THE IMPORTANCE OF ACCURATE MARINE WEATHER FORECASTS FOR OFFSHORE OPERATIONS

Captain Iain MacLeod is a New Zealand-based Master Mariner. In late September 2017 he captained the 16,000 hp tug Terasea Falcon which, along with five other vessels, provided static heading control for a floating liquefied natural gas platform (FLNG) offshore Western Australia.

The crewing and day-to-day management of the vessels was provided by Programmed Marine Services in Perth.

Terasea Falcon was the first of four ground-breaking deep-sea tugs to be commissioned by Singaporean-based maritime company POSH Terasea, who aim to set new standards in international long-distance towing, positioning and salvage.

The Terasea Falcon was tasked with preventing the platform from ‘swinging’ while contractors connected the undersea pipelines and control cables to the platform. Captain MacLeod then transferred the tug to the customer’s base in Darwin to offload equipment, and then onto Singapore. During the seven week operation, Terasea Falcon was located approximately 800 metres off the platform connected by a massive 83 mm diameter wire. Terasea Falcon and three other tugs were applying a constant load of between 70 and 120 tonnes in order to maintain the platform’s position.
Pierre Foucaud is a marine weather consultant with MetraWeather, and one of the team of meteorologists providing marine weather forecasts for the site. He spoke with Captain MacLeod.

"As an experienced mariner, I have seen a lot of forecasts come through. I thought the information for this site was very well-presented, and very easy to review. The first thing I always go to is the weather. The wind, the direction and force, and from there everything else falls in.

"In that part of the world (offshore WA) I am very concerned about tropical cyclones. We were fortunate that it was a bit early in the season for cyclonic activity, but you never know - and insights about what is coming are important to us. My biggest fear is the squalls. I've been offshore from Dampier in Western Australia when squalls come through and they're nasty. You can be alongside a rig minding your own business, when the next thing you know it's 50 knots and you're getting blown on. It can be nasty.

"In the seven weeks I was on Terasea Falcon, I couldn't find any fault in the accuracy of MetraWeather's marine weather forecasting. The wind direction and speed were pretty close most of the time, and we could clearly see trends that were never beyond the margin of error from our perspective. In my experience, a site-specific forecast is much better. They're much more accurate. When you look at a generically-generated forecast, they offer minimal value," concludes Captain MacLeod.

MacLeod received communications on the Terasea Falcon via satellite. He explained that it is relatively low-tech, and he didn't have the capability to navigate around a website. He had no problems downloading MetraWeather's forecasts and that was an important consideration when larger files could take hours to download.

"I also believe that being able to speak directly with the forecaster about the situation is very valuable. Marine weather is one of the most difficult events we face. I have responsibility for the safety of my crew and the vessel," added MacLeod.

"What you have with this particular platform is that it's in a benign part of the world for nine months of the year, and then cyclones may come through! Oil companies are very good operators and very safety-conscious. When I was onsite, the forecasts were fine and I couldn't fault them. I can't ask for any more than that. That's what we want – accurate marine forecasting that's well-presented in a form we can use with confidence."

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