1	**Conduct fast and safe transportation**				
	1,1	**Sail**			
		1.1.1	Plan and prepare		
			1.1.1.1	Gather voyage information	
				1.1.1.1.1	Check sail instructions (owner / charterer)
				1.1.1.1.2	Gather previous experience
				1.1.1.1.3	Identify sail directions and recommendations
				1.1.1.1.4	Lookup rough distance from distance tables
				1.1.1.1.5	Gather geographic information
				1.1.1.1.6	Gather climatologic information
				1.1.1.1.7	Gather current / tidal information
				1.1.1.1.8	Gather ship characteristics
				1.1.1.1.9	Identify dangers to navigation
				1.1.1.1.10	Check local rules and regulations
				1.1.1.1.11	Identify ports of refugee
				1.1.1.1.12	Identify navigational information sources
				1.1.1.1.13	Purchase missing navigation information
			1.1.1.2	Plan transit (voyage plan)	
				1.1.1.2.1	Propose route sections (and speed profile)
					1.1.1.2.1.1 Incorporate route data
					1.1.1.2.1.2 Incorporate charter data
					1.1.1.2.1.3 Incorporate meteorological data
					1.1.1.2.1.3.1 Check weather forecast
					1.1.1.2.1.3.2 Check wave forecast
					1.1.1.2.1.4 Incorporate ship characteristics
					1.1.1.2.1.5 incorporate human and cargo constraints
					1.1.1.2.1.6 incorporate hydrographical criteria
					1.1.1.2.1.6.1 Check water depths
					1.1.1.2.1.6.2 Check current and tidal height
				1.1.1.2.2	Select optimal route by satisfying criteria
					1.1.1.2.2.1 Calculate minimum cost route
					1.1.1.2.2.2 Calculate minimum time route
					1.1.1.2.2.3 Select route and define sections
					1.1.1.2.2.3.1 Define waypoints
					1.1.1.2.2.3.2 Define ETA / speed profile
				1.1.1.2.3	Log route plan
					1.1.1.2.3.1 Insert waypoints & courses in nav charts
					1.1.1.2.3.2 Insert attention area's in charts
					1.1.1.2.3.3 Prepare route table & information sheet
					1.1.1.2.3.4 Insert route in navigation equipment
				1.1.1.2.4	Check route plan by master
			1.1.1.3	Plan routine navigation	
				1.1.1.3.1	Determine means and measures to navigate
				1.1.1.3.2	Check restrictions in navigational area's
				1.1.1.3.3	Determine watch standing crew
				1.1.1.3.4	Check local procedures and nav aids
				1.1.1.3.5	Anticipate on systems breakdown
					1.1.1.3.5.1 Prepare back-up navigation
					1.1.1.3.5.2 Prepare back-up conning
			1.1.1.4	Discuss route plan with watch officers	
				1.1.1.4.1	Conduct pre-sail meeting
				1.1.1.4.2	Conduct watch hand-over
			1.1.1.5	Prepare vessel for sea passage	
				1.1.1.5.1	Muster crew
				1.1.1.5.2	Load bunkers and stores
				1.1.1.5.3	Seafastening Ship's equipment
				1.1.1.5.4	Seafastening cargo
				1.1.1.5.5	Ballast / trim to sail condition
				1.1.1.5.6	Check stability
				1.1.1.5.7	Prepare start-up engines and aux systems
		1.1.2	Conduct Voyage		
			1.1.2.1	Depart	
				1.1.2.1.1	Organise departure
					1.1.2.1.1.1 Inform crew
