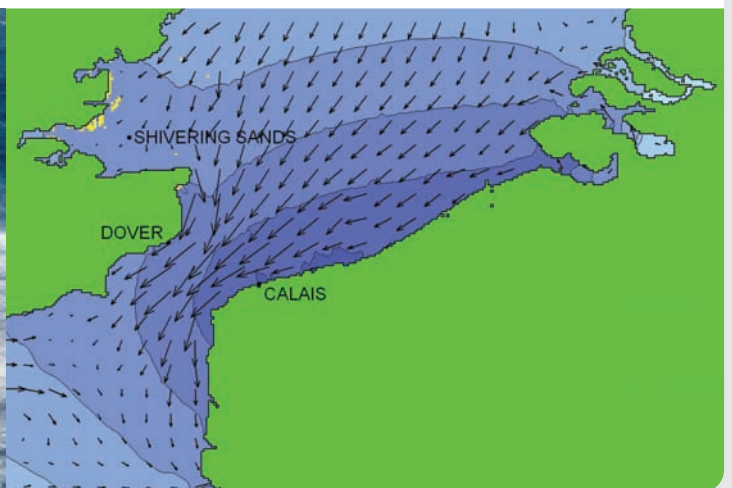
The service

GL Noble Denton offers a comprehensive range of cost-effective metocean reports providing all the meteorological and oceanographic information required for a wide range of marine and offshore projects with a fast turn-around:

- **Spot Location Reports** – Concise statements of extreme conditions at any single offshore site for any season, direction or return period suitable for rapid assessment of offshore units
- **Comprehensive Studies** – Authoritative reports defining metocean criteria for input to a wide range of applications including platform design, mooring design, riser analysis,

pipeline and cable design, port developments and offshore wind farms

- **Marine Transportation Criteria** – Provides design criteria for marine transportation projects taking account of method of transportation, departure date, proposed route and vessel speed
- **Climate Tables** – Tabular presentations of wind, wave and current data for any season at single points or along routes that are used for planning purposes and fatigue analysis
- **Rosettes** – Graphical presentations of directional data
- **Tropical Cyclone Analysis** – Calculation of extreme wind speed, wave height, water level and current speed at single points or along routes
- **Spectral Wave Modelling** – Simulated wave generation, wave refraction and wave dissipation for any location, given wind, wave, and bathymetric input. Simulations are performed using the MIKE 21 Spectral Wave model that has been developed and tested extensively by the Danish Hydraulic Institute





- **Flow Modelling** – Simulations use the MIKE 21 Flow model, which allows the effective simulation of tidal and wind driven currents and water levels for worldwide locations. Results from these types of simulation can be integrated seamlessly into the spectral wave model to provide reliable and accurate descriptions of the physical marine environment
- **Waiting on Weather Analyses** – Assessments of likely delay to operations due to unsuitable metocean conditions
- **Specialised Consultancy** – Advice relating to specific incidents and occasions

Experience and competence

Since 1976 GL Noble Denton's Metocean Department has prepared more than 8,000 reports for sites and marine transportation routes all around the world and is able to draw on the experience of company engineers, designers, mariners and marine warranty surveyors as well as metocean specialists.

Our reports are based on the latest data from various sources including satellites, computer models, ships and buoys and all our data and reports are comprehensively indexed in our data archive and library. Our service is provided under a quality management system that conforms to ISO 9001-2000.

