

## CGGVERITAS / TALISMAN CASE STUDY - SEISMIC ACQUISITION

### Project context

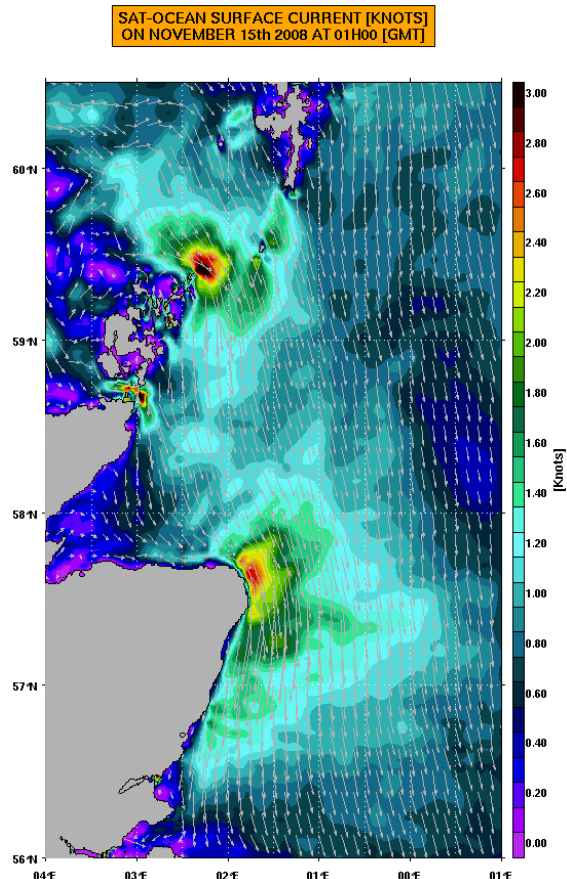
The largest independent Canadian oil and gas producer, Talisman boasts a diversified, global portfolio. Its main operating areas are North America, the North Sea and South East Asia. In the North Sea, Talisman manages a total 39 oilfields, most notably through the Bleo Holm FPSO in the production hub of Ross Field. First oil there was achieved in 1999, and production was further expanded by significant oil discoveries in the adjacent Blake field.

Ten years into production, Talisman needed to gain an updated picture of the Ross Field subsurface as part of its fluid monitoring of the reservoir. One of the key objectives was to identify potential well placements resulting in maximization of the Ross Field life-cycle production. To that end, Talisman contracted the CGGVeritas Search medium-capacity 3D vessel for a seismic survey of the block during autumn 2008.

### Potential issues identified

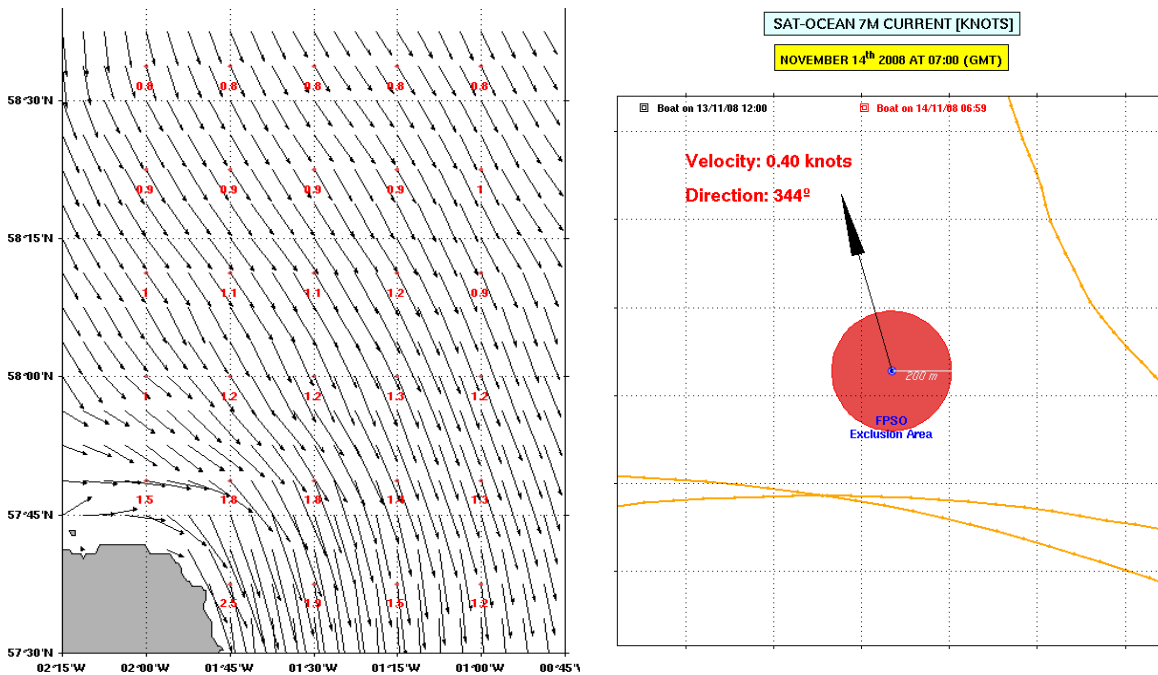
Located in the outer Moray Firth, 60 km of the Scottish coast and the St Fergus terminal, the Ross field area is generally prone to a tidal current. Windy periods of time however yield other currents, which make it difficult to match adjacent lines during the acquisition. Additionally, the Bleo Holm FPSO is centrally located in the field, so several close passes were expected for this survey.

To both optimize the infill ratio and avoid that seismic cables collide with the FPSO structure, CGGVeritas needed high-resolution information about ocean currents. Having already worked several times with SAT-OCEAN in various locations, CGGVeritas recommended the use of SAT-OCEAN services for the survey



## SAT-OCEAN solutions

Throughout the survey, SAT-OCEAN produced daily 48-hour forecasts of ocean current magnitude and direction at the Search streamers depth (7 m). This information was made available on a secured web page and updated on a daily basis. SAT-OCEAN also delivered a “close pass watch” service to help with the management of close passes.



SAT-OCEAN solutions were selected for their ability to provide accurate full absolute currents, and not simply tidal information. “We have never found any mismatch between their forecasts and the vessel measurements”, says Pierre Germain, Chief Nav from CGGVeritas M/V Search. “During the first two weeks, it appeared that the current was mainly tidal related but even when we started to experience some bad weather conditions in the following weeks, their modeling integrating meteorological conditions cling to the reality”.

“Overall, SAT-OCEAN services proved very useful in the context of the Ross Field survey, and allowed us to complete several very close passes without any incident” analyzes TALISMAN. “We are particularly appreciative of CGGVeritas for having recommended and operated on our behalf the SAT-OCEAN currents prediction service.”