Craft pull (Bollard pull):	Yes ☐ / No ☐
Craft trim:	Yes ☐ / No ☐
Video Internal/External:	Yes ☐ / No ☐
Still Photos: Internal/External:	Yes ☐ / No ☐

SUPPORT CRAFT	
Confirm if support craft are required.	
Support craft	Yes ☐ / No ☐
Details of support craft (LCU, LCVP, CSB, RIB, Inflatable, other):	

SPECIALIST EQUIPMENT / SUPPORT REQUIRED
(Detail as required. ie Stop watch, GPS data loggers, load cells, noise meters etc)

COMMUNICATION		
Confirm the communications to be used.		
IMM	Yes ☐ / No ☐	Channel No:
Other (Mil coms/Mobile):	Yes ☐ / No ☐	Details:

TRIAL / CRAFT SOPs and STANDING ORDERS	
Confirm the following.	
The craft will be operated during the trials iaw the craft BR and SOPs:	Yes ☐ / No ☐
Trials will be conducted iaw host unit SOPs & SOs:	Yes ☐ / No ☐
Trials conducted in Military Training Areas will be iaw SOs:	Yes ☐ / No ☐
Trials conducted iaw all relevant legal guidelines and regulations:	Yes ☐ / No ☐

RISK ASSESSMENTS	
Confirm the following.	
All Risk assessments conducted and recorded:	Yes ☐ / No ☐
Reference:	

TRIAL WILL BE CANCELLED ON THE FOLLOWING CONDITIONS	
Confirm the trial will be ceased on the following.	
Sea state exceeds: SS ___ / ____m	Yes ☐ / No ☐
Wind state exceeds: Sustained _ kts	Yes ☐ / No ☐
Loss of safety communications.	Yes ☐ / No ☐
Craft material state failure (inc. engine warnings).	Yes ☐ / No ☐
Craft stability is unacceptable.	Yes ☐ / No ☐
Crew injury or MOB.	Yes ☐ / No ☐

SEA STATE

The sea state will be assessed against NATO STANAG 4149 Table F-1.

TABLE F-1 – NATO SEA STATE NUMERAL TABLE FOR THE OPEN OCEAN NORTH ATLANTIC

Sea State Number	Significant Wave Height (m)		Sustained Wind Speed (Knots)*		Percentage Probability of Sea State	Modal Wave Period (sec)	
	Range	Mean	Range	Mean		Range**	Most Probable***
0 – 1	0 – 0.1	0.05	0 - 6	0.5	0	–	–
2	0.1 – 0.5	0.3	7 - 10	3.5	7.2	3.3 – 12.8	7.6
3	0.5 – 1.25	0.88	11 - 16	8.5	22.4	5.0 – 14.8	7.5
4	1.25 – 2.5	1.88	17 - 21	19	28.7	6.1 – 15.2	8.8
5	2.5 – 4	3.25	22 - 27	24.5	15.5	8.3 – 15.6	9.7
6	4 – 6	5	28 - 47	37.5	18.7	9.8 – 16.2	12.4
7	6 – 9	7.5	48 - 55	51.5	6.1	11.8 – 18.5	15.0
8	9 – 14	11.5	56 - 63	59.5	1.2	14.2 – 18.6	16.4
>8	>14	>14	>63	>63	<0.05	15.7 – 23.7	20.0

*Ambient wind sustained at 19.5 m above surface to generate fully-developed seas. To convert to another altitude, H_2, apply $V_2 = V_1 (H_2/19.5)^{1/7}$

**Minimum is 5 percentile and maximum is 95 percentile for periods given wave height range.

***Based on periods associated with central frequencies included in Hindcast Climatology.

BRd6600 – Royal Marines Landing Craft & Small Boat Operations Table 4-3, usefully adds descriptive terms to the sea state figures.

