



## UNDERCURRENTS 12

Welcome to the 12th issue of Undercurrents. In this edition, we highlight just some of the measurement projects we have been involved in since our last edition of Undercurrents. Geographically we showcase projects where MSI has assisted our clients to complete their operations by providing quality metocean measurements in Australia, Sierra Leone, Norway and Angola.

As usual, we welcome any comments or suggestions at [info@metoceanservices.com](mailto:info@metoceanservices.com). If you have any colleagues interested in subscribing to our newsletters they can do so by also e-mailing us or via our website. Interested clients, suppliers and colleagues can now also follow our activities on Twitter and Facebook, details of which are given in our 1st article.

Much of the information contained in this newsletter is available on our [website](http://www.metoceanservices.com) and we encourage you to check [www.metoceanservices.com](http://www.metoceanservices.com) regularly for updates.

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Not only do we post and tweet stories about MSI, we also retweet interesting stories relating to our industry and science.

### MSI Completes Real-Time Metocean Measurement Programme For Heerema



Metocean Services International (MSI) is pleased to announce that it has recently completed a 7 month project for Heerema Marine Contractors Australia Pty Ltd (HMC), in connection with Woodside Energy Ltd's North Rankin (NRB) development offshore Australia.

Initial involvement of MSI involved the provision of personnel to operate HMC equipment onboard the SSCV Hermod for the jacket installation in September. This was then followed by the provision of tide, wind, current and wave measurements for the NRB topsides installation. The topside of 23,600 metric tons, fabricated in Korea, was installed in 125m water depth with HMC's barge H851, currently the world's largest launch and float over barge.

Equipment provided by MSI included duplicate integrated current / tide / wind systems and two Datawell 0.9m directional waveriders. Data from the current / tide / wind system were transmitted in real-time via radio to 2 vessels, as well as via satellite to MSI's offices where it was uploaded onto a password-protected website for the client to access. Data from the Waveriders were transmitted via radio to 2 vessels. Data was used to monitor the metocean conditions to support the onsite operations.

In addition, MSI provided trial weather forecasts through our partners AMI for comparison with the measured data and another forecast provider.

### MSI Provides Real-Time System for Forecasting / Oil Spill Response



Metocean Services International (MSI) recently provided a real-time current measurement system for installation on the Maersk Guardian offshore Norway.

StormGeo AS have in May of this year supplied a totally integrated live current and weather forecasting system to the Norwegian oil and gas market through an advanced website. The system is primarily designed as part of the Operator's (in this case Faroe Petroleum) oil spill contingency analysis but has been valuable in daily operational support. The service provided live feed from the current meter but the next step will be to complement live data with historical data from the location for dramatically improved dispersion studies.

Current Expertise AS, our client in this project, provide both the installation and tailor made equipment solutions to StormGeo. The system provided current profile data in real-time, which was uploaded by CLS in France for processing and distribution to StormGeo to provide a web-based real-time current forecast.

The measurement system comprised a TRDI 300kHz ADCP, fitted in purpose-built inline frame. The ADCP was cabled via 100m armoured power / signal cable to a Campbell Scientific datalogger. The datalogger was fitted with an Ethernet module, allowing access to the data via the rig's IT system.

Speaking on behalf of Current Expertise, Stig Seland said " we believe this is the first time live current data has been supplied directly to a rig in Norway for daily use in operations as well as oil spill contingency preparation. Once deployed and configured, the system worked flawlessly for the duration of the exploration well."

## MSI Awarded 18 Month Weather Forecasting Contract For Leighton Contractors As Part Of The Gorgon Project



Metocean Services International (MSI) is pleased to announce that it has been awarded an 18 month contract to provide weather forecasting services to Leighton Contractors as part of their involvement in the Gorgon project.

Leighton Contractors in consortium with Saipem are carrying out the engineering, procurement and construction of the LNG Off-take Jetty and Marine Structures for the Gorgon LNG Project. Leighton is transporting the top platform structures from Indonesia to Henderson, south of Perth where they are installed into concrete caissons. The completed structures are then transported to Barrow Island using the heavy lift semi submersible Boabarge 33.

Transportation of the top platform from Indonesia has already commenced. There are nine topside planned voyages in and out of Australian Maritime Complex (AMC) Henderson facility whilst the Boabarge 33 has 14 voyages in and out of AMC Henderson facility planned commencing early September 2011.

