

Appendix D

Career Pathways Matrix

Commercial Sea Fishing

Most Skippers in the seafish sector have worked up from a Deckie Learner, and the career progression is quite straightforward. There are, however, opportunities to move sideways or to shore-based positions.

Job title	Opportunities within the Maritime sector	Opportunities in other Sectors	Established routes from other sectors
Skipper	<p>A Skipper may move to a different size or type of vessel (for example inshore to limited, or unlimited area).</p> <p>Shore-based opportunities include vessel support or standby vessels, fleet operations and harbour tug work.</p> <p>Experienced skippers may be able to move into related careers. These might include the Merchant Navy, oil or gas exploration, cargo operations or ferries.</p>	Other commercial vessels outside of the Merchant Navy.	
Mate	<p>With experience (usually around 5 years) a mate can study for a Skipper's certificate.</p> <p>This level of seagoing experience is valued at officer-level in shore-based work. For example, a Mate might work as a training or safety officer.</p> <p>The Level 3 Marine Vessel Operation qualification that a mate might have would enable transfer to officer level in the Merchant Navy.</p>		
Competent Deckhand	Once qualified as a deckhand, the obvious career progression is to Mate. This requires obtaining a Mate's		

Job title	Opportunities within the Maritime sector	Opportunities in other Sectors	Established routes from other sectors
	<p>Ticket and usually around 4 years experience.</p> <p>Alternatively with a Class 1 Deck Officer qualification a deckhand can convert to the Merchant Navy to study for the MCA OOW Oral.</p>		
Engineer	<p>Depending on the size of the vessel, a qualified engineer may move up to Chief Engineer.</p> <p>Shore-based engineering opportunities include plant and equipment manufacturers and shipbuilding and repair yards. Experienced engineers may move to a Superintendent Engineer position. There are also a wider variety of shore-based engineering roles in the Merchant Navy.</p> <p>Marine engineers also work in the Merchant and Royal Navy, and with a general engineering qualification engineers can move between sectors, for example into mechanical engineering.</p>	<p>There are a wide variety of shore based industries requiring engineering experience.</p>	
Deckie Learner	Competent deckhand		
Superintendent Engineer	<p>A Superintendent engineer may progress to a director position, such as Engineering Director.</p> <p>There are opportunities within the Merchant Navy shore-based ship management sector.</p>	<p>Consultancy.</p> <p>There are a wide variety of shore based industries requiring engineering experience.</p>	

Marine Leisure

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
Naval Architect	Yacht Designer	Yacht Designer, project management, Shipbuilding and repairing, Pleasure and small commercial craft	Ministry of Defence Offshore oil and gas companies Consultancy	
Yacht designer	Boat Designer	Team/project management		
Draughtsman/ Draughtswoman	CAD Technician	Team/project/site manager	Construction Engineering Aerospace Railways Electronics Broadcasting and telecommunication Freelance work	
Boat Builder	Yacht Builder Yacht Repairer	Yacht surveyor		
Boat Fitter	Marina Craftsperson	Marine Engineering Technician, Marine Design, Sales Shipbuilding and repairs, ship yards		
Engineer Electrics/ Electronics Engineer Marine Engineer		Team/project/site management Management/director position (eg Engineering Director) Base/Port engineer Yacht surveyor Shipping companies Shipyards Pleasure and small commercial craft	Research & Development Consultancy	
Yacht Broker	Yacht Agent Dealer Distributor		Sales Brokerage	
Yacht Surveyor	Marine Surveyor Small Craft Surveyor	Damage/loss assessment Refit overseeing		
Watersports Manager		Marina Manager		
Watersports Instructor		Watersports Manager		
Marina Manager			Resort Manager	
Dockmaster	Operations Manager	Operations Director		
Marina Operative	Berthing / Mooring / Yard Assistant	Dockmaster		

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
Captain (On Superyachts)		Captain of larger yachts Marine Superintendent, Technical Superintendent Marine Insurance Investigator	Lecturer	
First Officer (On Superyachts)	Mate	Captain	Lecturer	
Engineer (On Superyachts)		Management/director position (eg Engineering Director) Base/Port engineer Yacht surveyor Shipping companies Shipyards Pleasure and small commercial craft		
Chef (On Superyachts)		Head Chef Ship's Cook in MN	Catering sector	
Chief Steward/ess (On Superyachts)	Interior Director Interior Manager Hotel Manager	Personal Assistant to Yacht Owner, Chief Purser on a large Superyacht Passenger liner steward/ess	Hotel Management Housekeeper in owner's residence	
Deckhand (On Superyachts)	Deck Rating	Flotilla Engineer, Flotilla Host(ess)		
Flotilla Engineer		Flotilla Skipper Bareboat Engineer Bareboat Skipper Base Engineer Technical Manager Base manager		Car Mechanic
Flotilla Host/Hostess		Chief Steward/ess (bareboat) Customer Liaison Base Manager Passenger liner Steward/ess Superyacht Steward/ess	Hospitality sector	
Delivery skipper		Charter Skipper Flotilla Skipper Bareboat Skipper Base Manager		
Flotilla Skipper		Bareboat Skipper Charter Skipper Base Manager		
Bareboat Skipper		Charter Skipper Flotilla Skipper Base Manager		

Charter skipper		Delivery Skipper Flotilla Skipper Base Manager		
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Maritime Search and Rescue