Table 4-3. Maritime Forecast Sea State Code

STATE OF SEA CODE FIGURE	DESCRIPTIVE TERMS	METRES	HEIGHT* FEET (APPROX)	
0	CALM (GLASSY)	0	0	* The average wave height as obtained from the larger well formed wave of the wave system being observed.
1	CALM (RIPPLED)	0-0.1	0-1/3	
2	SMOOTH (WAVELETS)	0.1-0.5	1/3-12/3	
3	SLIGHT	0.5-1.25	12/3-4	
4	MODERATE	1.25-2.5	4-8	
5	ROUGH	2.564	8-13	
6	VERY ROUGH	4-6	13-20	Note. The exact bounding height is to be assigned to the lower code figure e.g. a height of 4 metres is coded as 5.
7	HIGH	6-9	20-30	
8	VERY HIGH	9-14	30-45	
9	PHENOMENAL	OVER 14	OVER 45	

HARBOUR ACCEPTANCE TRIAL

Survey and Trials form 2A	HARBOUR ACCEPTANCE TRIAL	V 1.0 16/10/23

HARBOUR ACCEPTANCE TRIAL		
The craft Harbour Acceptance Trial must be conducted iaw the craft's BR pre-sailing checks. The following lists highlights relevant areas to check.		
Hull.	Visual inspection. Check for any sign of damage.	Yes ☐ / No ☐
Collar.	Visual inspection. Check the collar is not damaged and secure to the hull. For RIB floatation collars check it is evenly inflated.	Yes ☐ / No ☐
Deck.	Visual inspection. Check for damage. Ensure deck is clear and miscellaneous items are stowed away.	Yes ☐ / No ☐
Lifting points.	Visual inspection. Check for damage.	Yes ☐ / No ☐
Consoles.	Visual inspection. Check console secure to deck and free from damage.	Yes ☐ / No ☐
Seating.	Visual inspection. Check seats are securely fixed to the deck. Check condition of foot straps where fitted.	Yes ☐ / No ☐
Hatches.	Visual and functional inspection. Check they are functional and are secure.	Yes ☐ / No ☐
Fire Fighting.	Visual inspection. Check fire alarm system is undamaged and operational. Check fixed and portable fire extinguishers are in date and undamaged.	Yes ☐ / No ☐
Bilges.	Visual inspection. Confirm areas clean and free from debris and liquid.	Yes ☐ / No ☐
Bilge System.	Visual and functional checks iaw BR.	Yes ☐ / No ☐
Fuel and oil systems.	Visual inspection and functional checks iaw BR. Confirm hose fittings and pipework secure. Check for contamination in tanks and filters. Confirm fuel volume carried meets requirement for the trial.	Yes ☐ / No ☐
Engines & Gearbox.	Visual inspection and functional checks iaw BR. Confirm in good condition, equipment is secure, and oils topped up as required.	Yes ☐ / No ☐
Engine controls and instrumentation.	Visual inspection and functional checks iaw BR. Confirm correct operation of the controls.	Yes ☐ / No ☐
Steering.	Visual inspection and functional checks iaw BR. Check that the steering is unobstructed and free to move from hard over port to hard over starboard.	Yes ☐ / No ☐
Electrical System.	Visual inspection. Ensure all cabling correctly secured and terminated.	Yes ☐ / No ☐
Batteries.	Visual inspection. Check for any signs of damage and lose terminals. Confirm batteries are securely tied down.	Yes ☐ / No ☐
Navigation lights.	Visual and function inspection. Check for damage and confirm all functioning correctly.	Yes ☐ / No ☐
Compass.	Confirm compass swings completed, deviation card provided.	Yes ☐ / No ☐
Navigation system.	Visual inspection and functional checks. Confirm latest charts loaded on chart plotters.	Yes ☐ / No ☐

Communications - External	Visual inspection and functional checks of fixed and portable communication equipment. Confirm operating channels and power settings for intended transmission range.	Yes ☐ / No ☐
Communications - Internal.	Visual inspection and functional checks of internal communication system.	Yes ☐ / No ☐
Mast and antennas.	Visual inspection. Check for damage to mast and antennas. Confirm all antennas secured.	Yes ☐ / No ☐

