



ODESA MARITIME INSTITUTE

ON BOARD TRAINING RECORD BOOK
FOR OFFICERS IN CHARGE
OF A NAVIGATIONAL WATCH
(DECK CADETS)

On ships of 500 gross tonnages or more
Based on the competence requirements
of the 2010 amendments to
the IMO STCW Convention



Deck Cadet Training Record Book

For Prospective 3rd Officer

*Training Record Book for candidate for certification of Officer in Charge of
a Navigational Watch on ships of 500 gross tonnage or more*

Full Name	
Date of birth	
Home Address	
Tel or MOB	
Email	



Photo

Date of issue:

The name of the educational organization
that handed out the book

University / College / Training Centre

Name	
Position:	
University / College / Training Centre	
Address	
Tel or MOB	
E-mail	
Record Book – No	



Deck Cadet Training Record Book

For Prospective 3rd Officer

The Training Record Book was developed partially in compliance with the requirements to STCW taking into consideration the regulations of 2010 Manila amendments and PMM higher rank training requirements.

The Book provides prospective 3rd officers, with onboard training under effective and well-planned program

The contained in this book have been designed to help ensure the trainees meet the requirements of the company and the expectations for its 3rd officers.

Some ships will provide opportunities for better training and assessment than others. Some Ship-board Training Officers (STO) will find it easier to ensure effective training and valid, reliable, flexible and fair assessment, depending upon the type of vessel and the activities on board. It should be borne in mind that the aim is for all STO's to provide the prospective officers with the appropriate knowledge and skills and an accurate record of progress.

The main functions (navigation, cargo handling and stowage, controlling the operation of the ship and care for persons on board) follow STCW requirements (STCW 2010 Table A-II/1). The practical tasks for the competence "Application of leadership and team working skills" are addressed in other related competences in the three main functions.

The tasks for specialized vessels (oil and chemical tankers, gas tankers, polar vessels and ships operating in winter conditions,) are addressed in suitable Sections of the Book. The policy applied with respect to these specialized vessels is to address only the main competences applicable to the prospective officer and which suit the onboard training environment.

While the advice given in this Book has been developed using the best information currently available, it is intended purely as guidance to be used at the user's own risk. No responsibility is accepted by organization who or which has been in any way concerned with the furnishing of information or data, the compilation, publication or any translation for the accuracy of any information or advice given herein or for any omission here from or from any consequences whatsoever resulting directly or indirectly from compliance with or adoption of guidance contained herein even if caused by a failure to exercise reasonable care.

Normally completion of this book does not itself constitute an official assessment of competence. The PMM procedure will be followed for the promotion of the candidate to the officer's role.



Deck Cadet Training Record Book

For Prospective 3rd Officer

Table of Content

Item	Description	Page
	INTRODUCTION	8
SECTION 1	GUIDE TO COMPLETION	9
1.1.	Purpose of the Record Book	9
1.2.	Scope	9
1.3.	Objectives	10
1.4.	Completion Guidelines	10
SECTION 2	SUMMARY RECORD OF PROGRESS	11
2.1.	The main roles and responsibilities	11
2.2.	Definitions and clarifications	11
2.3.	Training programme	12
2.4.	Shipboard record of services	12
2.5.	Company's Review of the Book	12
2.6.	Maritime Training Institution's Review of the Book	13
2.7.	List of Video or Computer-based Training (CBT) Programme and Learning Management System (LMS) On-Line Training Modules Used	13
PART 1 - FIRST PRACTICE		14
	Shipboard Training Officer's Monthly Review of the Book	15
	Master's Monthly Review of the Book	16
SECTION 3	MANDATORY SAFETY AND SHIPBOARD FAMILIARISATION	17
3.1.	Basic Training as required by Section A-VI/1 paragraph 2 of the STCW Code	17
3.2.	Shipboard Safety and Security Familiarization	18
SECTION 4	PARTICULARS OF SHIPS	20
SECTION 5	INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA	23
SECTION 6	INFORMATION ON TRAINING TASKS AND COMPETENCES TO BE ACHIEVED	25
SECTION 7	TASKS FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH	27
7.1.	Function: Navigation - Celestial navigation	27
7.2.	Function: Navigation - Terrestrial and coastal navigation	28
7.3.	Function: Navigation - Charts and publications	28
7.4.	Function: Navigation - Passage planning	30
7.5.	Function: Navigation - Electronic systems of position fixing and navigation	30
7.6.	Function: Navigation - Equipment - Echo sounders	30
7.7.	Function: Navigation - Equipment - Compass - Magnetic and gyro	31
7.8.	Function: Navigation - Equipment - Steering control systems	31
7.9.	Function: Navigation - Meteorology	31
7.10.	Function: Navigation - Watchkeeping	32
7.11.	Function: Navigation - Navigational equipment	33
7.12.	Function: Ship reporting systems	33
7.13.	Function: Bridge resource management	33
7.14.	Function: Use of radar and ARPA to maintain safety of navigation	34
7.15.	Function: Using radar/ ARPA for collision avoidance	34
7.16.	Function: Use of ECDIS	35
7.17.	Function: Emergencies at sea	35
7.18.	Function: Emergencies in port	36
7.19.	Function: Distress signals	36
7.20.	Function: IMO Standard Marine Communication Phrases	37
7.21.	Function: Use of English in written and oral form	37
7.22.	Function: Transmit and receive information by visual signaling	37
7.23.	Function: Communications - Signaling by flags	38
7.24.	Function: Maneuvering information	38
7.25.	Anchoring and mooring procedures	38
7.26.	Function: Man overboard	39



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 8	CARGO HANDLING AND STOWAGE FOR TANKERS	40
8.1	Function: Cargo operations (Oil Tankers) - loading and discharging	40
8.2.	Function: Cargo operations (Oil Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures.	41
8.3.	Function: Cargo operations (Oil Tankers) – inspection/testing of cargo related equipment	42
8.4.	Function: Cargo operations (Oil Tankers) - Contribute to the safe cargo operations	42
8.5.	Function: Cargo operations (Oil Tankers) - water washing of tanks and tank inspection procedures	44
8.6.	Function: Cargo operations (Oil Tankers) – inspection of cargo pumps and equipment	44
8.7.	Function: Cargo operations (Chemical Tankers) - loading and discharging	44
8.8.	Function: Cargo operations (Chemical Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures	46
8.9.	Function: Cargo operations (Chemical Tankers) - inspection/ testing of cargo related equipment	46
8.10.	Function: Cargo operations (Gas Tankers)	47
SECTION 9	SHIPBOARD OPERATIONS (POLAR WATER / WINTER CONDITIONS)	49
SECTION 10	CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD	50
10.1.	Function: Bunkering procedures	50
10.2.	Function: Pollution prevention regulations	50
10.3.	Function: Bilge and ballast operations	51
10.4.	Function: Ship stability (including understanding of the fundamentals of watertight integrity)	51
10.5.	Function: Ship construction	51
10.6.	Function: Securing vessel for sea	52
10.7.	Function: Seamanship practices	52
10.8.	Function: Operation and maintenance of fire fighting appliances (FFA)	53
10.9.	Function: Fire fighting	54
10.10.	Function: Life saving appliances (LSA)	55
10.11.	Function: Practical application of medical guides and advice by radio and medical equipment on board	56
10.12.	Function: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia	57
10.13.	Function: Familiarize with various statutory regulations and requirements	57
10.14.	Function: Safety of personnel and ship	58
10.15.	Function: Ship security	58
SECTION 11	STEERING CERTIFICATE	60
11.1	Cadet's Steering Record (By compass (day))	61
11.2	Cadet's Steering Record (By compass (night))	62
11.3.	Cadet's Steering Record (By sight (without aid of acompass))	63
11.4	Cadet's Steering Record (While entering and leaving port)	64
11.5.	Steering Certificate	65
SECTION 12	RECORD OF WATCHKEEPING	66
12.1.	Record of Bridge Watchkeeping	66
12.2.	Record of Port Watches	67
12.3.	Bridge Watchkeeping Certificate	68
12.4.	Port Watchkeeping Certificate	68
SECTION 13	PROJECT WORK	69
13.1	PROJECTS: NAVIGATION	69
13.2.	PROJECTS: CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD	69
13.3.	ADDITIONAL PROJECTS FOR OIL AND CHEMICAL TANKERS	70
PART 2 - SECOND PRACTICE		72
	Shipboard Training Officer's Monthly Review of the Book	73
	Master's Monthly Review of the Book	74



