



Datasheet

Helideck Monitoring System 2.0

Observator has supplied many helideck monitoring systems during the past decades. In order to meet the high-demanding authority regulations and after listening to customer feedback, Observator has now launched HMS 2.0.

HMS 2.0 is a helideck monitoring system which is designed to measure and visualize all relevant weather conditions in order to ensure maximum safety during helicopter landing and take-off operations.

Compared with its precursor, HMS 2.0 has a compact design and is based on the Observator OIC (MeteoLink)-principle, which means a lower cost of ownership and reduced cabling during installation.

Installation of the HMS 2.0 system has been simplified as all relevant sensors can be connected directly to the central PC unit. HMS 2.0 is applicable on all kinds of helicopter landing platforms, such as on enroute (naval) vessels, platforms, buildings, heliports and windfarms).

Features

- Compact hardware design with a 'Plug&play' system
- Real time helideck weather and motion information
- Compliant with CAP-437, HCA, Norwegian (Norsok) BSL D 5-1, Canadian OPEG and Brasil Normam-27 helideck standards
- Options for remote access via web interface
- Alarm and weather forecast options
- Selection for aircraft, day / night and helideck category.
- Stoplight function
- Easily expendable with ATIS (Automatic Terminal Information System)-module

A complete HMS 2.0 system consists of:

- OIC-2020 19" industrial central unit
- OMC-DOL-HMS software
- Relevant weather sensors
- Additional ATIS module (when required)

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System information

The HMS 2.0 system (incl. software) meets the following requirements:

- The latest UK CAA CAP-437 (Standards for Offshore Helicopter Landing Areas, 8th Edition)
- Norwegian Norsok CAA BSL D 5-1
- Brasil Normam-27 helideck guidelines
- Canadian OPEG helideck guidelines
- Helideck Certification Agency (HCA) as described in Standards Helideck Monitoring Systems Rev8c

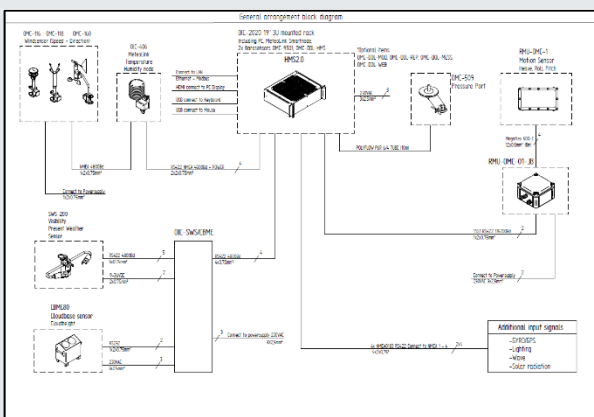
Standard HMS systems require the following parameters:

- Wind speed and direction
- Temperature
- Humidity
- Dew point
- Barometric pressure (QFH / QNH)
- Visibility
- Present weather
- Cloud height
- Motion (for floating rigs or vessels)

Where measured, the following information should also be included in the weather report: significant wave height.

By using several sensors based on our new MeteoLink-principle the connection of different sensors is simplified and cabling between these sensors is limited.

Offshore meteorological observations require devices designed to withstand the hardest environmental conditions (such as heavy vibrations, sea spray and extremes of temperature). With more than 30 years of experience, Observator knows the special demands for any particular application in many different markets.



OIC-2020 central unit

The OIC-2020 is a 19" 3HE subrack mounted industrial PC. With the available NMEA inputs it is easy to connect the relevant sensors directly to the PC.

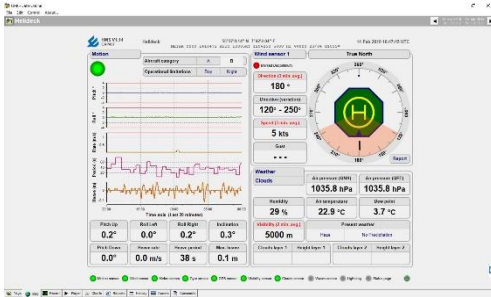


Features of OIC-2020

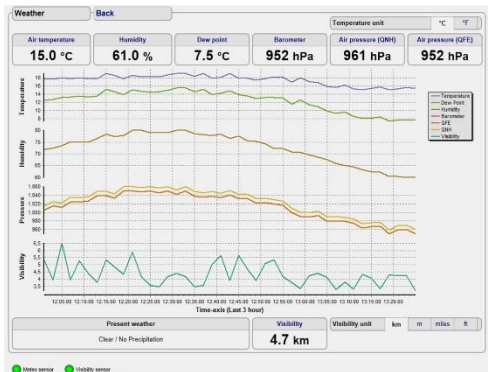
- Industrial PC with pre-installed software
- Height of only 3 HE
- Possible shared monitor and keyboard
- Inputs:
 - MeteoLink (1) wind, temperature, humidity
 - MeteoLink (2) Vis&Cloud, wave, motion
 - GPS
 - Gyro
 - ATIS input
- Outputs:
 - Alarm/Status relay outputs (3 pcs conform new CAP requirements), serial outputs to displays or third party equipment, modbus output
 - HDMI to monitor(s)
 - Keyboard and mouse connector
 - LAN connection
- Build-in dual barometric pressure sensors (process connector on the rare) pressure range: 800..1100 hPa, resolution 0.01 hPa and accuracy of 0.25 hPa with a long term stability of 0.1 hPa/annum