					1.1.2.1.1.2 Inform Agent
					1.1.2.1.1.2.1 Inform Pilot
					1.1.2.1.1.2.2 Inform tug(s)
					1.1.2.1.1.2.3 Inform linesmen
					1.1.2.1.1.2.4 Inform VTMS
					1.1.2.1.1.3 Inform owner / charterer
					1.1.2.1.1.4 Inform authorities
				1.1.2.1.2	Start Engine(s) and aux systems
				1.1.2.1.3	Check manoeuvring systems
				1.1.2.1.4	Conduct pre-departure checklist
					1.1.2.1.4.1 Check bridge equipment
					1.1.2.1.4.1.1 Course recorder
					1.1.2.1.4.1.2 Telegraph recorder
					1.1.2.1.4.1.3 Voyage Data Recorder
					1.1.2.1.4.2 Check latest navigational & weather messages
				1.1.2.1.5	Prepare pilot (dis-)embarkation arrangements
				1.1.2.1.6	Prepare mooring equipment
				1.1.2.1.7	Call "fore and aft" stations
		1.1.1		1.1.2.1.8	Unmoor ship

1.1.2.1.9	Prepare anchors			
1.1.2.1.10	Manoeuvre ship			
	1.1.2.1.10.1	Use own propeller and (optional) thruster(s)		
	1.1.2.1.10.2	Use tug boat assistence		
		1.1.2.1.10.2.1	Make fast	
		1.1.2.1.10.2.2	Let go	
1.1.2.1.11	Disembark pilot			
	1.1.2.1.11.1	Slow down		
	1.1.2.1.11.2	Make lee		
	1.1.2.1.11.3	Monitor pilot launch alongside		
	1.1.2.1.11.4	Transfer pilot		
1.1.2.1.12	Commence sea voyage			
	1.1.2.1.12.1	Increase to pre-determined course & speed		
	1.1.2.1.12.2	Clear mooring arrangement		
	1.1.2.1.12.3	Clear pilot (dis-)embarkation arrangements		
	1.1.2.1.12.4	Seafasten anchors		
	1.1.2.1.12.5	Close all openings		
1.1.2.2 Navigate				
	1.1.2.2.1	Monitor environment		
		1.1.2.2.1.1	Monitor traffic and fairway	
		1.1.2.2.1.2	Communicate with VTMS / traffic control / reporting systems	
		1.1.2.2.1.3	Monitor local traffic status	
		1.1.2.2.1.4	Monitor ARPA	
		1.1.2.2.1.5	Monitor visual (look out)	
		1.1.2.2.1.6	Communicate with other vessels	
	1.1.2.2.2	Observe sky, water and wind		
		1.1.2.2.2.1	Read messages	
		1.1.2.2.2.2	Check radar	
		1.1.2.2.2.3	Check forecasts	
	1.1.2.2.3	Maintain current route (and time plan)		
		1.1.2.2.3.1	Monitor continuoes progress	
			1.1.2.2.3.1.1	Monitor ECDIS
			1.1.2.2.3.1.2	Use parallel index technique
			1.1.2.2.3.1.3	Monitor GPS cross track error
			1.1.2.2.3.1.4	Monitor GPS distance to next waypoint
		1.1.2.2.3.2	Fix position	
			1.1.2.2.3.2.1	Check time interval
			1.1.2.2.3.2.2	Take visual bearings
			1.1.2.2.3.2.3	Take radar distance (bearing optional)
			1.1.2.2.3.2.4	Read GPS system
			1.1.2.2.3.2.5	Check distance log
			1.1.2.2.3.2.6	Check depth sounding
		1.1.2.2.3.3	Plot position	
			1.1.2.2.3.3.1	Enter position in chart
			1.1.2.2.3.3.2	Verify line of positions
			1.1.2.2.3.3.3	Verify position with Dead Reckoning — 1.1.2.2.3.1.7 Use radar
			1.1.2.2.3.3.4	Log position — 1.1.2.2.3.1.7 Set radar to
			1.1.2.2.3.3.5	Check validity of position data — 1.1.2.2.3.1.7 Set range ri
			1.1.2.2.3.3.6	1.1.2.2.3.1.8.1 Accept data — 1.1.2.2.3.1.7 Plot echo