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 3	MANDATORY SAFETY AND SHIPBOARD FAMILIARISATION	75
3.1.	Basic Training as required by Section A-VI/1 paragraph 2 of the STCW Code	75
3.2.	Shipboard Safety and Security Familiarization	75
SECTION 4	PARTICULARS OF SHIPS	79
SECTION 5	INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA	81
SECTION 6	INFORMATION ON TRAINING TASKS AND COMPETENCES TO BE ACHIEVED	83
SECTION 7	TASKS FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH	85
7.1.	Function: Navigation - Celestial navigation	85
7.2.	Function: Navigation - Terrestrial and coastal navigation	86
7.3.	Function: Navigation - Charts and publications	86
7.4.	Function: Navigation - Passage planning	87
7.5.	Function: Navigation - Electronic systems of position fixing and navigation	88
7.6.	Function: Navigation – Equipment - Echo sounders	88
7.7.	Function: Navigation – Equipment - Compass - Magnetic and gyro	89
7.8.	Function: Navigation – Equipment - Steering control systems	89
7.9.	Function: Navigation – Meteorology	90
7.10.	Function: Navigation – Watchkeeping	91
7.11.	Function: Navigation – Navigational equipment	92
7.12.	Function: Ship reporting systems	92
7.13.	Function: Bridge resource management	93
7.14.	Function: Use of radar and ARPA to maintain safety of navigation	93
7.15.	Function: Using radar/ ARPA for collision avoidance	94
7.16.	Function: Use of ECDIS	94
7.17.	Function: Emergencies at sea	95
7.18.	Function: Emergencies in port	95
7.19.	Function: Distress signals	96
7.20.	Function: IMO Standard Marine Communication Phrases	96
7.21.	Function: Use of English in written and oral form	97
7.22.	Function: Transmit and receive information by visual signaling	97
7.23.	Function: Communications - Signaling by flags	97
7.24.	Function: Maneuvering information	98
7.25.	Anchoring and mooring procedures	98
7.26.	Function: Man overboard	99
SECTION 8	CARGO HANDLING AND STOWAGE FOR TANKERS	100
8.1	Function: Cargo operations (Oil Tankers) - loading and discharging	100
8.2.	Function: Cargo operations (Oil Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures.	101
8.3.	Function: Cargo operations (Oil Tankers) – inspection/testing of cargo related equipment	102
8.4.	Function: Cargo operations (Oil Tankers) - Contribute to the safe cargo operations	102
8.5.	Function: Cargo operations (Oil Tankers) - water washing of tanks and tank inspection procedures	104
8.6.	Function: Cargo operations (Oil Tankers) – inspection of cargo pumps and equipment	104
8.7.	Function: Cargo operations (Chemical Tankers) - loading and discharging	105
8.8.	Function: Cargo operations (Chemical Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures	106
8.9.	Function: Cargo operations (Chemical Tankers) - inspection/ testing of cargo related equipment	107
8.10.	Function: Cargo operations (Gas Tankers)	107
SECTION 9	SHIPBOARD OPERATIONS (POLAR WATER / WINTER CONDITIONS)	110
SECTION 10	CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD	111
10.1.	Function: Bunkering procedures	111
10.2.	Function: Pollution prevention regulations	111
10.3.	Function: Bilge and ballast operations	112
10.4.	Function: Ship stability (including understanding of the fundamentals of watertight integrity)	112



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.5.	Function: Ship construction	113
10.6.	Function: Securing vessel for sea	113
10.7.	Function: Seamanship practices	113
10.8.	Function: Operation and maintenance of fire fighting appliances (FFA)	114
10.9.	Function: Fire fighting	116
10.10.	Function: Life saving appliances (LSA)	116
10.11.	Function: Practical application of medical guides and advice by radio and medical equipment on board	117
10.12.	Function: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia	118
10.13.	Function: Familiarize with various statutory regulations and requirements	118
10.14.	Function: Safety of personnel and ship	119
10.15.	Function: Ship security	120
SECTION 11	STEERING CERTIFICATE	121
11.1	Cadet's Steering Record (By compass (day))	122
11.2	Cadet's Steering Record (By compass (night))	123
11.3.	Cadet's Steering Record (By sight (without aid of acompass))	124
11.4	Cadet's Steering Record (While entering and leaving port)	125
11.5.	Steering Certificate	126
SECTION 12	RECORD OF WATCHKEEPING	127
12.1.	Record of Bridge Watchkeeping	127
12.2.	Record of Port Watches	128
12.3.	Bridge Watchkeeping Certificate	129
12.4.	Port Watchkeeping Certificate	129
SECTION 13	PROJECT WORK	130
13.1	PROJECTS: NAVIGATION	130
13.2.	PROJECTS: CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD	130
13.3.	ADDITIONAL PROJECTS FOR OIL AND CHEMICAL TANKERS	131



INTRODUCTION

In 2010, the IMO Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) was revised and updated.

This ISF Training Record Book takes full account of the new requirements for deck cadets, including new competences for ECDIS (Electronic Chart Display and Information Systems), leadership and team working, and proactive measures to protect the marine environment.

The revised STCW Convention continues to place emphasis on assessment of the outcome of training, i.e. the ability of seafarers to perform their duties competently. In particular, the 2010 Convention requires that a cadet's seagoing service must be properly structured and recorded in a training record book approved by the maritime administration responsible for issuing certificates of competence. The footnotes to the amended STCW text specifically refer to International Shipping Federation (ISF) training record books as an example of such documentation.

The STCW Code, which contains the detailed requirements of the revised STCW Convention, sets out uniform standards for the attainment of competences in the various maritime skills required to qualify as a watchkeeping officer.

The STCW Code also stipulates criteria by which a trainee's attainment of these competences should be assessed by designated on board training officers. The tasks contained in this Record Book have been carefully designed to help ensure that trainees meet the requirements for certification stipulated by the STCW competences and that as far as possible the officers supervising their training use evaluation based on Table A-II/1 of the STCW Code. However, the tasks have been arranged with on board training in mind. The training tasks and associated criteria are, in many instances, presented in more detail than in the text of the Convention. This is to help ensure that trainees make the best use of their seagoing service and to help officers supervising trainees make an objective evaluation of whether they are indeed competent.

Normally completion of this Book will not itself constitute an official assessment of competence. This is the task of government appointed examiners. However, completion of the International Shipping Federation On Board Training Record Book should provide sufficient documentary evidence that a trainee has completed a properly structured on board training programme and demonstrated competence in the skills required by the amended STCW Convention in order to be certificated as an officer in charge of a navigational watch on ships of 500 gross tonnage or more.

The onboard training for cadets is divided into two parts. The first part of the training is intended for cadets who have completed the second year of education at the academy. The second part of the training is intended for cadets who have completed the third year of study at the academy.



FOR THE ATTENTION OF MASTERS, DESIGNATED ON BOARD TRAINING OFFICERS AND CADETS

1.1. Purpose of the Record Book

The purpose of this Record Book is to help ensure that cadets follow a structured programme of training and make best use of their time at sea. In so doing ‘they will gain the practical training and experiences necessary to become competent watchkeeping deck officers in accordance with the STCW Convention, as amended in 2010.