Job title	Alternative Title	Opportunities within the Maritime sector	Opportunities in other Sectors	Established routes from other sectors
N.B. Emergency and Rescue Posts are voluntary and postholders tend to undertake roles in addition to their existing occupations. Career pathway links with other maritime industries are, therefore, not very active.				
Coxswain (ALB)	Coxswain trainee	Qualifications gained in this post can be used in other maritime industries such as Marine Leisure, where the RYA Coastal Certificate of Competence could be valid for entry to a Delivery Skipper post.		All crew are volunteers and can come from any occupation
Helmsman (ILB)				
Mechanic (ALB)	Engineer	Qualifications gained in this role (MEOL and AEC) could be used in other marine engineering positions across the maritime industries.		
Mechanic (ILB)				
Navigator		Qualifications gained in this post can be used in other maritime industries such as Marine Leisure, where the RYA Coastal Certificate of Competence could be valid for entry to a Delivery Skipper post.		
Crew member		Coxswain Helmsman Hovercraft Commander Qualifications gained as crew members can be used in other maritime industries, such as Marine Leisure, where the RYA Level 2 Powerboat qualification could be used a Marina Manager role.		

Ist Aider	Crew member	Coxswain Helmsman Hovercraft Commander		
Hovercraft Commander				

Merchant Navy

Progression within the sector follows a fairly straightforward pattern, with the majority of Masters/Chief Engineers working up from cadet level. Progression is achieved through further study and certification and experience (for which approximate lengths are given here).

There are opportunities to move to other sectors and to the shore based-sector for those with seafaring experience.

There are also opportunities to move sideways to similar roles on different types and sizes of vessel, which is assumed to be an option at all levels.

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
Master	Captain	<p>An experienced Master may captain a variety of sizes and types of vessel.</p> <p>With Master experience opportunities include management (including operations and safety), director (such as fleet) and support roles (such as Marine Superintendent).</p> <p>Opportunities in the marine leisure industry include super yachts.</p> <p>Opportunities to move into the ports industry as Harbour Master or Marine Pilot.</p>	Opportunities in consultancy, surveying, lecturing and maritime law.	
Chief Officer	Chief Mate	<p>Master.</p> <p>With experience and STCW II/2 Certification,</p>	Opportunities in consultancy, surveying, lecturing and maritime law.	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
		<p>opportunities include management (including operations and safety), director (such as fleet) and support roles (such as Marine Superintendent).</p> <p>Opportunities in the marine leisure industry include super yachts.</p> <p>Opportunities to move into the ports industry as Harbour Master or Marine Pilot.</p>		
2 nd Officer	2 nd Mate	<p>Chief Officer.</p> <p>With experience and STCW II/2 Certification, opportunities include management (including operations, safety and fleet) and support roles (such as Marine Superintendent).</p> <p>Opportunities in the marine leisure industry include super yachts.</p> <p>Opportunities to move into the ports industry as Harbour Master, Deputy Harbour Master, Marine Pilot or VTS Officer.</p>	Opportunities in consultancy, surveying, lecturing and maritime law.	
3 rd Officer	3 rd Mate	<p>2nd Officer.</p> <p>With experience and opportunities include management (including operations, safety and fleet) and support roles (such as Assistant Marine Superintendent).</p> <p>Opportunities in the</p>	Opportunities in consultancy, surveying, lecturing and maritime law.	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
		<p>marine leisure industry include super yachts.</p> <p>Opportunities to move into the ports industry as Deputy Harbour Master, Marine Pilot or VTS Officer.</p>		
Cadet	Trainee Officer	Upon qualification, a trainee officer will usually join a vessel as 3 rd officer, depending on the size of the vessel.		
Radio Officer	IT Officer	<p>Usually only found on passenger ships, the Radio Officer can progress through the normal deck officer route.</p> <p>Communication roles, such as a VTS Officer in a port. Also roles in operations value seagoing experience.</p>	Lecturing.	
Officers (Engineering)				
<i>Must be holder of the Officer of the Watch Certificate of Competence</i>				
Chief Engineer		<p>Chief Engineers are needed on a range of vessels, from oil tankers to passenger liners.</p> <p>Support opportunities include Engineering Superintendent and Technical Superintendent positions. Other opportunities include consultancy work and top level positions in ship building and repair, design and surveying.</p> <p>Both the Royal Navy and the marine leisure sector employ Chief Engineers. There are also</p>	<p>Consultancy, Lecturing.</p> <p>There are a wide variety of shore based industries requiring engineering experience.</p>	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
		director and management opportunities in the ports and sector.		
2 nd Engineer		<p>Chief Engineer.</p> <p>Middle level shore-based roles include Assistant Engineering Superintendent and Assistant Technical Manager. There are also opportunities in ship yards, design and surveying.</p> <p>Management and support opportunities in the ports sector. Marine leisure and Royal Navy roles.</p>	<p>Consultancy, Lecturing.</p> <p>There are a wide variety of shore based industries requiring engineering experience.</p>	
3 rd Engineer		<p>2nd Engineer.</p> <p>Shore-based Engineering Technical Assistant</p> <p>There are engineering opportunities in the marine leisure and supervising technicians in the ports sector.</p>	<p>There are a wide variety of shore based industries requiring engineering experience.</p>	
Junior Engineer	Junior Officer	<p>3rd Engineer, depending on the size of the vessel.</p> <p>Shore-based Engineering Technical Assistant. There are support opportunities in the ports sector and engineering opportunities in the fishing and marine leisure sectors.</p>		Mechanic, general engineering experience
Engineer Cadet		The first posting for an Engineer Cadet is as a <i>Junior</i> Engineer.		Mechanic, general engineering experience

