Qualification Unit

This unit forms part of a regulated qualification.

Unit Title: Passage Planning

Unit Reference Number: H/617/1465

Level: Level Three (3)

Credit Value: Six (6)

Minimum Guided Learning Hours: 45

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand vessel preparation	1.1 Outline procedures for the preparation of: a) The crew b) Crew numbers c) Watches d) Crew certification e) Personal Protective Equipment
	1.2 Describe the procedure for summoning help in an emergency
	1.3 Outline electronics and navigational safety equipment required
	1.4 Outline considerations required for victualling and fuelling
	1.5 Describe pre-sailing engine and vessel checks
2. Be able to calculate tidal information	2.1 Read a tide table to find the time and height of high and low water
	2.2 Describe the causes of tides and the difference between spring and neap tides
	2.3 Describe the effects of wind with tide and wind against tide on wave shape and height
	2.4 Work out the depth of water and under keel clearance using the height of tide, depth of water and depth above chart data

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		2.5	Use a tidal curve to calculate height of water or keel clearance or time when there will be sufficient water at a standard port.
		2.6	Use a tidal atlas to work out spring and neaps tide rate and direction
		2.7	Use tidal diamonds to work out spring and neaps rate
		2.8	Interpolate the tidal rate for a tide part way between springs and neaps
		2.9	Analyse the effect of the strength and direction of the tide on the vessels speed over the ground course to steer
3.	Understands Admiralty chart conventions	3.1	Describe what the colours mean on an admiralty chart
		3.2	Describe the conventions on depths and drying heights on admiralty charts
		3.3	Use the conventions on an admiralty chart for buoyage and aids to navigation to plot a safe route, including: a) leading lights and Racons b) natural hazards c) traffic separation zones d) precautionary areas
		3.4	Obey the rules for vessel traffic systems, precautionary areas and port entry rules when planning the proper navigation of a vessel
4.	Be able to interpret a shipping forecast	4.1	Describe the meanings of the terms used in the shipping forecast and
		4.2	interpret a shipping forecast into what the conditions are likely to be like over an 18 hour period.
		4.3	Use a shipping forecast to inform decisions with regards to planning a safe passage
5.	Be able to plan a safe route	5.1	Explain the following features with regards to passage planning. a) Shape of coastlines, rivers and channels, the fetch for waves and the effects of headlands on the likely sea state and strengths of currents b) Causes of tidal overfalls

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5.2 Plan a safe route and plot this on a given chart, including:

a) Use of correct symbols for chart work
b) Working out tidal vectors to give correct course to steer and likely speed over ground
c) Plot a route comprised of way points
d) True and magnetic course to steer
e) Latitude and longitude scale to record positions of waypoints and find distances on Admiralty chart
f) Calculation of total length of route
g) Planned cruising speeds to calculate estimated time for a leg and total journey
h) Tidal gateway calculations and port entry limitations
i) Use of total journey time and cruising speed to calculate fuel required
j) Plotting onto charts of aids to navigation, such as waypoint nets and ladders or places where parallel indexing using radar will help avoid a hazard or keep to a planned route
k) Importance of contingency planning
l) Procedures for entry and exit to a port
m) Ways to contact vessel traffic services or port harbour masters

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