It is therefore important that this guidance is carefully followed, given that this Training Record Book (TRB) will be submitted to government appointed examiners (and may also be made available to instructors at maritime training academies) proper use and completion of this Book is essential. It should be subject to close scrutiny by the masters of the ships on which the cadet serves, by the cadet's designated on board training officers and the shipping company.

During this training deck cadet gains professional skills and experience necessary in the work as a 3rd Officer. On board training skills gained according to the program included in the TRB fulfill the minimum requirements for certification as a 3rd Officer.

During sea training the cadet learns to combine theoretical knowledge from Maritime University/Training Centre and practice. It allows the future 3rd Officer to learn the job on modern and automated seagoing ships.

Sea training properly integrated with theoretical education is necessary for an officer of a contemporary ship. Practical training should be completed under supervision of the master and designated Shipboard Training Officer (STO) and other designated officers. Properly filled TRB is evidence that the deck cadet has achieved professional skills and experience required in the standards of competence according to the STCW 2010 (Table A-II/1 of the STCW Code). That is why the TRB should be precisely filled up.

After completion of shipboard training, TRB is checked and accepted by the University / Training Centre Examination Commission

1.2. Scope

The Onboard Training Record Book for 3rd Officer covering the functions of Officer on Watch (OOW) takes full account of competence standards of the 2010 Manila Amendments and includes structured tasks to ensure that those undergoing training meet the requirements for certification stipulated by the 2010 Manila Amendments to the STCW Convention and Code.

The scope of the practical training enables the Cadet to:

- gain experience in relevant aspects of shipboard activities as they occur;
- test and compare the knowledge acquired on campus with the daily practice on board;
- consolidate and expand theoretical knowledge;
- build a practical basis to achieve the standards of competence that accord with the relevant requirements of STCW 2010, including with table A-II/1 of STCW 2010;
- build a practical basis to achieve the standards of competence in accordance with Regulation A-VIII/2 and the corresponding parts of the STCW Code relating to the principles to be observed in keeping a navigational and port watch;
- prepare for a future position on board.



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.3. Objectives

The Cadet will acquire basic seamanship skills and a practical awareness of the need to follow safe working practices and also be able to keep a navigational watch safely, in accordance with the relevant regulations and recommendations.

The objectives of the programme are to:

- direct the practical training so that the Cadet is guided as to the objectives of the practical training period;
- give guidance to the Master, Shipboard Training Officer and others regarding the tasks to be performed on board in order to achieve the desired competences;
- direct the Assessment Criteria so that the required training outcome can be reliably and fairly proved and documented.

1.4. Completion Guidelines

On receipt of this Book:

The trainee should complete the information required on the following pages including details of Basic Training received in accordance with the STCW Convention. The trainee will then be personally responsible for the safe keeping of this Book through out training. Section 3, concerning details of mandatory Safety Familiarization and mandatory Shipboard Familiarization, should be completed immediately after the trainee joins each ship. An officer should sign to signify that mandatory familiarization as required by the STCW Convention has been undertaken.

As soon as possible after joining each ship:

The trainee should complete Section 4 concerning the technical details of the vessel. The master and the designated training officer on board each ship should provide an opportunity for this exercise to be undertaken. The designated on board training officer appointed by the master should inspect this Book in order to check progress already made. A plan should be made to tackle the competences that still need to be demonstrated.

Through out the cadet's seagoing service:

Section 7, which contains a list of on board training tasks, should be progressively completed. Additional guidance on recording progress is given at the start of Section 6.

The Book should be submitted to the master for inspection every month and at the end of each voyage. The master's comments should be recorded, dated and stamped. Comments should only relate to the cadet's competence and practical progress.

The Book should be submitted to the designated on board training officer on joining each vessel — and then, as far as the voyage pattern allows, every week.

The Book should also be inspected by the shipping company. Comments should be recorded.

A precise record should be kept of the trainee's seagoing service including time spent on bridge watchkeeping duties.

In addition to practical training, throughout seagoing service cadets should practice their knowledge of the International Regulations for Preventing Collisions at Sea.

Cadets are also expected to complete a number of written projects.

Important note:

The STCW Convention requires that any person conducting on board training shall do so only when it will not adversely affect the normal operation of the ship and time can be dedicated to the training and any evaluation of competence.



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 2. SUMMARY RECORD OF PROGRESS

2.1. The main roles and responsibilities

Maritime Training Institution*	Company Training Officer	Master	Shipboard Training Officer	Cadet
Overall administration of the training programme including the pre-sea training period.	Overall administration of the structured shipboard training programme.	Provides the link between the Shipboard Training Officer and the Company Training Officer / Maritime Training Institution ashore.	Responsible for organizing the programme of practical training at sea.	Diligently follows the training programme.
Issues guidance as required and ensures that all concerned with the training programme play their parts.	Issues guidance as required and ensures that all concerned with the training programme play their parts.	Ensures that all concerned are effectively carrying out the training programme.	Ensures in a supervisory capacity, that the training programme is properly maintained and all requirements fulfilled. Ensures that the time the Cadet spends on board is as useful as possible in terms of training and experience, and activities are consistent with the objectives of the training programme, the progress of training and the ship's operational constraints. Uses the assessment criteria on the right hand side of the page and if satisfied that the Cadet can perform the tasks without supervision, signs and dates the "considered proficient" column.	Makes the most of the opportunities presented, within or outside working hours. Completes the tasks prescribed in the training programme to the best of ability, demonstrates the completion to the Shipboard Training Officer and obtains initialed approval.
Monitors the progress of the Cadet. Checks and comments on the appraisal report sent by the Shipboard Training Officer	Monitors the progress of the Cadet. Checks and comments on the appraisal report sent by the Shipboard Training Officer.	Inspects the training programme at monthly intervals and gives comments and suggestions for further improvement.	Inspects the training programme at monthly intervals and gives comments/suggestions for further improvement. Sends a quarterly appraisal report on the Cadet's performance.	Keeps the training programme updated and available for scrutiny at all times.

* In many administrations the pre-sea maritime training institution takes the responsibility of monitoring the SSTP Record Book and finally certifying that the entire training programme has been satisfactorily completed

2.2. Definitions and clarifications

For the purpose of the Training Record Book, unless expressly provided otherwise:

The term "**Shipboard Training Officer**" (STO) means a qualified seagoing officer who, under the authority of the master, should organize and supervise the program of training;

The term "**Company training officer**" (CSTO) means a person nominated by the company who should have an overall responsibility for the training program and for coordination with training organizations;

Company means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the company by these regulations



Deck Cadet Training Record Book

For Prospective 3rd Officer

2.3. Training programme

University / College / Training Centre		
	From:	To:
	From:	To:
	From:	To:
	From:	To:
Sea Training		
	From:	To:
	From:	To:
	From:	To:
	From:	To:

2.4. Shipboard record of services

Ship	IMO Number	Date		Time spent on bridge watch-keeping duties		Voyage total sea-going service	
		Signed on	Signed off	Months	Days	Months	Days
Total Time							

2.5. Company's Review of the Book

Comments should only relate to the Cadet's practical progress in training and competence.

Comments	Name	Designation	Signature	Date



Deck Cadet Training Record Book

For Prospective 3rd Officer

2.6. Maritime Training Institution's Review of the Book

Comments should only relate to the Cadet's practical progress in training and competence.

