



# Why weather intelligence is crucial for the offshore industry

Aban Drilling | BLG Logistics Wind Energy

**"Investing in robust weather technology will help win extra days on the project for your crew and vessel."**

Metocean conditions affect all areas of offshore operations, so a reliable and accurate forecasting tool is essential. It's crucial to plan for weather-related downtime accurately and avoid unnecessary or last-minute scheduling changes.

Falling oil prices have driven efficiencies throughout the offshore supply chain. Companies have been challenged to do more with less and to optimize their operations. For example, fixed budgets for offshore projects are increasingly common. Finish early, and it's essentially a bonus, but overrun and the additional budget comes from your bottom line.

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**"Using the NowcastingPro system and forecast, we have been able to identify additional weather windows to safely position our rigs, load our rigs onto heavy lift vessels, or commence and proceed with rig moves – all this when other forecasts advised us weather conditions would make it impossible. Thanks to the precise weather forecast, the useful weather window planning tool, and fast response from DTN, we can concentrate on what we do best, knowing that we can trust the DTN data."**

Aldo Vella, Senior Manager Marine Operations, Aban Drilling

### **Advanced weather technology**

These pressures are driving companies to look at every option possible to increase the days they can be at sea, including how accurate and reliable weather forecasts can help minimize expensive weather-related downtime.

Advances in weather technology mean the weather room processes more than ever before; where ten years ago forecast grid models had a grid spacing of 40km, now they're down to 10km. These advances enable meteorologists to provide more localized forecasting - essential for the offshore industry. At the same time, DTN can also scale up to higher resolutions as needed using dedicated, in-house models, nested on regional grids.

This approach builds confidence in the data, clearly demonstrating the forecast's accuracy.

### **Working safely while limiting downtime**

In the Offshore industry, whether in The North Sea, West Africa, South East Asia, GoM, Middle East or elsewhere, timely, accurate and actionable weather data is critical.

Working with a global weather authority can help offshore companies understand, with greater accuracy, the times and days where work is or is not possible. This approach can increase operating thresholds and maximize vessel operability on a project.

### **Understanding the weather forecast begins at the tender stage**

At the tender stage, bidding companies for offshore projects work with a weather authority to establish what they expect the weather to be throughout the year. They'll analyze the requirements based on the project and the vessels, such as maximum and significant wave height, swell period and direction, wind speed and wind direction. Based on the outputs, they will be able to establish their weather risk correctly and provide a more accurate cost estimate.



**“There are strict rules for the weather conditions in which we are allowed to transport the heavy foundations. To use personnel and material efficiently, we need accurate weather data, tailored specifically to our location”**

Andreas Wellbrock, Director, BLG Logistics Wind Energy

DTN will assist by explaining the approach to the metocean environment for a particular project with the bidding company, the marine surveyor on the project and the owner of the installation.

If the bidding company wins, then the whole process of preparing for the job begins. It's at this stage that companies will sit down with DTN to decide how best weather data can support the work they will be doing on the project.

Around 1-2 weeks before the job starts, DTN will start supporting with the daily weather forecasting services.

### **Reducing time and costs on projects is a priority across the offshore industry**

Decisions made on marginal weather conditions can have significant consequences on a project. It is important that these decisions are made with as much confidence as possible. DTN supports clients with marginal weather decision through our offshore weather services and dedicated software tools, such as NowCastingPro and Weather Window Planner.

With any offshore project, DTN will analyze the needs on a project-by-project basis. DTN will support the project with a variety of weather forecasting services and software tools, including daily weather

forecasting services, up to four times per day, helping the vessel to remain in position by reporting insight such as heavy seas, sudden changes in swell direction or changes in current direction.

NowCastingPro helps establish the weather risks, by providing hourly data, forecast out to five days. Forecasts are updated four times per day with a spatial resolution of 10km. It also has global coverage, including all major oil and gas basins.

Efficiency drives mean that some companies choose the cheapest supplier, regardless of quality and accuracy. But this can be a false economy, as more accurate data and the right service level mean you can get the best out of your vessels and your team. By using accurate weather data as part of project planning, it's possible to see whether the risk is going to be a problem for the project. And crucially increase the operability of your vessel. On average DTN has proven to increase workable days for our clients by two days per project through our weather room expertise, service level, and accuracy in data.

**"We have been using NowcastingPro for several years and time and time again, it has delivered when we need it to. Forecasts are not only extremely accurate, but provide the detail and visibility we need, to make some very tough decisions. Particularly when planning rig moves, NowcastingPro has saved us from significant cost and delays in Waiting on Weather downtime by helping to identify optimal rig move windows, even in very marginal weather conditions."**

Aldo Vella, Senior Manager Marine Operations, Aban Drilling

Investing in robust weather technology will help win extra days on the project for your crew and vessel. Failing to invest in weather services can mean that you don't have the data required to make the close calls on vessels, costing time and money.

### **The future of weather intelligence for offshore**

As well, in this last year, there has been a growing focus on digitalization, bringing people back from the offshore area to the onshore area. Instead of flying teams in and out and having crew changed, more people are working remotely from a site.

The team at DTN is continuously innovating and investigating how to make an even bigger difference to our clients, enabling offshore companies to make even more informed decisions at critical moments in their operations. Just one example of this is taking the learnings from successful software products, such as NowCastingPro and the Weather Window Planner, and looking at how to take the best of both worlds, and introduce a single solution to one of the key pain points offshore: decision making during marginal weather conditions.