



DHI SOLUTION

RIDING THE WAVES

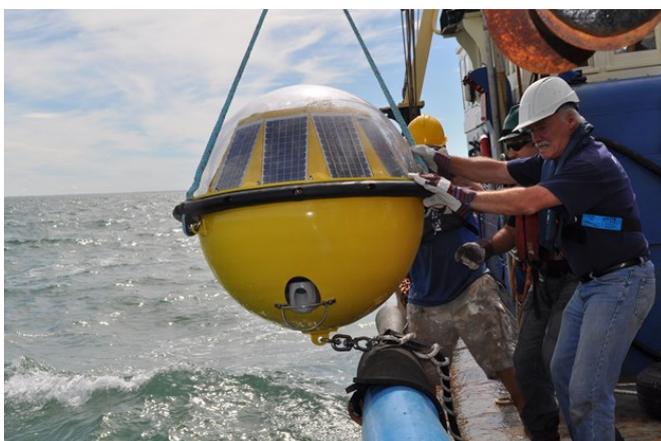
Providing expert advice on Triaxys combined wave rider & current profiler surface following buoy

Managing current measurements from a surface following buoy moving with the waves is not an easy task. The Triaxys buoy (from Axyx Technologies in Canada), however, makes it possible by combining a directional wave rider with a multilevel current profiler. While flexible, the Triaxys buoy is also one of the most complex buoys currently on the market. As a major operator of and service provider for the Triaxys buoy, we offer the necessary tools and manpower to ensure you get all the benefits that it has to offer.

EXPERT ADVICE ON TRIAXYS BUOY CONFIGURATION AND DEPLOYMENT

Since 2010, we have assisted with the operation of a number of Triaxys buoys in Northern Europe and the Middle East. Because of our experience with this type of buoy, we can provide the tools and services required to:

- configure the buoy
- deliver data from the buoy to you in real-time
- regularly service the buoy
- manage the buoy station



Our technicians deploying a Triaxys wave buoy in the North Sea.

SUMMARY

CLIENT

- Clients
- Port authorities
- Water managers and contractors
- Offshore and wind farm contractors and operators
- Hydrologists and meteorologists

CHALLENGE

- Lack of knowledge about the best method to transfer data from the Triaxys buoy
- Need to ensure adequate deployment and mooring of the Triaxys buoy
- Difficulty managing the large amount of wave and current data from the Triaxys buoy

SOLUTION

As an experienced operator of the Triaxys buoy, we can provide:

- All-inclusive support for setting up, configuring, deploying and servicing the buoy
- Easily accessible data storage and online presentation via dedicated website

VALUE

- Protection of investment
- Ensuring the most cost-effective data communication methods, saving money
- Improved ability to receive, manage and utilise buoy data

To begin with, we can help you decide on the most appropriate data migration method. Triaxys buoys can be equipped with a combination of satellite, general packet radio service (GPRS), or very high frequency (VHF) communication. When selecting the data delivery method, location and cost are vital factors.

A buoy close to the local infrastructure can operate via the mobile phone network. This is a cheap way of uploading the buoy data to your computer network. A buoy far away from the coast, however, requires a satellite transmission, which increases the cost. By utilising our previous experience working with the Triaxys buoy, we can provide expert advice based on which method is best for you.

Once you choose the means of communication, we can help you determine which oceanographic instruments to install. After you decide this, we will propose a budget and a schedule of deployment and service. Once you accept this, we will then:

- initiate purchase of the buoy
- test and configure the buoy to your specifications



Triaxys wave buoys waiting for deployment.

After the testing and configuration process, we provide the necessary tools and assistance to ensure optimal buoy deployment. This includes:

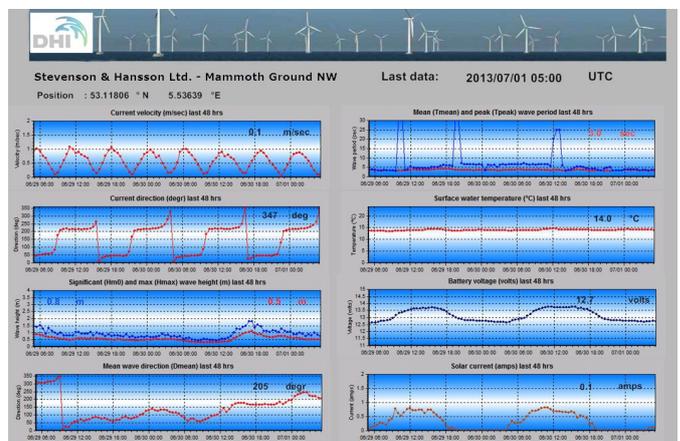
- designing the mooring
- handling the necessary arrangements with and obtaining permissions from the authorities
- estimating the best position of the buoy
- purchasing the necessary marker buoys and mooring tools, in addition to the buoy itself
- supervising the deployment of the buoy
- advising on the best solution for data migration from buoy to final destination, including filling out application forms for relevant telecommunication providers

DATA COLLECTION AND DISSEMINATION

Once deployed, the data collected from the buoy is sent at regular intervals to our service centre – located north of Copenhagen. The information is then stored in our database. In order for you to access this information, we will design and create a dedicated website, easily accessible via the Internet.

In addition to the dedicated website, we can also send the data directly to you based on your specific needs. The data can be delivered shortly after it is gathered or at regular intervals (such as once weekly or monthly). Furthermore, we can send out warning notifications with information about extraordinary events – such as malfunctions or if the buoy becomes adrift – to designated recipients.

Moreover, the collected data can be used as part of online decision tools and for driving long-term models. By using our modelling expertise, we can help ensure that you receive even more value from your Triaxys buoy.



Triaxys buoy data presented in real-time.

SERVICING THE TRIAXYS BUOY

To ensure your buoy stays in top working order, we also offer regular servicing of the buoy after deployment. This includes checking the remaining battery capacity. Although the buoy is equipped with solar panels, it is important to check the batteries in areas with low solar activity to ensure that the buoy keeps running. We can also check the mooring, which is subject to wear and tear over time. As such, it must be replaced at regular intervals.

By guiding you through the procurement, customisation and deployment process, we can help you take full advantage of the benefits of the Triaxys buoys. In addition, our continued servicing of the buoy ensures that the buoy continues to function correctly – now and in the future – protecting your investment.

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