

# BMT Joins Forces with Met Office and Oceanweather

BMT ARGOSS, UK, has announced a joint initiative with the Met Office, the UK's national weather service, and Oceanweather Inc, to help support oil and gas majors with offshore engineering design and operational planning in the mid-Atlantic region. The main deliverable of this project, entitled the Mid-Atlantic Current Hindcast (MACH), is a 20-year high-quality ocean current reanalysis for the mid-Atlantic region, with nested high-resolution grids covering principal oil and gas concession areas.

Robin Stephens, Metocean Group Manager at BMT ARGOSS, explained that in recent years, ocean modelling technology has significantly advanced - hence the importance and timeliness of conducting a comprehensive, new West Africa ocean current hindcast. Much of the oil and gas activity in this region is in deep water and involves the design, installation and operation of floating production systems with substantial subsea components such as risers and moorings, both of which are very susceptible to current-induced loadings. By simulating ocean current, temperature and salinity in profile, BMT can provide a long-term simulation which has been validated and optimised against data that has been measured in the region.

Following completion of a pilot two-year integration and a detailed validation study against available concurrent in-situ current measurements, a full 20-year integration is underway to produce an ocean current hindcast database, suitable for use in offshore engineering and operational planning.

With an initial focus on the West Africa region, the hindcast will provide a strong framework for conducting fine resolution modelling in other parts of the mid-Atlantic basin, including Brazil.

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