MSI, through its agreement with Aerospace and Marine International (AMI), will provide both daily site specific 5 day rolling forecasts as well as 5 day tow route forecasts for the delivery runs. The forecasts include tabulated and graphically presented forecasts for wind speed (at 10m, 50m and Max Gust), wind direction, wind wave (direction, height and period), swell wave (direction, height and period) and significant wave (height and period) for Tow Forecast. Site Forecasts also provide air temperature and humidity in addition to these parameters. Forecasts are delivered daily via email and are available via a secure website. This service is also backed up by 24/7 email / phone access direct to the Duty Forecasters so that any events of concern that appear on the forecast can be discussed directly with the person producing the forecast.

Forecasts are generated using a combination of observational and forecast data. Observation data includes that from satellite, radar, land stations, ocean buoys, offshore structures and merchant ships whilst the forecast data includes that sourced from numerous global models including NCEP, NCOM and WW3 to name just a few.

AMI ([www.amiwx.com/offshore](http://www.amiwx.com/offshore)) was formed in 1991 to provide Optimum Voyage Routing Services to ships traversing the major oceans of the world. Through major development and recruitment campaigns AMI has become one of the most experienced companies in this field currently supporting nearly 5000 vessel voyages each year. [Full Story.](#)

## MSI Mobilises Metocean Measurement Systems In Angola For Maersk Oil Angola



MSI is pleased to announce that it has successfully completed mobilisation of a current mooring, as well as a metocean buoy, for Maersk Oil Angola in Block 16 offshore Angola in approximately 1,200m water depth.

The primary objective of the project is to collect site specific current, wave and meteorological data through the entire water column in sufficient detail to ensure that the design of a floating production system can be optimised.

The current mooring comprises a combination of current profilers, current meters and CTD, while the metocean buoy (an Axys 1.8m Watchmate) comprises wave, surface current and meteorological sensors.

Operations were conducted from the vessel Ragnhild K, mobilised from Luanda and MSI is being assisted by their local partners Zamexi Lda.

The moorings will be serviced at 3 monthly intervals over the period of a year, and data from the metocean buoy is being transmitted in real-time to MSI's offices, where it is placed on a password-protected website for the client to access.

## MSI Provides Real-Time Current Measurement Systems for Terminal Ops.



With extensive experience in Africa, Metocean Services International (MSI) has recently returned to Sierra Leone to undertake the installation of 2 real-time current measurement systems for African Minerals (AML).

Each system provides real-time current speed and direction to 3 receiving stations, 2 on vessels involved in loading / offloading operations and 1 in the marine superintendent's office.

Designing the system to meet AML's requirements, each of the integrated measurement systems comprises a Nortek Aquadopp current meter, Campbell Scientific datalogger and Satel radio modem. One of the systems also has a Keller pressure sensor installed to provide tide information in real-time. The receiving stations comprise Satel radio modems, with Campbell Scientific's LoggerNet software for data display.

The field team from MSI not only installed the system for AML but they also provided training to the AML personnel to ensure that they can independently utilise the system.

## MSI A Finalist in the Australian Export Awards



MSI is pleased to announce being a finalist in the 49th Australian Export Awards, having been crowned the winner of the 2011 Export Finance and Insurance Corporation Tasmanian Export Award for Small Business.

In its 49th year, the Australian Export Awards program comprises a series of eight State and Territory Export Awards recognising excellence and innovation in exporting in a range of industry sectors. The Tasmanian program is recognised as one of the most important events on the business calendar and is the state's highest recognition of excellence for Tasmanian companies exporting goods and services. It is also held in high regard throughout the world.

MSI was established in Hobart in 2006 to specifically target the Australasian market and is proud of the role that it plays, along with other Tasmanian businesses, not only to the local and national economy, but also in enhancing our state's reputation for companies that excel on the world stage. Having successfully operated in over 30 different countries worldwide to date and with nearly 60% of MSI's annual revenue being derived in the export market, MSI is pleased to be recognised by the Tasmanian Government in this manner. [Full Story](#).

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### Metocean Services International - Global Providers of Meteorological & Oceanographic Services in 30 Countries (and counting)

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