

RNLI STANDARD OPERATING PROCEDURE



Safe Navigation

Validation

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Objective

To ensure the safe navigation of RNLI vessels.

Reference Documentation

CoBT 1
Crew Members Handbook
RNLI Navigation Policy
International Regulations for the Prevention of Collision at Sea (IRPCS)
SOLAS Chapter V
STCW 'Basic principles to be observed in keeping a navigational watch'
MCA 'The Human Element'

Checklist

	✓
SOP communicated and understood by all?	
Appropriate PPE identified /specified?	

Hazards

Fatigue	Weather and sea conditions

Health and Safety

 Lifejackets to be worn	 Protective clothing must be worn	 Protective footwear must be worn			
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Passage Planning:

The RNLI follows the IMO 'Guidelines for Voyage planning' recommendations

Appraisal

- All sources of information must be consulted to establish an outline route from berth to berth e.g. charts, pilot books, tide tables, tidal stream atlases, notices to mariners, radio signal information, weather forecasts, distance tables, local warnings, crew competence and RNLI guidance and policy

Planning

- When preparing a plan the following must be taken into account:
 - Adequate underkeel clearance and safe distances from dangers
 - Safe speeds along route allowing for possible restricted visibility
 - Alter course positions that are easily recognisable by visual or radar means
 - Predicted tidal information allowing for set and constraints to ETA
 - Pilotage plans for safe harbour entry & exit
 - Visibility of lights
 - Contingency plans in case of accident or emergency
 - Electronic navigation aids availability and limitations
 - Margin of allowable error, safety clearing bearings and ranges
 - Up to date charts and publications
 - Manoeuvrability of vessel in relation to the depth of water
 - Equipment status
 - Local by-laws and local notice to mariners
- Charts must be marked with limiting danger lines (no-go areas) reflective of the vessels draught and available depth of water
- Transits, clearing lines and other visual aids should be planned along the route to ensure the vessel is kept on its intended track and not put in a position of danger

Execution

- Immediately before departure:
 - Calculate accurate tidal heights and tidal streams for duration of passage
 - Give a briefing and allocate roles
- Consider traffic density and calculate ETA
- Verify correct operation of equipment, e.g. radar, echo sounder, compass, plotter, AIS

Monitoring

- The route must have close and continuous monitoring and position must be fixed on a chart at least every 20 minutes or ahead of a communications check. Frequency of fixing should increase when operating in restricted visibility, at night, in close proximity to navigational hazards or in shallow water
- Monitor AIS and VHF channels for vessel movements and maritime safety information
- Update ETAs
- Keep and maintain a regular log
- Assess other vessels for a potential risk of collision or close quarters manoeuvring

Intentional deviations from the route must be communicated, unintentional deviations must be investigated and mitigated e.g. by amending the route and/or identifying faulty equipment or process.

Prior to a lifeboat launching:

- Switch on radar and tune into most appropriate range scale (if available)
- Ensure all charts and publications are corrected, up to date and present on board
- Ensure a safe route and limiting danger lines are marked on paper charts
- Ensure the safe route is saved in an electronic plotter
- Check navigation lights, sound signalling apparatus and radios are fully operational
- Check all aids to navigation are fully operational and an up to date deviation card is on board
- Set brilliance on electronic aids to reflect natural available light

Aids to navigation are to be utilised fully as a matter of routine in conjunction with the charted plan to monitor the boats route through the water and any other vessel's approach to give early warning of any potential hazardous situation arising. The echo sounder must be monitored and a minimum expected depth is to be communicated to the helm. Any changes in prevailing conditions or physical environment must receive the full attention of the person in command and appropriate action must be taken.

Situational awareness must be maintained at all times. If situational awareness is impaired for whatever reason, the suitability of decision making will be affected.

Remember the three levels of mental activity in situational awareness are: Perception; Comprehension; and Projection. This process will enable informed decision making in dynamic environments.

Whilst underway (in addition to above):

- Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid a collision and be stopped within a distance appropriate to the prevailing circumstances and conditions
- Extra vigilance must be paid if a close quarters situation is developing or a risk of collision exists
- Ensure vessel wash and wake does not hinder or negatively affect other vessels
- Ensure crew wellbeing especially establishing early warning signs of fatigue
- Communications with relevant co-ordinating authority I.A.W. the current policy
- In the absence of electronic chart plotting future projection e.g. dead-reckoning and estimated positions, must be plotted on charts

Operating in darkness:

- Use wheelhouse red lights at night (if available) and minimise exposure to white light
- Set brilliance of electronics to a minimum level required for viewing
- Do not proceed until passage plans have been finalised and are saved in plotter
- Ensure radar is tuned and displays the most appropriate range scale
- Switch on and ensure navigation lights are operational
- Assign lookout(s)

Operating in restricted visibility:

Note: The person in command must gauge the importance of the passage and justify its continuation

- Maintain a radar watch and prepare MARPA or other plotting aids
- Switch on and ensure navigation lights are operational
- Post extra lookout(s)
- Fix position and if possible proceed away from or parallel to danger and/or traffic lanes
- Sound prescribed sound signal
- Prepare to reduce speed to a minimum or stop

In or near areas of restricted visibility, when vessels are not in visual sight, every vessel must give way if a close quarters situation is developing or a risk of collision exists (IRPCS rule 19).