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
Electro-Technical Officer (ETO)		<p>With experience and relevant study, an ETO can progress to senior rank, especially on large passenger vessels with very large electrical plant.</p> <p>There are technician opportunities in the ports sector.</p>	<p>Specialised or management opportunities in a Power Plant.</p> <p>There are a wide variety of shore based industries requiring electro-technical experience.</p>	
Electrician		<p>An electrician may specialise to progress to ETO.</p> <p>There are technician opportunities in the ports sector.</p>	<p>There are a wide variety of shore based industries requiring electrical experience.</p>	General electrician.
Support Staff/Ratings				
DO NOT hold the Officer of the Watch Certificate of Competence				
Seaman Grade 1	<p>Able-bodied Seafarer</p> <p>A.B.</p> <p>Bosun</p> <p>Deck Chief</p> <p>Petty Officer</p> <p>Senior Rating</p> <p>General Purpose Rating</p> <p>General Purpose Seafarer</p> <p>G.P.</p>	<p>An experienced Seaman Grade 1 could be promoted to a Senior Rating position by the company, and they would then have a supervisory role.</p> <p>Significant sea experience will be an advantage in a number of support roles, including operation, safety and marine assistant.</p> <p>Opportunities in marine leisure include commercial yachts.</p> <p>Seagoing experience valued in ports industry eg in marine operations or in VTS Officer posts (with further training).</p> <p>It is possible for Ratings to undertake officer training and</p>	<p>Technician role in a non-maritime sector (for G.P only).</p>	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
		<p>apply for officer positions once they have certification and sea time.</p> <p>A G.P. may progress through either the deck or the engineering rating route. A GP's engineering experience may qualify them for a technician role in the port sector.</p>		
Seaman Grade 2	<p>Able-bodied Seafarer</p> <p>A.B.</p> <p>Ordinary Seafarer</p> <p>O.S.</p> <p>General Purpose Rating</p> <p>General Purpose Seafarer</p> <p>G.P.</p>	<p>An experienced Seaman Grade 2 can progress to Seaman Grade 1.</p> <p>Opportunities in marine leisure include commercial yachts.</p> <p>Seagoing experience valued in ports industry eg in marine operations.</p> <p>It is possible for Ratings to undertake officer training and apply for officer positions once they have certification and sea time.</p> <p>A G.P. may progress through either the deck or the engineering rating route. A GP's engineering experience may qualify them for a technician role in the port sector.</p>	Technician role in a non-maritime sector (for G.P. only).	
Pumpman		Technician opportunities in ports sector.	<p>Technician opportunities in non-maritime sector.</p> <p>Fire Service, Off-shore petroleum sector.</p>	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
Fitter	Engineering Maintenance Fitter	It is possible for Ratings to undertake officer training and apply for officer positions once they have certification and sea time.		
Motorman	Mechanic	May progress to senior engineering rating level, such as Fitter. It is possible for Ratings to undertake officer training and apply for officer positions once they have certification and sea time.	Fire Service.	
General hand	Oiler/Wiper	May progress to senior engineering rating level, such as Fitter.	Fire Service.	
Cook	Ship's Cook Chief Cook	With experience can progress to Chief Cook.	Hotel, restaurant and catering sectors.	
Steward		Could work in port operations.	Hotel work.	
Trainee Rating	Junior Ordinary Seafarer	Seaman Grade 2.		
Staff Specific to Tugs				
Tug Master	Tug Skipper	Seagoing experience valued in ports industry eg in marine operations. Fleet Management.	Other commercial vessels outside of the Merchant Navy.	
Tug Engineer			There are a wide variety of shore based industries requiring engineering experience.	
Tug Hand	Tug G.P. Tug Deckhand	Seagoing experience valued in ports industry eg in marine operations.		
Hospitality Staff Specific to Passenger Vessels				
Cruise Director		Member/Head of Corporate Entertainment for	Non-maritime related sectors such as events management,	Entertainment industry.

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
		Cruise Company.	entertainment, hospitality, marketing and tourism.	
Chief Purser	Hotel Service Officer HR Officer	Other positions include Financial Controller and Corporate Purser (for a number of ships). Financial management role.	As finance manager/director in hospitality sector. With an accounting qualification can work in a number of sectors.	
Shore-based Ship Management				
Fleet Operations				
Fleet Director	Commercial Director	Chief Executive. Ports Senior Management positions.	Logistics, business, management.	
Logistics Co-ordination and Training – Fleet Personnel				
Personnel Manager	Human Resources Manager	Personnel Director. Related industries might include ports and marine leisure.	Personnel management positions in related sectors might include transport/distribution, hospitality and catering.	
Training Manager	Head of Training	Training Director. Related industries might include ports and marine leisure.	Training management positions in related sectors might include manufacturing, engineering, transport/distribution, hospitality and catering.	
Personnel Officer	Human Resources Officer	Senior personnel officer or manager. Other opportunities include a sideways move to training. Related industries might include ports and marine leisure.	Personnel officer positions in related sectors might include transport/distribution, hospitality and catering.	
Training Officer		Senior training officer or manager. Opportunities in personnel. Related industries might include ports and marine leisure.	Training officer positions in related sectors might include manufacturing, engineering, transport/distribution, hospitality and catering.	

