

GENERAL SPECIFICATION

SURVEYS

GS EP GEO 506

Meteorological and Oceanographic Forecasting

04	11/2017	Update on transmission and data quality control, additional requirements on ice-related forecasts
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General Specification		GS EP GEO 506
Meteorological and Oceanographic Forecasting		
Rev.: 04	Effective date: 11/2017	Page: 2 of 14

Contents

1. Scope	3
2. Reference documents	3
3. General Conditions	4
3.1 General Forecasting Requirements.....	4
3.2 Forecast Provision	5
4. Forecasting Services - Standard Requirements.....	5
4.1 Forecast Production.....	5
4.2 Forecast Verification	6
4.3 Data Assimilation	6
4.4 Forecast Transmission.....	7
4.5 Emergency and Ad-hoc Services	8
4.6 Personnel.....	8
5. Forecast Services - Specific Requirements.....	9
5.1 Routine Daily Forecasts	9
5.2 Additional Daily Forecasts.....	10
5.3 Current Forecasting Service.....	11
5.4 Specialised Forecast Products.....	12

General Specification		GS EP GEO 506
Meteorological and Oceanographic Forecasting		
Rev.: 04	Effective date: 11/2017	Page: 3 of 14

1. Scope

This General Specification covers the provision of METeorological and OCEANographic (metocean) forecast services for Company's offshore and onshore surface installations and operations. Such services comprise the prediction and dissemination of not only wind and meteorological parameters, but also waves, current, tide and other oceanographic variables, in order to provide advance knowledge of metocean conditions. For convenience, in this document the term 'metocean' is used generically to describe either type of forecast, unless the narrative states otherwise.

Metocean forecasts are required for a number of applications including:

- Routine daily (or several times daily) forecasts to support on-going operations at one or more offshore, coastal or onshore sites
- Ad-hoc forecasts to support weather sensitive operations such as heavy lifts, tows, offshore installation etc.
- Specialist forecasts to support particular Company operations.

This General Specification describes generic requirements for the provision of forecasting services and indicates the minimum standards required by Company. The duration and exact scope of a forecasting services contract will depend on Company's particular objectives, which are described in the Scope of Work and other documents issued as part of the Invitation to Tender (I.T.T).

The work defined in this specification shall be performed in accordance with the Contract.

Except where otherwise stated, this specification does not refer to, or cover, the deployment and use of instrumentation by which data for forecast calibration, validation or verification may be obtained. These topics are covered by **GS EP GEO 501** and **GS EP GEO 505**.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published at the effective date of this document.

Reference	Title
ICAO DOC 9680	Manual on the Provision of Meteorological Service for International Helicopter Operations
NWS 10-303	Marine and Coastal Services Standards and Guidelines http://www.nws.noaa.gov/directives/sym/pd01003003curr.pdf

General Specification		GS EP GEO 506
Meteorological and Oceanographic Forecasting		
Rev.: 04	Effective date: 11/2017	Page: 4 of 14

Total General Specifications

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Reference	Title
GS EP GEO 501	Meteorological and Oceanographic survey
GS EP GEO 505	Monitoring of Metocean Conditions for Offshore Units

3. General Conditions

3.1 General Forecasting Requirements

- Contractor is responsible for the timeliness, currency and accuracy of forecasts issued for the area of responsibility.
- Contractor shall always seek to maximise spatial and temporal consistency between consecutive forecast periods and, where appropriate, adjoining offices.
- If any error is observed in any part of the forecasting process, Contractor shall correct it at no charge to Company.
- Contractor shall always include in his forecasts significant or predominant metocean events impacting, or likely to impact, forecast users. This includes metocean conditions associated with tropical revolving storms or Polar lows.
- Forecast services shall be run and assessed in accordance with the following standards ([NWS 10-303](#)):

Aspect	Standard	Measure
Timeliness	Routine products disseminated according to published time schedules Event driven products disseminated as soon as possible	Compare issuance and scheduled times Compare lead time between event occurrence and product issuance
Accuracy	Products consistent with actual weather	Compliance with expected (required) standards
Consistency	Products coordinated between adjoining areas Products consistent with other in-office products	Consistency between neighbouring areas Consistency with appropriate aviation and public products
Format	Products disseminated in the proper format Products contain required information Products grammatically correct	Comparison with approved format Comparison with approved content Compliance with correct spelling and approved acronyms
Usefulness	Products clear and concise	Easily comprehended by users

General Specification		GS EP GEO 506
Meteorological and Oceanographic Forecasting		
Rev.: 04	Effective date: 11/2017	Page: 5 of 14

One key requirement of the forecasting service is that data display should be simple and easily understood.

3.2 Forecast Provision

The work defined in this General Specification shall include all works necessary for, or incidental to, the preparation and provision of meteorological or metocean forecasting for the project, except the installation and maintenance of measuring sensors. The work shall include but not necessarily be limited to, the following:

- Collation of recorded and/or modelled meteorological and/or oceanographic data
- Analysis and synthesis of recorded or modelled meteorological and/or oceanographic data
- Forecast verification and validation
- Preparation and dissemination of forecast reports providing sufficient information for project operations
- Back up and archive of all relevant forecast data and documentation, so that in the future it may be supplied to Company if requested
- Note that English is the required language for any forecast, documentation and correspondence
- Contractor shall ensure that all forecast presentations are correctly labelled with the units and directional conventions applied.

4. Forecasting Services - Standard Requirements

4.1 Forecast Production

Contractor shall specify in his tender submission the process and means by which his forecasts will be prepared. This information shall include as a minimum:

- Software - data plotting and analysis, production of forecast parameters
- Hardware - PC's, servers and backup/archiving procedures
- Numerical models - description of models, data acquisition routes and model verification details
- Recorded data - acquisition and integration in forecast production process
- Production flow diagram, from initial reception of model/measured data to final issue of forecast.