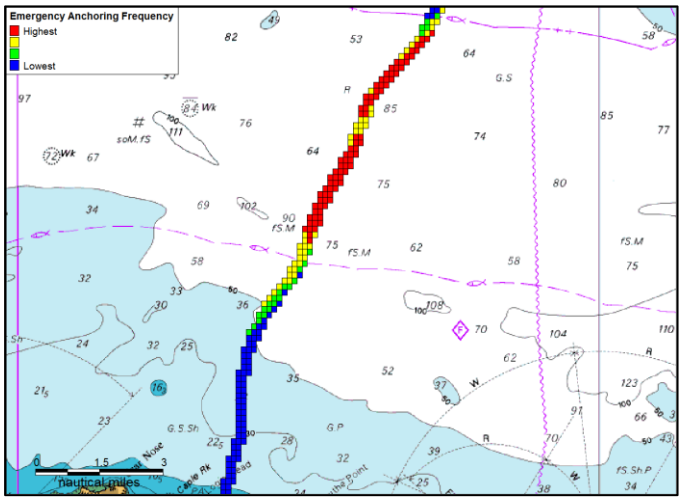
Subsea Cable Safety

Comprehensive risk assessment for subsea cables

Route Selection

When selecting a new cable route or assessing potential safety aspects associated with a cable route, there are many potential risks that need to be taken into consideration.



(Emergency anchoring in relation to a cable route)

Modelling

Confidence in a cable route is integral to the security of the cable. Anatec's suite of cable risk assessment models can assist operators in choosing the safest location for their cable projects. For new routes it can help decide and/or optimise on the best route for a cable, as well as offering advice on the options available to protect it once it has been laid.

The cable risk assessment includes complete analysis of the possible risk factors related to the cable. Utilising real time shipping survey data, it is used to identify vessels routeing and anchoring in the vicinity of the cable, and can include details on the types and sizes of these vessels.

Anatec's models can calculate the risks associated with dragged anchors and emergency anchoring to provide a risk frequency profile along the cable route. Comparative risk reviews can be carried out based on penetration depths in different seabed substrates allowing clients to evaluate different mitigation options (i.e. different burial depths, mattressing, rock dumping etc).

Dropped object scenarios can be analysed to determine the sections along the cable route that are at risk, and the potential damage this could cause.

The fishing activity in the vicinity of the cable can be analysed to assess fishing-cable interaction frequencies. The possible impact energies and pullover forces can be calculated, as well as expected fatality rates for fishermen.

Modelling options:

- Cable risk assessment
- Cable route selection
- Anchor dragging model
- Dropped objects model
- Fishing risk model
- Vessel foundering
- Emergency anchoring model

Managing Risk

To manage the risks associated with vessels operating in the vicinity of cables, Anatec offer software and hardware solutions to allow clients to monitor and manage these hazards. We have experience in risk analysis, and have been involved in successful cable projects for Centrica, Shell, Statnett, RTE, SSE Renewables and National Grid, among others.

Contact us below for more information.

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