Name of the Company, ship	Number, date of order on practice assignment	Comments	Name and signature of Training Officer	Date

2.7. List of Video or Computer-based Training (CBT) Programme and Learning Management System (LMS) On-Line Training Modules Used

Date	Subject / Title of CBT	Officer's Signature



Deck Cadet Training Record Book

For Prospective 3rd Officer

PART 1

FIRST PRACTICE

Ship's Name _____

**The first part of the training is intended for cadets
who have completed the second year of education
at the institute**



Deck Cadet Training Record Book

For Prospective 3rd Officer

Shipboard Training Officer's Monthly Review of the Book

Comments should only relate to the Cadet's practical progress in training and competence.

№	Ship	Comments	STO Name	STO Signature and Stamp	Date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					



Deck Cadet Training Record Book

For Prospective 3rd Officer

Master's Monthly Review of the Book

Comments should only relate to Cadet's practical progress in training and competence.

No	Ship	Comments	Master's Name	Master's Signature and Stamp	Date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 3. MANDATORY SAFETY AND SHIPBOARD FAMILIARISATION

3.1. Basic Training as required by Section A-VI/1 paragraph 2 of the STCW Code

As part of your pre-sea training you should have completed Basic Training or instruction as listed. Enter details of this training or instruction below.

Course	Date	Name of Institution	Location	Certificate No.
Personal Survival Techniques				
Fire prevention and Fire fighting				
Elementary First Aid				
Personal Safety and Social Responsibilities				
Security Training: Security Awareness Training				
Certificate of Proficiency for Seafarers with Designated Security Duties				
Ship Security Officer				
Record of Other Professional Training				
Proficiency in Survival Craft & Rescue Boat				
Radar Observer Course				
Automatic Radar Plotting Aids				
Medical First Aid				
GMDSS General Operator's Certificate				
Oil and Chemical Tanker Familiarization				
Gas Tanker Familiarization				



Deck Cadet Training Record Book

For Prospective 3rd Officer

3.2. Shipboard Safety and Security Familiarization

In accordance with STCW 2010 Section A-VI/1 and Section A-VI/6, before being assigned to shipboard duties the Cadet is to receive safety and security familiarization in accordance with the Company's checklist.

Task / Duty	Officer's Signature /date
Safety and emergency procedures: Demonstrate recognition for the following alarm signals: General emergency alarm Fire alarm Abandon ship.	
Locate and don lifejacket and immersion suit.	
Locate and understand operation of fire-fighting equipment: alarm activation points, fire extinguishers, fire axes, fire hydrants, hoses and nozzles. Have basic knowledge of the use of portable fire extinguishers. Know location of fire wallet.	
Locate and understand operation of line throwing apparatus, distress rockets, flares and smoke signals.	
Locate and understand operation of SART, EPIRB and emergency VHF handheld radios.	
Locate and understand operation of breathing apparatus and fireman's outfit.	
Locate medical first aid equipment. Know location of keys for hospital and medical locker.	
Locate and understand operation of emergency deck stop mechanism for main engines, including other emergency stop valves.	
Locate CO2 room or any other fixed fire-fighting installation on board, and control valves for smothering apparatus in pump rooms, cargo tanks and holds.	
Locate and understand the operation of emergency fire pump.	
Understand safety symbols and signs.	
Safety and emergency procedures: if a person falls overboard if fire or smoke is detected upon hearing the general emergency alarm and/or fire alarm.	
Identify emergency muster stations, emergency headquarters (EHQ), lifeboat embarkation stations and emergency escape routes.	
Know the immediate actions to be taken upon encountering a medical emergency before seeking further medical assistance on board.	
Be able to operate (close/open) the fire, weather-tight doors and water-tight doors fitted on the ship, other than those for hull openings.	



Deck Cadet Training Record Book

For Prospective 3rd Officer

Read and demonstrate an understanding of the Company's Fire and Safety Regulations and be able to communicate with other persons on board on elementary safety matters.	
Watchkeeping procedures and arrangements Visit bridge, poop deck, forecandle, main deck and other work areas.	
Become acquainted with steering controls, telephones, telegraphs and other bridge equipment and displays.	
Environmental protection Understand the garbage handling, segregation and disposal procedures on board.	
Locate the garbage compactor or other such equipment as appropriate and understand its use.	
Security procedures Identify the restricted areas on board.	
Understand the security level on board.	
Identify the Ship Security Officer. Locate the contact details of the Company Security Officer.	
Know the procedures to follow when a security threat is recognized.	
Be able to report a security incident, including a piracy or armed robbery threat or attack.	
Be able to take part in security-related emergency and contingency procedures.	

Insert boat and fire muster stations and other details in the table below and request the Master to sign in the space provided

Lifeboat Muster Station	
Lifeboat Duties	
Emergency Muster Station	
Emergency Duties	
Oil Spill Duties	
Ship Safety Officer's Name/ Rank	
Ship Security Officer's Name/ Rank	
Master's Name	
Master's Signature	
Date	



Deck Cadet Training Record Book

For Prospective 3rd Officer

Insert boat and fire muster stations and other details in the table below and request the Master to sign in the space provided

Lifeboat Muster Station	
Lifeboat Duties	
Emergency Muster Station	
Emergency Duties	
Oil Spill Duties	
Ship Safety Officer's Name/ Rank	
Ship Security Officer's Name/ Rank	
Master's Name	
Master's Signature	
Date	



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 4. PARTICULARS OF SHIPS

It is an essential feature of your training that you obtain knowledge of the ships on which you serve. To assist you in meeting this important requirement the following particulars are to be recorded during the time spent on each ship. Questions on this subject, with particular reference to your last ship, are likely to be put to you during an oral examination and assessment for your certificate of competency.

General Particulars	Service speed:	Fixed fire-fighting system:
Ship's name:	Main engine output (kW at rev/min):	SCBA (no. & make):
Ship type:	Type of steering gear:	Cargo handling gear
IMO number:	Mooring ropes (number / diameter)	Derricks / Cranes (no. & SWL):
Call sign:	Natural fiber:	Winches (type):
Flag:	Synthetic fiber:	Other cargo equipment:
Length overall:	Wires:	
Breadth:	Towing springs:	
Depth:	Anchors (number of shackles / weight)	
Summer draft:	Port:	
Summer freeboard:	Starboard:	Ballast tanks (no. & capacity):
Gross tonnage:	Stern:	Cargo tanks (no. & capacity):
Net tonnage:	Spare:	Cargo pumps (no. & capacity):
Deadweight:	Cable (diameter):	
Light displacement:	Life saving equipment	
Fresh water allowance (FWA):	Lifeboat type (open / enclosed / free-fall):	Navigational & communication equipment (make and model)
Immersion at load draft (TPC):	Lifeboats (no.):	Radar / ARPA:



Deck Cadet Training Record Book

For Prospective 3rd Officer

Trimming moment (MCTC):	Liferafts (no.):	Log:
Bale capacity:	Lifeboat (dimensions):	GPS:
Grain capacity:	Lifeboat capacity (persons):	Magnetic compass:
Liquid capacity:	Liferaft capacity (persons):	Gyro compass:
Refrigerated capacity:	Lifeboat falls (diameter):	Echo sounder:
Container capacity (TEU):	Lifeboat davits (type):	Auto-pilot:
Fresh water capacity:	Lifebuoys (number):	VHF:
Daily fresh water generation:	Fire fighting equipment	MF / HF:
Daily fresh water consumption:	Fire extinguishers (no. & capacity):	SAT C:
Main engine particulars	Water:	ECDIS:
Engine (type):	Foam:	SART / EPIRB:
Boilers (type and number):	Dry powder:	Navtex:
Bunker capacity:	CO2:	AIS / LRIT:
Daily Consumption:	Fire hoses (no. & size):	VDR:



SECTION 5. INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA

When cadets are examined for certificates of competency they will be required to demonstrate a thorough knowledge of the Rules and their application.