MISCELLANEOUS EQUIPMENT	
The craft iaw its relevant BR must carry emergency and repair equipment. The following list highlights the equipment that should be carried. Confirmation of the full list must be made with reference to the craft BR.	
Fire extinguishers x2.	Yes ☐ / No ☐
Paddles.	Yes ☐ / No ☐
Inflation bellows.	Yes ☐ / No ☐
Sea anchor and warp.	Yes ☐ / No ☐
Hand-held searchlight/signalling lantern.	Yes ☐ / No ☐
Compass.	Yes ☐ / No ☐
Mooring warps.	Yes ☐ / No ☐
Collar repair kit.	Yes ☐ / No ☐
Bilge pump handle.	Yes ☐ / No ☐
Emergency steering tiller.	Yes ☐ / No ☐
Emergency inflation bladders (2 off).	Yes ☐ / No ☐
Rescue throwing lines (2 off).	Yes ☐ / No ☐
Lanyard for Deadman's Switch.	Yes ☐ / No ☐
Radar reflector.	Yes ☐ / No ☐
First aid kit in waterproof case (must reseal after use)	Yes ☐ / No ☐
Rescue flares	Yes ☐ / No ☐

LIFE JACKETS, PPE AND SAFETY	
Confirm the following:	
Life Jackets. (Confirm all PAX are supplied and wearing appropriate size, type and in-service dated maintained life jackets)	Yes ☐ / No ☐
PPE. (Confirm all PAX are aware of the environmental conditions of the trial and wearing appropriate PPE ie Eye protection, & clothing appropriate for weather conditions)	Yes ☐ / No ☐
Safety Brief. (Confirm all PAX are briefed on the trial conduct and personal safety (WBV) guidance.)	Yes ☐ / No ☐

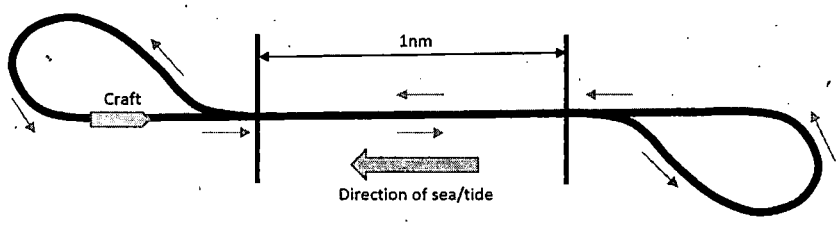
PAX ON BOARD	
A nominal of those on board the trials craft is to be taken and details held at the trials host base.	
Role	Names
Coxswain:	
Second Coxswain/Crew:	
MOD/PDH representative:	
Contractor support representative / engineer:	
Visitors:	

SEA ACCEPTANCE TRIAL

Survey and Trials form 2A	Speed Trial	V 1.0 16/10/23

Boat Type:	Boat Number:	Trial Date:
Trials Location:		

Sea State:	Wind Force:	Wind Direction:	Air Temperature (°C):	Sea Temperature: (°C):
Craft loaded condition:	Weight of craft (Kg):	Ballast added (Kg): Type of ballast:		Fuel (ltr):
Time trial started:		Time trial finished:		



Craft engines are to be run in and at operating temperature. The craft is to accelerate up to its speed. The craft is to maintain its maximum speed for a 1nm distance. (Distance to be established using measured mile markers or GPS chart plotters.) The craft is to conduct a total of 3 runs sailing a 1nm transit in to the sea and 3 runs sailing a 1nm transit with the sea. The time to complete each run is to be recorded. The average speed of the craft is to be calculated from the recorded data.

