

## Adverse Conditions

We do not have a specific adverse Weather Policy for offshore crane transfer. There are several reasons for this.

1. Many of the operators and contractors using personnel transfer devices have different tolerances and procedures for their transfer operating envelopes. We try not to place our own limits about sea states and weather conditions in that this may conflict with those policies implemented by said companies.
2. There are so many variables in determining a safe working envelope for offshore crane transfers. These variables make it difficult to give a "cut and dried" number for wind and sea states.

### Examples:

What is the size of the vessel involved? Transferring to or from a 300 ft supply boat in heavy seas is a much different operation than performing the same transfer on a small crew boat.

- What is the training and experience of the personnel being transferred?
- What is the size and condition of the landing area?
- What are the training, experience and certification of the crane operator?
- Is the transfer taking place on the windward or lee side?
- What is the visibility for the crane operator?
- Does the vessel(s) have DP capability?

- Does the crew being transferred, the boat captain and the crane operator agree (at their pre-lift meeting) that this transfer can be done safely? In our opinion, this is the most critical factor in a rough sea, bad weather transfer decisions.

As an example, a major oil company recently had to perform an extremely large number of crane transfers here in the Gulf. Their operating window was 30 knots maximum. I have seen this number (30 knots) many times as it coincides with general crane operating maximum working conditions in many areas of the world. What this major operator found was that they were slightly exceeding 30 knots in a large percentage of days. What they also found was that (because they had good equipment, big DP vessels, well trained crews and operators and a good transfer system) they could safely increase the envelope to 35 knots. Things went extremely well, they transferred over 47,000 personnel during this phase of the operation and there were zero incidents. If we had recommended a 30 knot maximum in our procedures, it would have been in conflict with their (very safe and well thought) out transfer operation.

In another scenario (small boat, no DP, inexperienced crew etc.) a 35 knot wind would not be a safe envelope. In fact a 30 knot wind would probably not be a safe transfer condition. In this second scenario, if we were to state in our policy that "30 knots is the maximum"- these transfers might be performed because they fit within the envelope we suggested and that might have created a hazardous condition.