OMC-DOL-HMS software

OMC-DOL-HMS is a flexible software program and is used on many different applications. The software can combine meteorological data with ocean related and motion related data, so you will have all information available in one system.



All data can be stored and trends can be made visible. The data can be viewed on any pc with the OMC-DOL program viewer installed via a standard network.



With the additional OMC-DOL-REP option it is possible to generate weather reports (as per authority regulations):

Location Vessel Heading degrees

Lat Long

Date Time UTC

Wind degrees Speed knots Gust knots

Visibility metres Lightning Present Yes / No

Present Weather

Cloud amount Cloud Height feet

Cloud amount Cloud Height feet

Cloud amount Cloud Height feet

Cloud amount Cloud Height feet

Air Temperature °C Dew Point °C

Pressure QNH hPa QFE hPa

Significant Wave Height metres Significant Heave Rate metres/sec

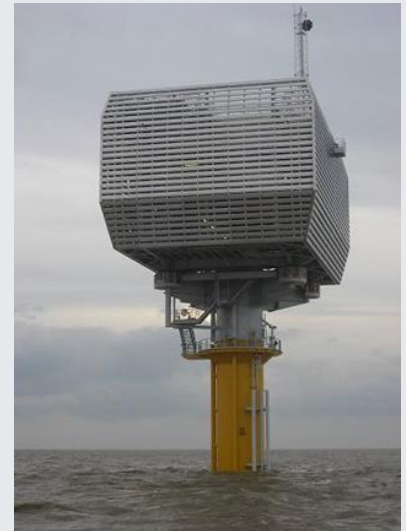
Pitch degrees up / degrees down Roll degrees left / degrees right Helideck Inclination degrees

Remarks

ATIS and HLS

The OMC-141 Automatic Terminal Information Service, or ATIS, is a continuous broadcast of recorded non-control weather information for unmanned offshore or wind energy platforms. The broadcast contains essential weather information like, wind information, temperature, humidity, visibility or any other information required by pilots. Helicopter pilots usually listen to an available ATIS broadcast before the final approach, in order have a safe landing on the platform. The pilot can, by using the VHF radio, request the actual weather information (by automatic voice message) from the unmanned station.

The system also offers the possibility to control the helideck lights from the helicopter by using a standard VHF radio.



Unmanned transformer station



OIC-2020 with OMC-141 ATIS module

The voice functionality in the Observator system follows the usual ATIS practice; however this practice is not described in standards and varies from country to country. The client should specify specific requirements.

More information is available is the OMC-141 datasheet which can be downloaded from our website.

Service, project support and training

On customer request, Observator can integrate the HMS 2.0 central PC in a full wired 19" cabinet or sub-racks. Also project engineering, Factory Acceptance Test (FAT), Site Acceptance Test (SAT), commissioning and service can be arranged by our own authorised engineers or service engineers with offshore licenses.

Weather forecast / Training

In cooperation with the Dutch company Meteo Group we are able to integrate the weather forecast module within OMC-Data-Online. With the same company, Observator offers a two day-training for offshore Met Observers conform the CAP-437 requirements. For more information please contact our sales team sales@observator.com.



Sensors

Wind speed and direction sensors



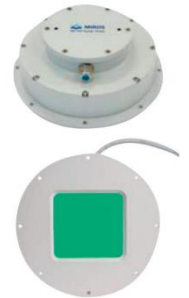
Temperature, humidity and dew point sensor

Visibility and Present Weather sensor



Cloud height sensor

Motion sensor



Wave height and frequency sensor

Welcome to the world of Observator

Solutions beyond expectations. That's what sets Observator apart. We believe in taking the extra step. Retaining our competitive edge, through innovation and uncompromised support, are key to success. As an ISO 9001:2015 certified company, we apply the highest quality standards to our products and systems.

Since 1924 Observator has evolved to be a trend-setting developer and supplier in a wide variety of industries. From instruments for meteorological and hydrological solutions, air and climate technology, to high precision mechanical production, window wipers and sunscreens for shipping and inland applications.

Solutions beyond expectations

Originating from the Netherlands, Observator has grown into an internationally oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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