Parts A, B, C, D and E. A thorough knowledge of the rules is required. When the cadet can demonstrate that each rule has been committed to memory and is also able to demonstrate a clear understanding of their use and application, the appropriate box should be initialed and dated by an officer.

Annex 1. An outline knowledge is required, however the provisions of Section 9 a should be fully understood.

Annexes II and III. A general knowledge of these annexes is required.

Annex IV. A full and comprehensive knowledge of distress signals is required.

Note: Whilst outline knowledge of each rule and the Annex is required, a thorough knowledge is required of the rules shaded in blue.

PART A General			PART B Steering and Sailing								
			Section 1			Section 2			Section 3		
Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date
1			4			11			19		
			5			12					
2			6			13					
			7			14					
3			8			15					
			9			16					
			10			17					
						18					

PART C Lights and Shapes			PART D Sound and Light Signals			PART E Exemptions					
Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date
20			26			32			38		
21			27			33					
22			28			34					
23			29			35					
24			30			36					
25			31			37					



Deck Cadet Training Record Book

For Prospective 3rd Officer

Annex I Details of Lights and Shapes Technical Details					
Rule	Signature	Date	Rule	Signature	Date
1			8		
2			9a		
3			9b		
4			10		
5			11		
6			12		
7			13		
			14		

Annex II Additional Signals for Fishing vessels			Annex III Details of Sound Signal Appliances		
Rule	Signature	Date	Rule	Signature	Date
All			All		

Annex IV Distress Signals		
Rule	Signature	Date
All		



SECTION 6. INFORMATION ON TRAINING TASKS AND COMPETENCES TO BE ACHIEVED

This section of your Record Book gives details of the training tasks that you should follow to make best use of your time at sea. You will see that each page lists the tasks or duties that you should undertake. Completion of these will lead to meeting the competences. A senior officer should review your progress and indicate, with initials and date in the blue box on the right hand side of the page, that your performance is considered to meet the Criteria for Evaluation and that competence has been demonstrated in that element. The officer may offer advice on areas in which improvement is necessary. The competences required by a watchkeeping officer as tabulated in the STCW Code are listed below. This Section is organized as follows:

COMPETENCES FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH (STCW CODETABLE AvII/1):

Navigation at the Operational Level

- Plan and conduct a passage and determine position;
- Maintain a safe navigational watch;
- Use of radar and ARPA to maintain safety of navigation;
- Use of ECDIS to maintain the safety of navigation;
- Respond to emergencies;
- Respond to a distress signal at sea;
- Use the IMO Standard Marine Communication Phrases and use English in written and oral form;
- Transmit and receive information by visual signaling;
- Manoeuvre the ship.

Cargo Handling and Stowage at the Operational Level

- Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes.

This Book covers extra tasks for cadets (not mentioned in STCW Code Table A-II/1) whose training at sea includes experience on tankers.

Cargo Handling and Stowage - Additional Tasks for Tankers

- Monitor loading of cargoes;
- Monitor discharging of cargoes;
- Maintain and overhaul cargo systems and associated equipment.

Controlling the Operation of the Ship and Care for Persons On Board at the Operational Level

- Ensure compliance with pollution-prevention requirements;
- Maintain seaworthiness of the ship;
- Prevent, control and fight fires on board;
- Operate life-saving appliances;
- Apply medical first aid on board ship;
- Monitor compliance with legislative requirements;
- Application of leadership and team working skills.

The competences for Ship Security are also included in this book based on STCW Table A-VI/6-1. This structured shipboard training programme includes an extra section for Cadets whose training at sea includes experience on tankers and liquefied gas carriers (if applicable). Reference is made to STCW 2010 Table A-V/1-1-1 (oil and chemical tankers) and STCW 2010 Table A-V/1-2-1 (liquefied gas tankers).

The designed tasks are directly relevant to the competences required by STCW 2010. The aim is for the Cadet to be “considered proficient” in all of these competences by the end of the cadetship period. All the competences designated are based on the practical tasks carried out on board.



Deck Cadet Training Record Book

For Prospective 3rd Officer

Each competence is sub-divided into a number of practical tasks. Theoretical aspects are covered during shore-based training.

When the cadet completes a task and can convincingly demonstrate his proficiency in the task, STO or designated officer can sign against that task.

The main functions (navigation, cargo handling and stowage, controlling the operation of the ship and care for persons on board) follow STCW guidelines (STCW 2010 Table A-II/1). The practical tasks for the competence “Application of leadership and team working skills” are addressed in other related competences in these three functions. The tasks for specialized vessels (oil and chemical tankers, gas tankers) are also included.

The policy applied for training on these specialized vessels is to address only the main competences applicable to the Cadet, tailored to suit the onboard training environment. The entire STCW competences related to security will be addressed in a shore-based security awareness course.

The Assessment method in this training programme is “on board assessment by the Shipboard Training Officer (STO)” and assessment tools are “practical demonstration”, and “oral questioning by STO”. The Activity Workbook, which is a supplement to this training programme, contains the “written assessments” for relevant tasks.

The tasks are divided into two parts based on the sea time requirements of the cadetship period. The intention is to complete all the tasks within the allocated part. However tasks meant for the next part of training can also be attempted / completed earlier based on the trading pattern of the vessel and suitable opportunities. The objective is to complete all the tasks in the structured shipboard training programme by the end of the cadetship period.



SECTION 7. TASKS FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH

The training in this section of this Record Book covers the requirements for the certification of officers in charge of a navigational watch.

The requirements for certification are as follows:

Regulation II/I Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more:

1. Every officer in charge of a navigational watch serving on a seagoing ship of 500 gross tonnage or more shall hold a certificate of competency;
2. Every candidate for certification shall:
 - Be not less than 18 years of age;
 - Have approved seagoing service of not less than 12 months as part of an approved training programme which includes onboard training that meets the requirements of section A-II/I of the STCW Code and is documented in an approved training record book, or otherwise have approved seagoing service of not less than 36 months;
 - Have performed, during the required seagoing service, bridge watchkeeping duties under the supervision of the master or a qualified officer for a period of not less than six months;
 - Meet the applicable requirements of the regulations in Chapter IV, as appropriate, for performing designated radio duties in accordance with the Radio Regulations;
 - Have completed approved education and training and meet the standard of competence specified in section A-II/I of the STCW Code; and
 - Meet the standard of competence specified in section A-VI/1, paragraph 2, section A-VI/2, paragraphs 1 to 4, section A-VI/3, paragraphs 1 to 4 and section A-VI/4, paragraphs 1 to 3 of the STCW Code.

Completion of the ISF Training Record Book for Deck Cadets should ensure a structured approach is undertaken so that trainees can make best use of their time at sea.

7.1. Function: Navigation - Celestial navigation

<i>Ref no.</i>	1	Competence: Plan and conduct a passage and determine position		
<i>Ref no.</i>	1.1	Topic: Celestial navigation	<i>Criteria for evaluating competence:</i> The Cadet is able to demonstrate the use of essential instruments and publications. The position as obtained by celestial observations is within acceptable accuracy, due regard being given to possible position line errors and meteorological conditions.	
Task number	Task to be performed		STO Sign	Date
1.1.1	Identify and correct sextant instrument errors. Obtain and apply index error.			
1.1.2	Obtain accurate bearings of sun, moon, stars and planets.			
1.1.3	Recognize conspicuous star constellations and stars of first magnitude. Practice use of star chart and star finder. Identify most suitable celestial bodies during twilight.			
1.1.4	Obtain accurate readings of sextant altitudes of celestial bodies.			
1.1.5	Calculate the time of meridian altitude of the sun.			
1.1.6	Calculate latitude by Polaris or by meridian altitude of the sun.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.1.7	Practice celestial observations (sights) using the sextant and obtain position lines and positions.		
1.1.8	Plot three position lines and obtain ship's position.		
1.1.9	Calculate times of sunset, sunrise and twilight using the Nautical Almanac.		