Engine 1 = Single or Port Engine. Engine 2 = STBD Engine.		Trial Runs					
		Run 1	Run2	Run 3	Run 4	Run 5	Run 6
Engine 1	RPM						
	Oil (BAR)						
	FW Temp (°C)						
Engine 2	RPM						
	Oil (BAR)						
	FW Temp (°C)						
Time to complete the run (seconds)							
Average Speed (knots)							
Average speed of Runs 1-6 (knots)							

Did the trial speed recorded meet the craft requirements as detailed in the craft's BR	Yes ☐ / No ☐

General trial observations	
Did any mechanical defects or alarms occur during the trial?	Yes ☐ / No ☐
Was the craft stable as it accelerated?	Yes ☐ / No ☐
Was the craft stable on a straight-line transit?	Yes ☐ / No ☐
Was the craft stable as it de-accelerated?	Yes ☐ / No ☐
Were any of the following conditions observed during the trial: *chine walking, craft lol, proposing/ nose diving, excessive slamming, poor trim*?	Yes ☐ / No ☐
Was the craft responsive and controllable during the course changes?	Yes ☐ / No ☐
Was the coxswain able to trim the craft as required for craft performance?	Yes ☒ / No ☐
Was the craft easily controlled by the coxswain without need for significant input of control?	Yes ☐ / No ☐
Were the craft controls and their positions suitable for the coxswain?	Yes ☐ / No ☐
Was the craft considered noisy during the trial	Yes ☐ / No ☐
Were there any WBV issues observed during the trial?	Yes ☐ / No ☐
Detail any observations.	

Observation Summary of Craft Performance During the Trial			
	Satisfactory	Not Satisfactory	Notes
Craft Stability	☐	☐	
Craft course keeping	☐	☐	
Craft manoeuvrability	☐	☐	
Craft speed performance	☐	☐	
Craft acceleration	☐	☐	
Craft ability to stop	☐	☐	
Sea Keeping	☐	☐	

Survey and Trials form 2A	Acceleration Trial	V 1.0 16/10/23

Boat Type:	Boat Number:	Trial Date:
Trials Location:		

Sea State:	Wind Force:	Wind Direction:	Air Temperature (°C):	Sea Temperature: (°C):
Craft loaded condition:	Weight of craft (Kg):	Ballast added (Kg): Type of ballast:		Fuel (ltr):
Time trial started:		Time trial finished:		

Craft maximum average speed as determined in the craft BR - _____ kts

Craft engines are to be run in and at operating temperature. From a standing start the craft is to accelerate as quickly as possible up to its speed maximum average speed given in the BR. The craft is to conduct a total of 3 runs sailing in to the sea and 3 runs sailing with the sea. The time to reach the maximum average speed is to be recorded. The average acceleration of the craft is to be calculated from the recorded data.

Engine 1 = Single or Port Engine. Engine 2 = STBD Engine	Trial Runs					
	Run 1	Run2	Run 3	Run 4	Run 5	Run 6
Time to complete run (s)						
Average time to complete runs 1-6 (s)						
Average acceleration of Runs 1-6 (kts)						

General trial observations	
Did any mechanical defects or alarms occur during the trial?	Yes ☐ / No ☐
Was the craft stable as it accelerated?	Yes ☐ / No ☐
Was the craft stable on a straight-line transit?	Yes ☐ / No ☐
Was the craft stable as it de-accelerated?	Yes ☐ / No ☐
Were any of the following conditions observed during the trial: *chine walking, craft lol, proposing/ nose diving, excessive slamming, poor trim*?	Yes ☐ / No ☐
Was the craft responsive and controllable during the course changes?	Yes ☐ / No ☐
Was the coxswain able to trim the craft as required for craft performance?	Yes ☐ / No ☐
Was the craft easily controlled by the coxswain without need for significant input of control?	Yes ☐ / No ☐
Were the craft controls and their positions suitable for the coxswain?	Yes ☐ / No ☐
Was the craft considered noisy during the trial	Yes ☐ / No ☐
Were there any WBV issues observed during the trial?	Yes ☐ / No ☐
Detail any observations.	

Observation Summary of Craft Performance During the Trial			
	Satisfactory	Not Satisfactory	Notes
Craft Stability	☐	☐	
Craft course keeping	☐	☐	
Craft manoeuvrability	☐	☐	
Craft speed performance	☐	☐	
Craft acceleration	☐	☐	
Craft ability to stop	☐	☐	
Sea Keeping	☐	☐	