

**SKILLS FRAMEWORK FOR SEA TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Ship Navigation					
TSC	Navigation and Position Determination					
TSC Description	Plan voyages and perform navigation					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			STP-SNG-3001-1.1	STP-SNG-4001-1.1		
			Plan and conduct a passage and determine position	Navigate the ship safely along the planned route of voyage		
Knowledge			<ul style="list-style-type: none"> Celestial navigation Terrestrial and coastal navigation Nautical charts and publications Electronic systems of position fixing and navigation Echo-sounders Magnetic and gyro-compasses Steering control systems Meteorology Characteristics of weather systems, reporting procedures and recording systems 	<ul style="list-style-type: none"> Voyage planning and navigation for all conditions General provisions on ships' routing General principles for ship reporting systems with Vessel Traffic Service (VTS) Methods of position determination Principles and types of errors of the magnetic and gyro compasses 		
Abilities			<ul style="list-style-type: none"> Interpret and apply information from nautical charts and publications Identify all potential navigational hazards Determine ships' positions using electronic navigational aids Determine ships' positions within the limits of acceptable instrument or system errors 	<ul style="list-style-type: none"> Ensure equipment, charts and nautical publications required for the voyage are enumerated Support reasons for planned route with facts and statistical data Ensure positions, courses, distances and time calculations are accurate Identify all potential navigational hazards 		

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			<ul style="list-style-type: none"> • Carry out performance checks and tests to ensure navigation systems comply with manufacturer's recommendations 	<ul style="list-style-type: none"> • Determine positions and accuracy of resultant position fixes • State possible errors affecting accuracy of resulting positions • Minimise the effects of system errors on resulting positions • Determine and allow for compass errors 		
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