7.2. Function: Navigation - Terrestrial and coastal navigation

Ref no.	1.2	Topic: Terrestrial and coastal navigation	Assessment Criteria: The primary method of fixing the ship's position is the most appropriate in the prevailing circumstances and conditions. The position is determined within the limits of acceptable instrument/system errors. Calculations and measurements of navigational information are accurate. The Cadet is able to demonstrate sufficient knowledge of the IALA Maritime Buoyage System.
Task number	Task to be performed		STO Sign
1.2.1	Recognize various landmarks and aids to navigation, including lighthouses, beacons, buoys and topographical features.		
1.2.2	Demonstrate understanding of identifying characteristics of lights and of the 'rising' and 'dipping' of lights and compare the observed and charted characteristics of lights.		
1.2.3	Take accurate bearings of a point of land, a lighthouse or a beacon (identified on the chart).		
1.2.4	Determine the ship's dead reckoning position and estimated position, taking into account winds, tides, currents and estimated speed.		
1.2.5	Demonstrate understanding of the IALA Maritime Buoyage System for Region A and Region B including the emergency wreck marking buoy.		
1.2.6	Practice position fixing using three simultaneous observations, with various combinations of visual bearings, radar bearings and radar ranges of conspicuous objects.		

7.3. Function: Navigation - Charts and publications

Ref no.	1.3	Topic: Charts and publications	Criteria for evaluating competence: The information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied. All potential navigational hazards are accurately identified.
Task number	Task to be performed		STO Sign
1.3.1	Demonstrate familiarity with the chart folio system.		
1.3.2	Demonstrate understanding of the use of BA Chart 5011 (Symbols and Abbreviations used on Admiralty Paper Charts) and identify various chart symbols; e.g. buoys, marks, wrecks, obstructions, shallow depths, reefs and other dangers to navigation. Correctly interpret information obtained from charts and publications.		
1.3.3	Make inventory of publications available on bridge.		
1.3.4	Demonstrate understanding of the contents and use of relevant BA publications, including:		



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.3.4.1	Weekly, Cumulative and Annual Notices to Mariners		
1.3.4.2	Mariner's Handbook (NP 100)		
1.3.4.3	Catalogue of Admiralty Charts and Publications (NP 131)		
1.3.4.4	Sailing Directions		
1.3.4.5	Ship's Routing Information		
1.3.4.6	Ocean Passages for the World		
1.3.4.7	List of Lights and Fog Signals (including Digital list of lights)		
1.3.4.8	Tide Tables, Tidal Stream Atlases		
1.3.4.9	Admiralty List of Radio Signals		
1.3.4.10	Routing charts.		
1.3.5	Demonstrate understanding of the procedures for correction of charts as explained in the publication "How to keep your Admiralty charts up to date" (NP 294).		
1.3.6	Record chart corrections using BA NP 133A or appropriate digital method.		
1.3.7	Identify the instruments required for chart correction and chart work.		
1.3.8	Assist correction of charts using Notices to Mariners in paper or digital format and chart tracings.		
1.3.9	Assist checking of new charts received.		
1.3.10	Assist correction of Admiralty Sailing Directions.		
1.3.11	Assist correction of Admiralty List of Radio Signals.		
1.3.12	Assist correction of Admiralty List of Lights and Fog Signals.		
1.3.13	Assist correction of voyage charts for T & P notices and navigational warnings.		
1.3.14	Identify the publication containing information on approved traffic separation schemes.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.4. Function: Navigation - Passage planning

Ref no.	1.4	Topic: Passage planning	<p><i>Criteria for evaluating competence:</i></p> <p><i>The charts selected are the largest scale suitable for the area of navigation and charts and publications are corrected in accordance with the latest information available.</i></p> <p><i>The courses are suitably set in respect of the ship's size, draft and maneuver ability, with sufficient distance off shallow waters, banks and other dangers to navigation.</i></p> <p><i>Due consideration is given to current, ice, prevailing meteorological conditions, routeing and traffic separation schemes.</i></p>	
Task number		Task to be performed	STO Sign	Date
1.4.1		Assist selection of charts and publications for an intended voyage.		

7.5. Function: Navigation - Electronic systems of position fixing and navigation

Ref no.	1.5	Topic: Electronic systems of position fixing and navigation	<p><i>Criteria for evaluating competence: Performance checks and tests to navigation systems comply with manufacturer's recommendations and good navigational practice. The Cadet is able to demonstrate the operation of the equipment correctly.</i></p>	
Task number		Task to be performed	STO Sign	Date
1.5.1		Use GPS fix to plot vessel's position, after applying applicable datum errors.		
1.5.2		Demonstrate understanding of the principle and use of DGPS.		

7.6. Function: Navigation – Equipment - Echo sounders

Ref no.	1.6	Topic: Echo sounders	<p><i>Criteria for evaluating competence:</i></p> <p><i>The Cadet is able to demonstrate the operation of the echo sounder and correctly apply the information.</i></p>	
Task number		Task to be performed	STO Sign	Date
1.6.1		Assist in record keeping with respect to the echo sounder and markings on the recorder.		
1.6.2		Locate the spares of echo sounder equipment. Demonstrate understanding of the maintenance requirements, including changing of recorder stylus and belt (if applicable).		



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.7. Function: Navigation – Equipment - Compass - Magnetic and gyro

Ref no.	1.7	Topic: Compass - Magnetic and gyro	<i>Criteria for evaluating competence:</i> <i>Errors in magnetic and gyro compasses are determined and correctly applied to courses and bearings. The Cadet is able to make entries in the compass error book.</i>	
Task number	Task to be performed		STO Sign	Date
1.7.1	Apply magnetic variation and deviation to magnetic compass readings.			
1.7.2	Demonstrate the use of deviation card when using magnetic compass readings.			
1.7.3	Use the compass error book, make entries under supervision and compare the deviation obtained with the deviation card readings.			

7.8. Function: Navigation – Equipment - Steering control systems

Ref no.	1.8	Topic: Steering control systems	<i>Criteria for evaluating competence:</i> <i>The selection of the mode of steering is the most suitable for the prevailing weather, sea and traffic conditions and intended maneuvers. The Cadet is able to use various modes of steering.</i>	
Task number	Task to be performed		STO Sign	Date
1.8.1	Perform change-over from manual to automatic steering and vice versa under supervision. Test the system on all modes available, including NFU mode.			
1.8.2	Adjust various controls available in the steering control system for optimum performance.			
1.8.3	Identify various alarms associated with the steering control system. Demonstrate setting and testing of "off course" alarm under supervision.			
1.8.4	Demonstrate understanding of the procedures for the change over for autopilot from gyro compass to transmitting magnetic heading device if fitted.			
1.8.5	Demonstrate understanding of the procedures for the change over for emergency steering. Steer from local control.			

7.9. Function: Navigation – Meteorology

Ref no.	1.9	Topic: Meteorology	<i>Criteria for evaluating competence:</i> <i>Measurements and observations of weather conditions are accurate and appropriate to the passage. Meteorological information is correctly interpreted and applied.</i>	
Task number	Task to be performed		STO Sign	Date
1.9.1	Read barometer accurately and obtain corrected barometric pressure.			
1.9.2	Read barograph if fitted and obtain the barometric tendency.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.9.3	Obtain and record sea and air temperatures.		
1.9.4	Estimate wind direction (by wave observation) and wind force using sea state (Beaufort scale).		
1.9.5	Estimate swell direction and wave height.		
1.9.6	Recognize main cloud types.		
1.9.7	Assist in observing, recording and sending weather observations.		

