

NORSOK STANDARD

COLLECTION OF METOCEAN DATA

N-002
Rev. 1, September 1997

Provided by Standard Online AS for rayan 2013-07-21

Please note that whilst every effort has been made to ensure the accuracy of the NORSOK standards neither OLF nor TBL or any of their members will assume liability for any use thereof.

Provided by Standard Online AS for rayan 2013-07-21

CONTENTS

FOREWORD	2
INTRODUCTION	2
1 SCOPE	3
2 REFERENCES	3
2.1 Normative references	3
2.2 Informative references	3
3 DEFINITIONS AND ABBREVIATIONS	4
3.1 Definitions	4
3.2 Abbreviations	4
4 COMMON REQUIREMENTS	4
4.1 General	4
4.2 Instrumentation	5
5 METEOROLOGY	5
5.1 General	5
5.2 Weather observation and reporting for helicopter operations	5
5.3 Weather observation and reporting for weather forecasting services	6
5.4 Weather observation and reporting for climatological purposes	6
5.5 Weather observation and reporting for operational needs	7
6 OCEANOGRAPHY	8
6.1 General	8
6.2 Measurements and observations	8
ANNEX A - RECOMMENDED INSTRUMENT ACCURACY AND TYPICAL OPERATIONAL PERFORMANCE (INFORMATIVE)	9
ANNEX B - POTENTIAL APPLICATION FOR METOCEAN INFORMATION (INFORMATIVE)	16

FOREWORD

NORSOK (The competitive standing of the Norwegian offshore sector) is the industry initiative to add value, reduce cost and lead time and remove unnecessary activities in offshore field developments and operations.

The NORSOK standards are developed by the Norwegian petroleum industry as a part of the NORSOK initiative and are jointly issued by OLF (The Norwegian Oil Industry Association) and TBL (Federation of Norwegian Engineering Industries). NORSOK standards are administered by NTS (Norwegian Technology Standards Institution).

The purpose of this industry standard is to replace the individual oil company specifications for use in future petroleum industry developments and operations, subject to the individual company's review and application.

The NORSOK standards make references to international standards. Where relevant, the contents of this standard will be used to provide input to the international standardisation process. Subject to implementation into international standards, this NORSOK standard will be withdrawn.

This NORSOK standard has been developed to replace the metocean part of Guidelines to regulations on environmental data for the petroleum activities, issued by NPD.

Annex A is normative. Annex B is informative.

INTRODUCTION

Offshore metocean monitoring systems can vary from simple weather stations for aviation purposes, to complete data acquisition systems incorporating a wide range of sensors and sophisticated data processing, display, storage and transmission features. By providing real-time information for operational use and long term records for engineering design purposes, offshore metocean monitoring systems play an important role in ensuring safe offshore operations.

This standard is intended as an initial reference for offshore operators when planning metocean monitoring equipment on offshore installations. It covers both statutory requirements and operator's own requirements, spanning applications such as weather forecasting, climate statistics, helicopter traffic, tanker loading, marine operations etc.

The collection of metocean data is normally the result of requirements imposed by NPD or other authority, and the operator's own needs. When specifying a metocean data collection system, this standard shall be supplemented by a list stating which requirements to fulfil. This standard contains the necessary information for the requirements normally imposed by NPD, and a check-list to identify operator's own needs.

1 SCOPE

This NORSOK standard presents functional requirements and common principles for the collection of metocean data, i.e. meteorological and oceanographic data.

2 REFERENCES

2.1 Normative references

The following standards and documents include provisions which, through reference in this text, constitute provisions of this NORSOK standard. Latest issue of the references shall be used unless otherwise agreed. Other recognised standards may be used provided it can be shown that they meet or exceed the requirements of the standards referenced below.

- DNMI: Report 18/97 KLIMA. Recommended format (NORSOK) for the delivery of metocean data.
- Luftfartsverket: Forskrift om kontinentalsokkelflyging - Ervervsmessig luftfart til og fra helikopterdekk på faste og flyttbare innretninger til havs. Bestemmelser for sivil luftfart. BSL D 5-1, Oslo.
- NORSOK standard T-SR-100 (T-100) - Telecom subsystems
- NPD: Regulations relating to the collection of environmental data in the petroleum activities.
- WMO, 1995: Technical Regulations. Manual on Codes, Volume I.1, WMO-No. 306, Geneva.
- WMO/ICAO, 1996: Guide to the Provision of Meteorological Service for International Helicopter Operations. WMO-No. 842, Geneva
- WMO, 1996: Guide to Meteorological Instruments and Methods of Observation, WMO-No. 008, Geneva.

Note: The World Meteorological Organization, WMO, is the major international reference on many of the topics discussed herein. The technical documentation of WMO is extensive, therefore this standard makes specific references to relevant parts of WMO-documentation. Furthermore, DNMI has accepted the responsibility to provide easy access to updated versions of the WMO publications referenced herein.

2.2 Informative references

The following handbooks in Norwegian (distributed by DNMI) are standard equipment at all observing stations:

- DNMI: Meteorologisk Kode, SHIP, Maritime stasjoner
- DNMI: Meteorologiske koder for flyværtjenesten

3 DEFINITIONS AND ABBREVIATIONS

3.1 Definitions

Informative references	Shall mean informative in the application of NORSOK Standards.
Normative references	Shall mean normative (a requirement) in the application of NORSOK Standards.
Shall	Shall is an absolute requirement to be followed strictly in order to conform to the standard. Shall requirements shall preferably be used in all NORSOK standards. Non-compliance to shall-requirements shall be subject to acceptance by the client.
Should	Should is a recommendation. Alternative solutions having the same functionality and quality are acceptable to the client.

3.2 Abbreviations

CTD	Conductivity-Temperature-Depth Sensor
DNMI	Det norske meteorologiske institutt (Norwegian Meteorological Institute)
ICAO	International Civil Aviation Organization
METAR	Aviation routine weather report
Metocean	Meteorological and oceanographic
MOR	Meteorological Optical Range
NPD	Norwegian Petroleum Directorate
RVR	Runway Visual Range
SHIP	Report of surface observation from a sea station
SPECI	Aviation selected special weather report
UTC	Universal Time Coordinated
WMO	World Meteorological Organization

4 COMMON REQUIREMENTS

4.1 General

Procedures which ensures the proper functioning of the measuring and recording system described in this standard as well as instrument accuracy and calibration shall be established and maintained.

Qualified personnel shall carry out observations, select, install, check and maintain the equipment and repair any faults or malfunctions.

When new types of instruments are introduced, a notification shall be given to all regular receivers of data.