

Case Study: Weather Risk Assessment

1.0 Facts

Client:
Various

Location:
Europe

Category:
MetOcean Consultancy

Facts:
Weather Risk Assessment

Duration:
N/A

Completion Date:
N/A

2.0 Introduction

During installation of offshore subsea cables, one of the major risks to the project progress is the risk of not being able to lay or trench the cable due to adverse weather conditions, such as high wind speeds, large wave heights, strong currents, low visibility and so on.

This Waiting on Weather (WoW) has a huge impact on the costs of the spread of vessels in the field, and may invoke unacceptable delays for successive operations, which may be shifted into the “bad weather season” because of the previously experienced WoW.

Therefore, during the tendering and project process, installation contractors assess the risk of WoW and provide the computed 50%, 80% and 90% level (P50, P80, P90) of non-exceedance of expected WoW days per planned activity. Next, the contingency is integrated into the project planning.

In order to be able to verify the validity of these provided P50, P80 and P90 values, Primo Marine performs in depth reviews of the contractor’s methodology, input and output of the full program WoW computations and checks the integrated contingency in the contractors’ planning.

3.0 Summary

The in depth review of estimated Waiting on Weather days as assessed by installation contractors.

4.0 Scope of Work

Primo Marine provides Metocean expertise in regard to Weather Risk areas. Principally the following activities are performed:

- Review operational limits and required weather windows for all vessels and equipment proposed for survey, cable installation, pre-lay and post-lay operations purposes.
- Review 3rd party computational methods for deriving estimated WoW days as well as the integration of the weather contingency into the planning.
- Provide Clients with an independent estimate of P50, P80 and P90 values of estimated WoW days per planned activity, for comparison purposes.

5.0 Highlights

For the independent check on P50, P80 and P90 WoW days, an in-house developed sequential weather downtime tool can be applied on the full offshore cable installation program. The program has been developed in cooperation with Metocean Consult.

6.0 Quotes

From one of our Clients:

“Primo Marine has provided a very fine piece of work in detailing weaknesses and risks in time schedules provided by tenderers. This has enabled the project to address this with the tenderers prior to contract award and in that way minimize risk to the overall project time schedule.”