7.10. Function: Navigation – Watchkeeping

Ref no.	2	Competence: Maintain a safe navigational watch		
Ref no.	2.1	Topic: Watchkeeping	Criteria for evaluating competence:	
			<p><i>The conduct, handover and relief of the watch conform to accepted principles and procedures.</i></p> <p><i>A proper look-out is maintained at all times and in such a way as to conform to accepted principles and procedures.</i></p> <p><i>The frequency and extent of monitoring of traffic, the ship and the environment conform with accepted principles and procedures.</i></p> <p><i>The Cadet is able to demonstrate procedures for maintaining a safe navigational watch.</i></p>	
Task number		Task to be performed	STO Sign	Date
2.1.1		Read and discuss with a senior officer "Watch keeping arrangements and principles to be observed" concerning navigation watch at sea and anchor as stated in STCW 2010.		
2.1.2		Keep a proper look-out by day and night. Report objects correctly and assess and determine risk of collision.		
2.1.3		Read Master's standing and bridge orders. Identify the circumstances for when to call the Master.		
2.1.4		Demonstrate understanding of procedure for handing over and taking over a bridge watch and the principles of safe watchkeeping and bridge manning levels.		
2.1.5		Assist watchkeeping officer in keeping a safe navigational watch at sea.		
2.1.6		Assist watchkeeping officer in keeping an anchor watch.		
2.1.7		Supervise ratings in watchkeeping duties.		
2.1.8		Understudy an officer on the bridge during coastal navigation and during navigation under pilotage, including berthing and unberthing.		
2.1.9		Demonstrate understanding of procedures for navigating in restricted visibility.		
2.1.10		Demonstrate understanding of the instructions provided in the deck log book and procedures for making and correcting entries. Under supervision, make an entry in the deck log book for a navigational watch.		
2.1.11		Under supervision, make entries in the bridge movement book.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.11. Function: Navigation – Navigational equipment

Ref no.	2.2	Topic: Navigational equipment	<i>Criteria for evaluating competence: The Cadet is able to demonstrate the use of all information from navigational equipment for maintaining a safe navigational watch.</i>	
Task number	Task to be performed		STO Sign	Date
2.2.1	Receive full bridge familiarization as per company's Safety Management System checklist from a navigating officer.			
2.2.2	Assist in renewal of recording paper of various equipment; i.e. course and rudder position indicator recorder, echo sounder, telegraph order printer, Navtex, weather fax, GMDSS printers, etc.			
2.2.3	Locate and identify all the navigational and emergency equipment being supplied by the emergency switchboard for safe navigation.			
2.2.4	Locate the alarms units for Bridge Navigational Watch Alarm System (where fitted).			
2.2.5	Locate the sound reception system and external microphones (if fitted).			

7.12. Function: Ship reporting systems

Ref no.	2.3	Topic: Ship reporting systems	<i>Criteria for evaluating competence: Reporting is in accordance with the General Principles for Ship Reporting Systems and with VTS procedures.</i>	
Task number	Task to be performed		STO Sign	Date
2.3.1	Assist duty officer in preparing and sending AMVER reports.			
2.3.2	Assist watchkeeping officer in making various reports pertaining to ship reporting systems, as per their prescribed formats given in the publications and assist in sending such reports.			
2.3.3	Identify Vessel Traffic Information System reporting points on the chart			

7.13. Function: Bridge resource management

Ref no.	2.4	Topic: Bridge resource management	<i>Criteria for evaluating competence: Communication is clearly and unambiguously given and received. The Cadet is able to demonstrate accurate understanding of current and predicted vessel state, navigation path and external environment. Effective leadership behaviors are identified</i>	
Task number	Task to be performed		STO Sign	Date
2.4.1	Attend bridge team meetings.			
2.4.2	Demonstrate understanding of the concept of challenge and response during questionable decisions and/or actions on the bridge.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.14. Function: Use of radar and ARPA to maintain safety of navigation

Ref no.	3	Competence: Use of radar and ARPA to maintain safety of navigation		
Ref no.	3.1	Competence: Use of radar and ARPA to maintain safety of navigation	Criteria for evaluating competence: Information obtained from radar and ARPA is correctly interpreted and analyzed, taking into account the limitations of the equipment and prevailing circumstances and conditions.	
Task number	Task to be performed		STO Sign	Date
3.1.1	Practice radar set-up procedure and carry out system tests.			
3.1.2	Identify conspicuous land marks on a radar picture.			
3.1.3	Plot fixes by radar using radar arranges and bearings. Check the accuracy of radar fixes with visual fixes.			
3.1.4	Perform optimum settings of anti sea and rain clutter controls.			
3.1.6	Practice comparing and correlating the actual visual scenario with the radar picture.			
3.1.7	Demonstrate understanding of the limitations of the radar and ARPA and be aware of the possibility of misinterpretation of information, false echoes, sea returns, reliance on scanty data / information, etc.			
3.1.8	Use radar performance monitors and analyze results by comparing them with the original readings.			

7.15. Function: Using radar/ ARPA for collision avoidance

Ref no.	3.2	Topic: Using radar/ ARPA for collision avoidance	Criteria for evaluating competence: <i>Action taken to avoid close encounters or collisions with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972</i>	
Task number	Task to be performed		STO Sign	Date
3.2.1	Demonstrate ability to determine range, bearing, course, speed, CPA and TCPA of targets.			
3.2.2	Demonstrate ability to identify and track small boats.			
3.2.3	Practice parallel indexing techniques.			
3.2.4	Demonstrate understanding of correct setting of CPA / TCPA alarms with respect to area of navigation.			
3.2.5	Carry out long range scanning by changing radar scales at regular intervals.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.16. Function: Use of ECDIS

Ref no.	4	Competence: Use of ECDIS to maintain the safety of navigation		
Ref no.	4.1	Topic: Use of ECDIS	Criteria for evaluating competence: <i>Information obtained from ECDIS (including radar overlay and/or radar tracking functions, when fitted) is correctly interpreted and analyzed, taking into account the limitations of the equipment, all connected sensors (including radar and AIS where interfaced), and prevailing circumstances and conditions.</i>	
Task number	Task to be performed		STO Sign	Date
4.1.1	Assist watchkeeper in correcting / updating electronic charts – manual, semi-automatic and automatic methods.			
4.1.2	Demonstrate understanding of the limitations of ECDIS and dangers of over reliance.			
4.1.3	Plan and monitor a route using ECDIS.			
4.1.4	Demonstrate understanding of the optimum ECDIS settings and use of various alarms and indicators; e.g. watch vector, safety contour, cross track, arrival WPT, anchor watch settings.			
4.1.5	Demonstrate understanding of setting of safety depth/spot soundings.			

7.17. Function: Emergencies at sea

Ref no.	5	Competence: Respond to Emergencies		
Ref no.	5.1	Topic: Emergencies at sea	Criteria for evaluating competence: <i>The type and scale of the emergency at sea are promptly identified. Initial actions are in accordance with the contingency plans and are appropriate to the urgency of the situation and nature of the emergency. Ability to take actions in an emergency at sea is demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
5.1.1	Understudy team leaders during emergency response exercises; e.g.:			
5.1.1.1	Heavy weather damage			
5.1.1.2	Collision			
5.1.1.3	Grounding			
5.1.1.4	Flooding			
5.1.1.5	Rescue of survivors / assisting a ship in distress			
5.1.1.6	Shipboard oil pollution incident at sea			
5.1.1.7	Gyro failure			
5.1.1.8	Steering failure			
5.1.1.9	Main engine/ power failure			
5.1.1.10	Security incident / drill at sea.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.18. Function: Emergencies in port

Ref no.	5.2	Topic: Emergencies in port	<i>Criteria for evaluating competence: The type and scale of the emergency in port are promptly identified. Initial actions are in accordance with the contingency plans and are appropriate to the urgency of the situation and nature of the emergency. Ability to take actions in an emergency in port is demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
5.2.1	Understudy the team leaders and participate in an emergency response exercise for a pollution incident in port.			
5.2.2	Understudy the team leaders and participate in an emergency response exercise for a security incident in port.			
5.2.3	Understudy the team leaders and participate in an emergency response exercise for a fire in the cargo area while in port.			
5.2.4	Demonstrate understanding of the contents of vessel's Shipboard Oil Pollution Emergency Plan (SOPEP).			
5.2.5	Demonstrate understanding of the procedure for alerting port emergency services.			