			1.1.2.2.3.3.7	1.1.2.2.3.1.8.2 Reject data
		1.1.2.2.3.4	Assess deviation from planned route section (track)	
			1.1.2.2.3.4.1	Assess deviation from planned position
			1.1.2.2.3.4.2	1.1.2.2.3.2.1.1 Determine Cross track error
			1.1.2.2.3.4.3	1.1.2.2.3.2.1.2 Determine angular deviation
			1.1.2.2.3.4.4	1.1.2.2.3.2.1.3 Determine effects of current
			1.1.2.2.3.4.5	1.1.2.2.3.2.1.4 Determine effects of weather
			1.1.2.2.3.4.6	Assess deviation from planned time
		1.1.2.2.3.5	Decide to adjust position by control of heading and speed	
			1.1.2.2.3.5.1	Check restrictions of nav area
	1.1.2.2.4	Adjust current route and time plan		
		1.1.2.2.4.1	Avoid collision	
			1.1.2.2.4.1.1	Identify threat vessels
				1.1.2.2.4.1.1.1 Determine change in bearing of vessels
				1.1.2.2.4.1.1.1.1 Take compass bearings
				1.1.2.2.4.1.1.1.2 Take radar bearings
				1.1.2.2.4.1.1.2 Determine heading of vessels
				1.1.2.2.4.1.1.2.1 Communicate
				1.1.2.2.4.1.1.2.2 Plot on radar
				1.1.2.2.4.1.1.2.3 Monitor ARPA vector
				1.1.2.2.4.1.1.2.4 Monitor vessel aspects
				1.1.2.2.4.1.1.3 Determine speed of vessels
				1.1.2.2.4.1.1.3.1 Communicate
				1.1.2.2.4.1.1.3.2 Monitor ARPA vector
				1.1.2.2.4.1.1.3.3 Estimate
				1.1.2.2.4.1.1.4 Determine CPA
				1.1.2.2.4.1.1.5 Determine TCPA
				1.1.2.2.4.1.1.6 Determine intention of vessels
				1.1.2.2.4.1.1.6.1 Communicate
				1.1.2.2.4.1.1.6.2 Check behaviour
				1.1.2.2.4.1.1.6.3 Utilise knowledge
				1.1.2.2.4.1.1.7 Determine whether danger of collision
			1.1.2.2.4.1.2	Apply collision avoidance regulations
			1.1.2.2.4.1.3	Determine margins for evasive actions
			1.1.2.2.4.1.4	Determine evasive course and speed actions

Code	Description
1.1.2.2.4.1.5	Select evasive course and speed actions
1.1.2.2.4.1.6	Communicate intentions
1.1.2.2.4.1.6.1	Use VHF
1.1.2.2.4.1.6.2	Use Whistle
1.1.2.2.4.1.6.3	Make use of own vessel aspect
1.1.2.2.4.2	Avoid Grounding
1.1.2.2.4.2.1	Maintain knowledge of local situation
1.1.2.2.4.2.1.1	Maintain chart corrections
1.1.2.2.4.2.1.2	Maintain awareness of mooring ops
1.1.2.2.4.2.2	Maintain awareness of own ship characteristics
1.1.2.2.4.2.3	Monitor charted depths
1.1.2.2.4.2.4	Calculate actual depths
1.1.2.2.4.2.5	Monitor echo soundings
1.1.2.2.4.2.6	Maintain look out
1.1.2.2.4.2.7	Monitor radar
1.1.2.2.4.2.8	Select options for course and speed
1.1.2.2.4.2.9	Initiate evasive action
1.1.2.2.5	Respond on changing weather/sea conditions (update voyage plan)
1.1.2.2.5.1	Determine disturbing factors
1.1.2.2.5.1.1	Check weather data
1.1.2.2.5.1.2	Check wave and current data
1.1.2.2.5.1.3	Calculate effect on current plan
1.1.2.2.5.2	Check charter conditions
1.1.2.2.5.3	Check ship related data
1.1.2.2.5.4	Define new route section / track
1.1.2.2.5.4.1	Define new waypoints
1.1.2.2.5.4.2	Define new ETA / speed profile
1.1.2.2.6	Log plan deviations