Job title	Alternative title	Opportunities within the Maritime sector	Opportunities in other sectors	Established routes from other sectors
General Operations				
Operations Manager	Safety Manager Quality Manager	Operations Director, Safety Director, Fleet Director Related industries include ports and harbours and marine leisure.	Related sectors might include manufacturing, engineering and transport/distribution	
Safety Officer	Quality Officer	Senior Safety Officer, Safety Manager Related industries include ports and harbours and marine leisure.	Related sectors might include manufacturing, engineering and transport/distribution	
Marine Operations				
Marine Superintendent		Management opportunities, such as operations and safety.		
Marine Technical Assistant		Deputy Marine Superintendent, Port Operations Manager, Port Operations Operative, Marina Operative.		
Engineering Operations				
Engineering Superintendent	Technical Superintendent	Engineering management or director role. Port engineer, Port Engineering manager, related engineering fields.	There are a wide variety of shore based industries requiring engineering experience.	
Assistant Engineering Superintendent	Assistant Technical Manager	Engineering Superintendent or Engineering Management role. Port Engineering Supervisor.	There are a wide variety of shore based industries requiring engineering experience.	
Engineering Technical Assistant		Assistant Engineering Superintendent. Port technician. Draughtsman/CAD technician, Marine craftsperson.	There are a wide variety of shore based industries requiring engineering experience.	

Ports and Harbours

Job title	Alternative Title	Opportunities within maritime sector	Opportunities in other sectors	Established routes from other sectors
Port Operations				
Managing Director	Chief Executive Port Director Port Manager General Manager			Recruitment from senior management roles in other sectors eg warehousing and distribution
Port Operations Director	Operations Director Port Operations Manager Port Manager	Managing Director	Other management roles using transferable skills and into other logistic environments such as warehouse distribution centres	Recruitment from senior management roles in other sectors eg warehousing and distribution
Security Manager				Routes from security positions in other sectors possible
Ports Facility Security Manager	PFSM ISPS manager	Security Manager	Consultant role	Routes from security positions in other sectors possible
Safety Manager	Head of Health and Safety Health and Safety Manager Safety Officer Safety Advisor Safety, Health and Environmental Manager		Other safety management roles and auditing/consultant roles	Routes from safety occupations in other sectors possible
Harbour Master	Chief Harbourmaster Haven Master Marine Operations Manager	Port Manager Port Director Port Operations Director	Operations management roles in other sectors.	
Deputy Harbour Master	Assistant Harbour Master Assistant Marine Operations Manager Barge Manager Berthing Master Dock Master Harbour Superintendent Haven Master Deputy Marine Manager Piermaster Pilotage	Harbour Master	Supervisory roles in other sectors.	

Job title	Alternative Title	Opportunities within maritime sector	Opportunities in other sectors	Established routes from other sectors
	Manager			
Hydrographic Surveyor	Senior Hydrographic Surveyor Base Surveyor		Sales roles in selling hydrographic software	
Port Operations Manager	Cargo Operations Manager Passenger Operations Manager Terminal Operations Manager Wharf Manager Stevedoring Superintendent Operations Superintendent Assistant Operations Director Operations Superintendent Duty Operations Manager Operations Manager	Port Operations Director	Other operational roles in sectors such as warehousing and logistics Consultant role.	
Marine Pilot		Harbour master VTS Officer	Consultant role. Opportunities exist in lecturing and teaching. Where Marine Pilots have a Merchant Navy background there are also opportunities in insurance, legal work, shipping companies and superintendency	
Vessel Traffic Services Officer	VTS Officer VTS Operative Port Control Room Officer Port Control Officer Marine Officer Marine Operator	With Merchant Navy background, opportunities to become Harbour Master, Marine Pilot.	Opportunities in traffic control for haulage and airports (with further training).	

	Job title	Alternative Title	Opportunities within maritime sector	Opportunities in other sectors	Established routes from other sectors
Port Operations Supervisor	Cargo Operations Supervisor	Stevedoring Supervisor Quay Foreman Operations Foreman Operations Supervisor Crane Foreman Superintendent Terminal supervisor	Port Operations Manager	Supervisory roles in other sectors eg warehousing and distribution	
	Marine Operations Supervisor	Berthing Supervisor Dredging Officer Bosun Mate Launch Manager Berthing Master	Opportunities to move to a VTS Officer role, with further training to IALA V-103. Opportunities to become a Marine Pilot (enhanced if candidate has experience as a Ship's Master with SCTW II/2)		
	Passenger Operations Supervisor	Cruise Supervisor	Port Operations Manager Opportunities in Merchant Navy (eg Chief Purser)		
Port Operations Team Leader	Cargo Operations Team Leader	Crane Co-ordinator Chargehand	Cargo Operations Supervisor		
	Marine Operations Team Leader	Coxswain Leading Deckhand	Marine Operations Supervisor		
	Passenger Operations Team Leader	Operations Co-ordinator	Passenger Operations Supervisor		

	Job title	Alternative Title	Opportunities within maritime sector	Opportunities in other sectors	Established routes from other sectors
Port Operative	Cargo Operative (Stevedore)	Driver/Car Driver Cargo Handler Checker Clamp Operator Crane driver Lasher Forklift Truck Driver Hatchman Plant Operator Rigger Tugmaster Driver Link Span Operator Weighbridge Operator Tally Clerk	Cargo Operations Team Leader		Cargo operatives can come from the construction industry (eg crane drivers) and road haulage industry (eg HGV drivers)
	Marine Operative	Able Seaman Boatman Berthing Operator Shipmoorer Dredger Hand Lock controller Deck hand	Marine Operations Team Leader		
	Passenger Operative	Customer Services Assistant Passenger Assistant Baggage Handler Traffic Controller	Passenger Operations Team Leader		
	General Operative		Port Operations Team Leader		
Engineering Operations					
	Director of Engineering	Head of Support Services General Manager Chief Engineer Port engineer Head of engineering			
	Port Engineer	Engineering Manager Engineering Resources Manager	Director of Engineering		

