Turbulence Across The Flight Deck

There are many different organisations and guidelines governing the operating limits of offshore helidecks, but all of them ultimately refer back to the standard issued by the UK Civil Aviation Authority – CAP437. This standard governs strength requirements, safety equipment provision, lighting and marking, and fuelling arrangements, as well as the safe limits on airflow across the deck.

Safety First

MMI can provide a complete audit of the safety and structural provisions of a new or existing helideck. We can also provide an assessment of the airflow requirements. From Issue 5 of CAP437 on, the limits on turbulence across the deck changed from being a vertical velocity component to a statistical assessment of gust velocity – something it is impossible to assess accurately in a wind tunnel. Instead, we use advanced Computational Fluid Dynamics (CFD) techniques to model airflows and predict the effect of different design configurations. CAP437 also places limits on the temperature variations and air quality on the helicopter approach path, and the same CFD models can be used to ensure that flares and exhaust plumes from the facility do not breach the guidance.

Why MMI?

Small features can lead to significant increases in turbulence, but our pragmatic engineering approach helps our clients by suggesting design solutions that will meet the safety requirements.