



# Helideck Limitation List (HLL)

## Part C Limitations for Operations to Moving Helidecks

### Pitch, Roll, Inclination and Heave Rate:

Notes:

1. Acceptable parameters are up to and including the limits given below, (pitch and roll figures are half amplitude, heave rate (SHR) is given in metres per second)
2. Limitations for helicopters not included in the table below are to be requested from the HCA Helideck Steering Committee (HSC)
3. Category 3 vessels (Bow mounted helideck) operating with the helideck downwind may be upgraded to Category 2 at the discretion of the helicopter commander
4. Category 2 vessels (Stern helideck) operating with the helideck upwind should be downgraded to Category 3

**Vessels with Midship helidecks are always Category 2**

5. FPSO night operations – use Category 1 “Night Other Vessels” limitations
6. Stable deck conditions, when applied, assume a maximum of 1 degree pitch & roll and 0.4 m/s SHR

Aircraft Category		Helideck Category								
		1			2			3		
		P/R	INC	SHR	P/R	INC	SHR	P/R	INC	SHR
A	DAY	±3	3.5	1.3	±2	2.5	1.0	±2	2.5	1.0
	Night Semi-Sub	±3	3.5	1.0	Not Applicable			Not Applicable		
	Night Other	±2	2.5	1.0	±2	2.5	0.5	±1*	1.5*	0.5*
B	DAY	±4	4.5	1.3	±3	3.5	1.0	±3	3.5	1.0
	Night Semi-Sub	±4	4.5	1.0	Not Applicable			Not Applicable		
	Night Other	±3	3.5	1.0	±2	2.5	0.5	±1.5*	2.0*	0.5*

\* Night operations to Category 3 vessels are not permitted in UK waters.

Key:

**P/R** = Pitch and Roll (deg); **INC** = Helideck inclination (deg); **SHR** = Significant Heave Rate (m/s);

For tanker mooring buoys (whose deck movement is measured by inclination rather than pitch and roll) the inclination limits are ±2° by day and ±1° by night regardless of aircraft category.

#### Aircraft Category:

**A = S92, EC225, AS332 Series, AW189**

**B = AW139, S76 series, AS365 Series, B212, B412, EC135, EC145, EC155, EC175, AW169.**

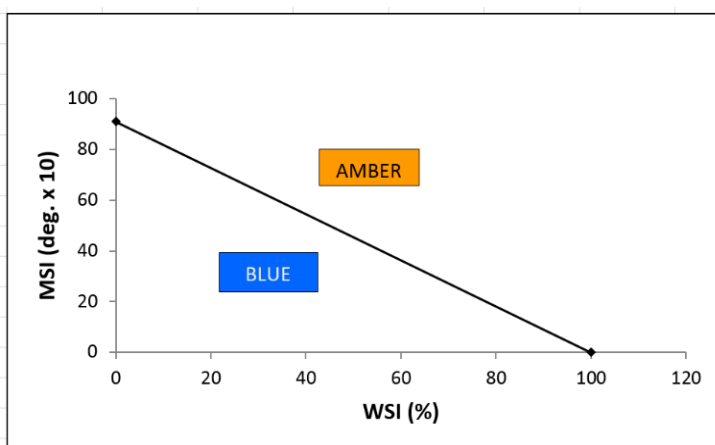


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## Helideck Status:

**Prior to landing**, the HMS repeater lights indicate the status of the helideck motion as follows:

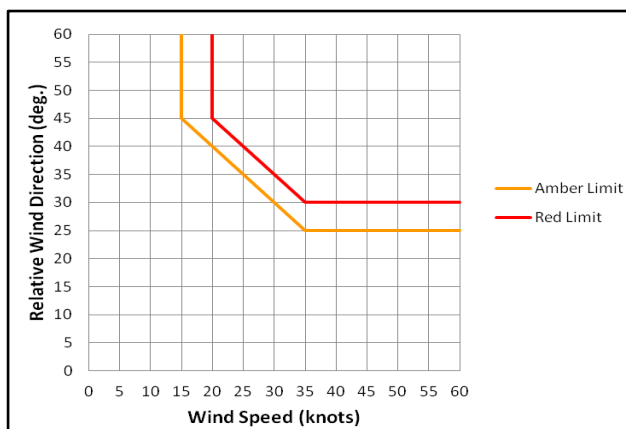
- = safe to land (PITCH, ROLL, INCLINATION, HEAVE RATE and MSI/WSI all within limits).
- = **do not land** (PITCH, ROLL, INCLINATION or HEAVE RATE out of limits).
- = land with caution (MSI/WSI **only** out of limits). Consider employing revised helideck handling procedures – see Appendix A of HMS standard Rev.9c or later for guidance.



- The Motion Severity Index (MSI) is based on helideck accelerations and effectively represents the dynamic helideck inclination.
- The Wind Severity Index (WSI) is the 10-minute mean wind speed expressed as a percentage of the maximum safe value (43 kts).
- The current MSI/WSI limit is a generic limit applicable to all helicopter types.

**After landing**, the HMS repeater lights indicate the relative wind direction (RWD) status as follows:

- ⚡ = slow blue flashing - HMS in 'on-deck' mode, relative wind direction is within limits.
- ⚡ = fast AMBER flashing - relative wind limit approaching (within 5° and/or 5 kts of the limit).
- ⚡ = fast RED flashing - relative wind limit exceeded.



- The MSI/WSI limit (above) is predicated on the relative wind direction being maintained within the RWD red limit.
- See Appendix A of HMS standard Rev.9c or later for guidance on how to react to flashing amber/red repeater lights.



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