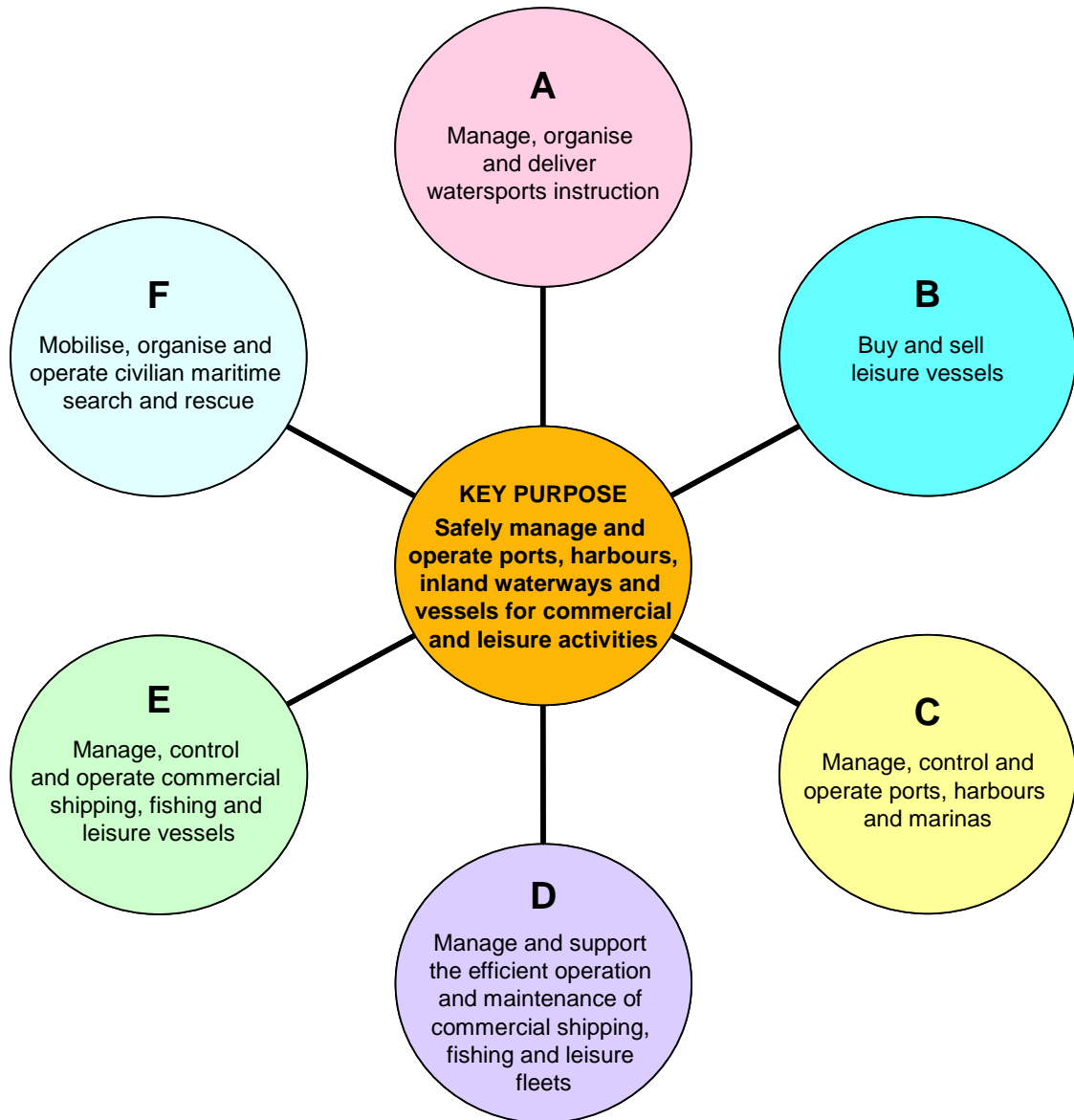
Job title	Alternative Title	Opportunities within maritime sector	Opportunities in other sectors	Established routes from other sectors
	Marine Engineering Manager Terminal Engineer			
Civil Engineer	Construction Engineer Development Engineer Civil Foreman			
Engineering Manager	Engineering Superintendent Plant Engineer Manager	Port Engineer		
Engineering Supervisor	Engineering Foreman Electrical Foreman Maintenance Foreman Mechanical Foreman	Engineering Manager (may need further engineering qualifications)		
Technician	Electrician Engineering Technician Fitter Mechanical Fitter Maintenance Fitter General Engineering Assistant Third Engineer Marine Maintainer Machinist Welder Fabricator Electronics Technician Tyre Fitter Trailer Fitter	Engineering Supervisor Merchant Navy opportunities as a rating (eg Fitter)	Technician role in a non-maritime sector.	
Maintenance Assistant	Workshop Labourer	Technician Merchant Navy opportunities as a rating (eg fitter)		

Appendix E

Functional Map

Overview of functional map for the maritime industry

The diagram below contains the Key Purpose Statement (central circle) and the Key Functional Areas (outer circles) for the maritime sector.



The following pages detail the functions for each of the Key Functional Areas, from Area A through to Area D. Note that Area CD has been formed by an overlap of functions for Key Functional Area C and Key Functional Area D.