1.1.2.3	Control heading and speed
1.1.2.3.1	Set course
1.1.2.3.1.1	Control rudder deflection
1.1.2.3.1.2	Monitor rudder deflection
1.1.2.3.1.3	Observe rate of turn
1.1.2.3.1.4	Monitor course status
1.1.2.3.2	Set speed
1.1.2.3.2.1	Control propulsion
1.1.2.3.2.1.1	Control shaft revolutions
1.1.2.3.2.1.2	Control propellor pitch / revs
1.1.2.3.2.2	Monitor propulsion
1.1.2.3.2.2.1	Monitor shaft revolutions
1.1.2.3.2.2.2	Monitor propellor pitch / revs
1.1.2.3.2.3	Monitor speed status
1.1.2.4	Monitor automatic control
1.1.2.4.1	Maintain awareness of current mode of automated bridge systems
1.1.2.4.1.1	Inform during hand-over
1.1.2.4.1.2	Observe status indicator
1.1.2.4.1.3	Notice change in status by alarms
1.1.2.4.2	Assess performance of automated systems
1.1.2.4.3	Assess deviations of planned course and speed
1.1.2.4.4	Anticipate disturbances
1.1.2.4.4.1	Anticipate propagation of single faults through linked systems
1.1.2.5	Execute logging
1.1.2.6	Arrive
1.1.2.6.1	Organise arrival
1.1.2.6.1.1	Inform crew
1.1.2.6.1.2	Inform Agent
1.1.2.6.1.2.1	Inform Pilot
1.1.2.6.1.2.2	Inform tug(s)
1.1.2.6.1.2.3	Inform Linesmen
1.1.2.6.1.2.4	Inform VTMS
1.1.2.6.1.3	Inform owner / charterer
1.1.2.6.1.4	Inform authorities
1.1.2.6.2	Prepare engines for manoeuvring
1.1.2.6.3	Conduct pre-arrival checklist
1.1.2.6.3.1	Check manoeuvring systems
1.1.2.6.4	Prepare pilot (dis-)embarkation arrangements
1.1.2.6.5	Prepare mooring equipment
1.1.2.6.6	Prepare anchors
1.1.2.6.7	Terminate sea voyage
1.1.2.6.8	Embark Pilot
1.1.2.6.8.1	Slow down
1.1.2.6.8.2	Make lee
1.1.2.6.8.3	Monitor pilot launch alongside
1.1.2.6.8.4	Transfer pilot
1.1.2.6.9	Call "fore and aft" stations
1.1.2.6.10	Manoeuvre ship
1.1.2.6.10.1	Use tugboat assistance
1.1.2.6.10.1.1	Make fast
1.1.2.6.10.1.2	Let go
1.1.2.6.10.2	Use own propeller and (optional) thruster(s)
1.1.2.6.10.3	Use anchor(s)
1.1.2.6.10.4	Use mooring line(s)
1.1.2.6.11	Berth vessel
1.1.2.6.11.1	Manoeuvre vessel alongside

				1.1.2.6.11.2	Bring mooring lines ashore						
				1.1.2.6.11.3	Heave vessel alongside						
					1.1.2.6.11.3.1	Use stoppers					
					1.1.2.6.11.3.2	Fix mooring lines on bollards					
				1.1.2.6.11.4	Prepare vessel access						
	1.1.3	Terminate Voyage									
		1.1.3.1	Command "finish with engines"								
		1.1.3.2	Complete logbooks								
		1.1.3.3	Complete voyage report								
1,2	Communicate										
	1.2.2	Communicate with ship owner / charterer									
	1.2.3	Communicate with Agent									
	1.2.4	Communicate with Meteorological service									
1,3	Maintain Platform										
		Clean vessel									
		Maintain stability									
		Ballast / trim vessel									
		Maintain seaworthiness									
		Check bilges									
		Prepare arrival									
1,4	Monitor and Maintain cargo status										
		Inspect cargo									