KEY: normal text= NOS within MSA footprint; **text in bold**= NOS outside of MSA footprint; *text in italics*= functions not covered by NOS

Key Functional Area	Principal Function/Role	Function
Manage, organise and deliver watersports instruction		A1.1 Manage the use of physical resources
		A1.2 Manage the use of financial resources
		A1.3 Create effective working relationships
		A1.4 Lead the work of teams and individuals to achieve their objectives
		A1.5 Respond to poor performance in the team
		A1.6 Develop productive working relationships
		A1.7 Select personnel for activities
		A1.8 Manage the performance of teams and individuals
		A1.9 Plan and organise services and operations to meet expectations and requirements
		A1.10 Maximise product sales
		A1.11 Help customers choose between products
		A1.12 Maintain reliable customer service
		A1.13 Manage activities to meet requirements
		A1.14 Promote services
		A1.15 Process payments for purchases
		A1.16 Set up take down and store equipment
		A1.17 Promote safety in the sport and activity environment
		A1.18 Provide a centre reception service
		A1.19 Resolve customer service problems
		A1.20 Support the protection of children from abuse
		A1.21 Promote a culture of health and safety
		A1.22 Investigate and evaluate incidents and complaints in the workplace
		A1.23 Conduct an assessment of risk in the workplace
		A1.24 Develop procedures to control risks to health and safety

		A2.1 Plan a coaching programme
		A2.2 Plan a long term coaching programme
		A2.3 Deal with accidents and emergencies
		A2.4 Support the protection of children from abuse
		A2.5 Plan and prepare a series of coaching sessions
	A2 Coaching, teaching, instructing	A2.6 Maintain an environment in which participants can improve their performance
		A2.7 Coach participants to improve their performance
		A2.8 Evaluate coaching sessions and develop personal coaching practice
		A2.9 Implement a coaching programme
		A2.10 Develop participant performance through progressive sessions
		A2.11 Establish and maintain an environment that will assist participant progression
		A2.12 Evaluate a coaching programme and continuously develop own practice
B. Buy and sell leisure vessels	B1 Sell products and services at trade fairs, exhibitions or conferences	
	B2 Sell products or services in international markets	
	B3 Manage and facilitate case negotiations	
	B4 Monitor the delivery of products	
	<i>B5 Assess customers financial requirements</i>	
	<i>B6 Put together sales particulars</i>	
	<i>B7 Arrange trial sails</i>	
	<i>B8 Ensure compliance with legal and regulatory requirements</i>	
	<i>B9 Demonstrate compliance with legal and regulatory requirements for sales activities</i>	
C. Manage, control and operate ports, harbours and marinas	C1 Provide a Harbour Master service	
	C2 Provide Marine Pilotage	
	C3 Undertake VTS operations	
	C4 Undertake hydrographic surveying activities	C4.1 Spatial Data Management
		<i>C4.2 Provide data for nautical charts and maps</i>

		<i>C4.3 Provide tenders and results for internal and external clients</i>
		<i>C4.4 Provide accurate and reliable information for other disciplines</i>
		<i>C4.5 Source information on sea bed type, water movements and waves</i>
		<i>C4.6 Problem solve for colleagues working offshore</i>
	C5 Supervise port operations	
	C6 Undertake and support port operations	
	C7 Manage security	
	C8 Manage occupational health and safety	
C. Manage, control and operate ports, harbours and marinas D. Manage and support the efficient operation and maintenance of commercial shipping, fishing and leisure fleets	CD1 Manage and lead	
	CD2 Provide engineering leadership	
	CD3 Provide engineering management	
	CD4 Perform electrical and electronic servicing	
	CD5 Perform engineering maintenance	
	CD6 Perform engineering operations	
	CD7 Provide engineering technical support	
D Manage and support the efficient operation and maintenance of commercial shipping, fishing and leisure fleets	D1 Perform marine engineering	
	D2 Perform engineering maintenance and installation	
		D3.1 Develop a personnel services delivery strategy to support the organisation
		D3.2 Develop a strategy and plan to provide all people resources for the organisation
		D3.3 Develop a strategy and plan for learning and development
		D3.4 Design, deliver and evaluate recruitment procedures
		D3.5 Design, deliver and evaluate the delivery of personnel procedures in international contexts
		<i>D3.6 Provide guidance on the staffing of company vessels</i>

	<i>D3 Manage the logistics, co-ordination and training of fleet personnel</i>	<i>D3.7 Manage the planning, recruiting and allocating of appropriate employees to comply with statutory requirements</i>
		<i>D3.8 Review training provision to ensure that employees are developed to meet current and future requirements</i>
		D3.9 Develop a strategy and plan for learning and development
		D3.10 Identify the learning and development needs of the organisation
		D3.11 Design learning programmes
		D3.12 Develop training sessions
		<i>D3.13 Design and tailor training programmes to meet seagoing, operational, technical and health and safety requirements</i>
		<i>D3.14 Ensure that training programmes and practices comply with statutory requirements</i>
		D4.1 Operate recruitment procedures
		D4.2 Operate employee relations procedures
		<i>D4.3 Provide personnel related support for employees on vessels and liaise with family members</i>
	<i>D4 Support the logistics, co-ordination and training of fleet personnel</i>	<i>D4.4 Arrange visas, immigration paperwork and travel to and from vessels for employees</i>
		<i>D4.5 Liaise with external recruitment companies to assign crew to vessels</i>
		<i>D4.6 Arrange routine industry standard medicals for employees on vessels</i>
	<i>D4.7 Monitor employee documentation and certification requirements to ensure compliance</i>	
	D4.8 Organise business travel and accommodation	
	D4.9 Support the delivery of learning and development procedures	
	<i>D4.10 Maintain and monitor a record of training compliance</i>	

		<i>D4.11 Organise training courses, including travel, accommodation, visas and medicals for attendees</i>
		<i>D4.12 Schedule training to ensure that applicable refresher periods are maintained</i>
E Manage, control and operate commercial shipping, fishing and leisure vessels		E1.1 Ensure the stability and watertight integrity of a vessel
		E1.2 Control the response to emergencies on board a vessel
		E1.3 Direct the response to emergencies on board a vessel
	E1 Direct and control a vessel and ensure vessel safety	E1.4 Provide medical services on board a vessel
		E1.5 Organise the maintenance of the vessel's hull, fittings and equipment during operational activities
		E1.6 Ensure safe, legal and effective working practices on board a vessel
		E1.7 Ensure compliance with the commercial obligations of a vessel
		E2.1 Contribute to the stability and watertight integrity of a vessel
		E2.2 Respond to emergencies on board a vessel
	E2 Manage and safely operate a vessel	E2.3 Maintain safe, legal and effective working practices on board a vessel
		E2.4 Create, maintain and enhance productive working relationships on board a vessel
		E2.5 Take personal emergency action on board a vessel
		E2.6 Take control of survival craft and rescue boats
		E3.1 Maintain steelwork and deck equipment on board a vessel
	E3 Support the management, operation and safety of a vessel	E3.2 Maintain personal health, safety and environmental standards on board a vessel
		E3.3 Take personal emergency action on board a vessel
		E3.4 Take control of survival craft and rescue boats
		E3.5 Move and handle resources

	E3.6 Confirm work activities and resources for the work
	E3.7 Confirm the occupational method of work
	E3.8 Erect and dismantle access/working platforms
	E3.9 Prepare surfaces for painting/decorating
	E3.10 Apply paint systems by brush and roller
	E3.11 Food preparation and cooking
	E4.1 Plan a navigational voyage
	E4.2 Control navigation and vessel-handling
E4 Direct and control the navigation of a vessel	E4.3 Direct the response to navigation emergencies
	E4.4 Plan and direct vessel operations
	E5.1 Maintain a navigational watch
	E5.2 Initiate the response to navigation emergencies
E5 Navigate a vessel	E5.3 Monitor and control vessel operations
	E5.4 Control vessel mooring, anchoring and securing operations
	E6.1 Contribute to maintaining a navigational watch
E6 Support the navigation of a vessel	E6.2 Contribute to vessel operations
	E6.3 Contribute to vessel mooring, anchoring and securing operations
	E7.1 Manage the Operation of Vessel Propulsion Machinery and Ancillary Systems
	E7.2 Manage the Operation of Vessel Auxiliaries, Auxiliary Boilers and Service Machinery
E7 Direct and control vessel engineering operations	E7.3 Manage the operation of Vessel Electrical, Electronic and Control Equipment
	E7.4 Manage the Safety of Vessel High Voltage Electrical Systems
	E7.5 Carry out Maintenance of Vessel Telecommunication and Navigation Systems
	E7.6 Manage Maintenance of Vessel Electrical Systems
	E7.7 Manage Maintenance of Vessel Instrumentation and Control Systems
	E7.8 Identify and Report Variations in Vessel

		Electrical, Instrumentation and Control Systems
		E7.9 Diagnose the Causes of Variations in Vessel Mechanical Systems
		E7.10 Diagnose the Causes of Variations in Vessel Electrical and Electronic Systems
		E7.11 Diagnose the Causes of Variations in Vessel Instrumentation and Control Systems
		E7.12 Plan and Schedule Vessel Engineering Operations
		E7.13 Direct Vessel Engineering Operations
		E7.14 Plan Maintenance for Vessel Engineering Systems
		E7.15 Develop Maintenance Plans for Vessel Engineering Systems
		E7.16 Prepare Vessel Response Plans for Engineering Contingency Situations
		E7.17 Carry Out Maintenance of Vessel Telecommunication and Navigation Systems
		E7.18 Diagnose the Causes of Variations in Vessel Telecommunications and Navigation Systems
		E8.1 Prepare and Operate Vessel Propulsion Machinery and Ancillary Systems
		E8.2 Operate Vessel Auxiliaries and Service Machinery
		E8.3 Operate and Adjust Vessel Electrical Equipment
		E8.4 Manage the Safety of Vessel High Voltage Electrical Systems
	E8 Manage, operate and maintain vessel engineering machinery and equipment	E8.5 Contribute to Maintenance of Vessel Electrical Equipment
		E8.6 Carry out Maintenance of Vessel Electrical Machinery and Systems
		E8.7 Carry out Maintenance of Vessel Mechanical Machinery and Systems
		E8.8 Monitor and Operate Engine Room Machinery
		E8.9 Take Charge of an Engine Room Watch
	E9 Support the operation and maintenance of vessel engineering machinery and equipment	E9.1 Contribute to an Engine Room Watch

		E9.2 Monitor and Operate Engine Room Machinery
		E9.3 Contribute to Maintenance of Vessel Mechanical Equipment
		E10.1 Support fishing operations
		E10.2 Support catch handling and stowage operations
		E10.3 Assemble fishing gear
		E10.4 Repair fishing gear
		E10.5 Operate fishing equipment
E10 Manage, undertake and support fishing operations		E10.6 Handle and stow the catch
		E10.7 Manage and control fishing operations
		E10.8 Select, rig and maintain fishing operations
		E10.9 Implement and maintain quality assurance for fishing operations
		E10.10 Carry out fisheries liaison duties on board ship
		E10.11 Undertake responsible fishing
E11 Direct and control specialist vessels		E11.1 Control tug operations
		E11.2 Direct tug operations
		E12.1 Plan and deliver onsite entertainment
		E12.2 Deal with travel and tourism emergencies
E12 Manage services on passenger commercial and leisure vessels		E12.3 Plan and conduct welcoming events
		E12.4 Manage the delivery of a tour
		E12.5 Accounting
		E12.6 Payroll administration
		E12.7 Maintain the reception service
		E12.8 Ensure the provision of counter services
		E12.9 Operate a multi-currency till service
		E13.1 Provide food and drink
E13 Provide services on passenger commercial and leisure vessels		E13.2 Provide customer service
		E13.3 Provide a housekeeping and front office service
F1 Operate Lifeboat Station		<i>F1.1 Undertake station administration</i>

F Mobilise, organise and operate civilian maritime search and rescue		F2.1 Carry out fire fighting procedures
		F2.2 Carry out emergency and survival procedures
	F2 Undertake critical Lifeboat safety procedures	F2.3 Select and use protective and safety equipment
		F2.4 Use pyrotechnics
		F2.5 Lifeboat layout and equipment
		F3.1 Manage Lifeboat/Hovercraft launch and recovery
	F3 Launch and recover Lifeboat/Hovercraft	F3.2 Launch Lifeboat
		F3.3 Recover Lifeboat
		F4.1 Command Lifeboat/Hovercraft
		F4.2 Manage anchoring operations
		F4.3 Manage the towing of other vessels
		F4.4 Select and maintain cordage and wire
	F4 Handle Lifeboat/Hovercraft and general seafaring	F4.5 Maintain a proper lookout
		F4.6 Assist with anchoring operations
		F4.7 Pass and recover tow
		F4.8 Moor and berth the Lifeboat
		F4.9 Deploy, operate and recover drogue
		F4.10 Helm the Lifeboat
		F4.11 Deploy and recover the daughter boat
		F4.12 Handle X/Y/Boarding boats
		F4.13 Deploy, operate and recover breeches buoy
		F4.14 Carry out helicopter transfers
	F5 Carry out search and rescue operations	F5.1 Plan and execute search and rescue operations
	F5.2 Locate and recover casualty	
F6 Establish and maintain radio communications	F6.1 Transmit and receive communications by VHF	
	F6.2 Transmit and receive communications by MF/HF	
	F7.1 Identify targets and pilot Lifeboat using radar	
F7 Operate navigational equipment	F7.2 Pilot Lifeboat/Hovercraft using charts and other publications	
	F7.3 Pilot Lifeboat/Hovercraft using electronic navigation equipment	
F8 Fault diagnosis and rectification	F8.1 Diagnose faults	
	F8.2 Rectify faults	
	F9.1 Start and stop engines and auxiliaries	

	<i>F9 Operate Lifeboat propulsion and auxiliary systems</i>	<i>F9.2 Operate main engines and generator systems</i>
		<i>F9.3 Operate pumps and control equipment</i>
		<i>F9.4 Operate Lifeboat machinery</i>
	<i>F10 Undertake planned maintenance</i>	<i>F10.1 Maintain and service Lifeboat equipment</i>
		<i>F10.2 Equipment performance and recording</i>

Appendix F

Research References

Marine Leisure

UKSA *the works*

Seavision UK Career Guide

<http://www.rya.org.uk/Courses/workingafloat/>

<http://www.warsashcentre.co.uk/images/Deck%20Flow%20chart.pdf>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile500/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile973/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile1150/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile968/>

Maritime Search and Rescue

RNLI Training Manual

Small Rescue Boat Code, MCA

www.mcga.gov.uk

Search and Rescue Framework for the UK, MCA http://www.mcga.gov.uk/c4mca/mcga-uk_sar_framework_document.pdf

Merchant Navy

www.mcga.gov.uk

MCA Marine Guidance Notes

Entry and Career Progression in the Ship Management Sector of the Shipping Industry, MNTB Sector Workforce Development Plan, MNTB

Considering a Career in the Marine Environment?, IMAREST

www.mntb.org.uk

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile366/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile485/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile973/>

Sea Fishing

Career Pathways on Deck

<http://www.seafish.org/sea/training.asp?p=ef247>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile873/>

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile872/>

Ports

Hydrographics Careers Leaflet, International Federation of Hydrographic Societies (DRAFT)

http://www.dft.gov.uk/stellent/groups/dft_shipping/documents/page/dft_shipping_505258-24.hcsp

<http://www.learndirect-advice.co.uk/helpwithyourcareer/jobprofiles/profiles/profile935/>

[http://www.mcga.gov.uk/c4mca/mcga-dops_pr_newsroom-press-releases-](http://www.mcga.gov.uk/c4mca/mcga-dops_pr_newsroom-press-releases-release.htm?mcga_news_id=269&month=1&year=2002)

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<http://www.royal-navy.mod.uk/server.php?show=conWebDoc.363&changeNav=3533>

<http://www.warsashcentre.co.uk/c-radar.shtml>

www.harbourmaster.org/harbour-master.htm

Appendix G

Key Maritime Organisations

General

The International Maritime Organisation
The Maritime and Coastguard Agency
Institute of Marine Engineering, Science and Technology (IMarEST)

Marine Leisure

British Marine Federation
Royal Yachting Association
Royal Institution of Naval Architects
UK Sailing Academy
Yacht Brokers, Designers and Surveyors Association
Seavision UK

Merchant Navy

Merchant Navy Training Board
The Chamber of Shipping
Institute of Marine Engineering, Science and Technology
The Marine Society and Sea Cadets

Sea Fishing

Sea Fish Industry Authority (Seafish)

Ports

Port Skills and Safety Limited
British Ports Association
International Association of Ports and Harbours
International Federation of Hydrographic Societies
International Harbour Masters' Association
Nautical Institute
UK Maritime Pilot's Association

Emergency and Rescue

Royal National Lifeboat Institution
HM Coastguard