7.19. Function: Distress signals

Ref no.	6	Competence: Respond to a distress signal at sea		
Ref no.	6.1	Topic: Distress signals	<i>Criteria for evaluating competence: The distress signals are immediately recognized. Contingency plans and instructions in standing orders are implemented and complied with.</i>	
Task number	Task to be performed		STO Sign	Date
6.1.1	Read and discuss with a navigating officer the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volume III.			
6.1.2	Understudy the designated distress communication officer with regards to his duties and responsibilities			
6.1.3	Assist watch keeping officer in carrying out required daily, weekly and monthly checks and testing of GMDSS equipment.			
6.1.4	Make entries in the GMDSS log book under supervision.			
6.1.5	Record the communications, information and actions, including routine equipment checks, in the GMDSS logbook.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.20. Function: IMO Standard Marine Communication Phrases

Ref no.	7	Competence: Use the IMO Standard Marine Communication Phrases and use English in written and oral form		
Ref no.	7.1	Topic: IMO Standard Marine Communication Phrases	Criteria for evaluating competence: <i>Communications are clear and understood</i>	
Task number	Task to be performed		STO Sign	Date
7.1.1	Communicate with other ships, coast stations and VTIS using the SMCP (IMO's Standard Marine Communication Phrases) ensuring that communications are clear and understood.			

7.21. Function: Use of English in written and oral form

Ref no.	7.2	Topic: Use of English in written and oral form	Criteria for evaluating competence: <i>English language nautical publications and messages relevant to the safety of the ship are correctly interpreted or drafted.</i>	
Task number	Task to be performed		STO Sign	Date
7.2.1	Use hand held transceivers (walkie-talkies) and communicate in English			
7.2.2	Communicate clearly in English during drills and exercises			
7.2.3	Make log book entries in English. Demonstrate understanding of the content and use of nautical publications such as Sailing Directions / Mariner's Hand Book / Ocean Passages for the World.			
7.2.4	Communicate in English with a multi-lingual crew.			
7.2.5	Supervise ratings and communicate with the bridge in English during anchoring, mooring and unmooring. operations			

7.22. Function: Transmit and receive information by visual signaling

Ref no.	8	Competence: Transmit and receive information by visual signaling		
Ref no.	8.1	Topic: Communications-Morse light signaling	Criteria for evaluating competence: <i>Morse light signaling is correctly identified and understood.</i>	
Task number	Task to be performed		STO Sign	Date
8.1.1	Transmit and receive the distress signal (SOS) by Morse light.			
8.1.2	Visually signal International Code of Signals single letters			
8.1.3	Use and maintain the daylight signaling lamp and its battery.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.23. Function: Communications - Signaling by flags

Ref no.	8.2	Topic: Communications - Signaling by flags	<i>Criteria for evaluating competence: International Code of Signal flags are correctly identified and meaning of single letter flag hoists understood. Correct Flags are displayed.</i>	
Task number	Task to be performed		STO Sign	Date
8.2.1	Identify International Code of Signals flags and principal national flags.			
8.2.2	Recognize the meaning of single letter flag hoists.			
8.2.3	Code and decode using the International Code of Signals.			
8.2.4	Demonstrate understanding of flag etiquette			

7.24. Function: Maneuvering information

Ref no.	9	Competence: Manoeuvre the ship		
Ref no.	9.1	Topic: Maneuvering information	<i>Criteria for evaluating competence: The manoeuvring characteristics are correctly interpreted and understood.</i>	
Task number	Task to be performed		STO Sign	Date
9.1.1	Locate the maneuvering information on board.			
9.1.2	Obtain the stopping distances and turning circle parameters from the maneuvering information.			
9.1.3	Demonstrate understanding of squat, shallow water and similar effects. Calculate squat for a coastal passage at full speed (open and confined channel).			

7.25. Function: Anchoring and mooring procedures

Ref no.	9.2	Topic: Anchoring and mooring procedures	<i>Criteria for evaluating competence: Correct anchoring and mooring procedures are known and demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
9.2.1	Assist in preparation for mooring stations.			
9.2.2	Accompany an officer on deck for mooring and unmooring operations including securing and letting go tugs.			
9.2.3	Throw heaving line ashore.			
9.2.4	Demonstrate understanding of various types of mooring ropes.			
9.2.5	Demonstrate understanding of the markings on anchor cable.			
9.2.6	Operate mooring winches and windlass under supervision. Check brake lining and brake adjustment bolt clearance			
9.2.7	Use rope and chain stoppers under supervision and demonstrate the procedure for turning up mooring lines.			
9.2.8	Demonstrate safe handling of moorings, with reference to snap back zones, minimum turns on the winch drum, lead from the			



Deck Cadet Training Record Book

For Prospective 3rd Officer

	warping drum to the fairlead and precautions when using self-tensioning winches.		
9.2.9	Assist the crew with removing anchor lashings and other anchor related tasks, including:		
9.2.9.1	Preparation of anchors and letting go		
9.2.9.2	Walking back anchor in a controlled manner (deep water anchoring)		
9.2.9.3	Weighing of anchor, inspecting for damage and fouling.		
9.2.10	Accompany an officer on deck for anchoring operation. Recognize the significance and method of reporting to bridge the lead of the anchor chain.		
9.2.11	Use bow stopper and anchor brakes as directed by officer in charge during anchor stations.		
9.2.12	Assist with securing of anchors for sea. Recognize the importance of three point contact at the securing position.		
9.2.13	Demonstrate understanding of the procedure for releasing the bitter end of anchor chains.		
9.2.14	Assist inspection of chain locker		
9.2.15	Assist stowage of ropes after mooring operations.		
9.2.16	Place rat guards on mooring ropes after berthing and understand importance of securing rat guards.		
9.2.17	Demonstrate understanding of the precautions required for hydraulic mooring systems.		
9.2.18	Identify the points where tugs usually make fast.		

7.26. Function: Man overboard

Ref no.	9.3	Topic: Man overboard	<i>Criteria for evaluating competence: Maneuvers and procedures for the rescue of person overboard are clear and understood.</i>	
Task number	Task to be performed		STO Sign	Date
9.3.1	Take part in a man overboard drill.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 8. CARGO HANDLING AND STOWAGE FOR TANKERS

8.1. Function: Cargo operations (Oil Tankers) - loading and discharging

Ref no.	10	Competence: Contribute to safe cargo operations		
Ref no.	10.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence:</i> <i>Cargo operations with Cadet involvement are carried out in accordance with accepted principles and procedures to ensure safety of operations.</i>	
Task number	Task to be performed		STO Sign	Date
10.1.1	Demonstrate understanding of the working of fixed deck foam system.			
10.1.2	Demonstrate understanding of the meaning of letters 'A', 'P' & R in the 'Code' column of the Ship/Shore Safety Check List.			
10.1.3	Demonstrate understanding of "surge pressure" and the action required to avoid generation of surge pressure.			
10.1.4	Check closing timing of manifold valves and describe how the timing is adjusted			
10.1.5	Demonstrate basic knowledge of closed cargo operations			
10.1.6	Understudy a deck officer in supervising deck and cargo control room checks			
10.1.7	Assist the watchkeeper in supervising loading and discharging operations, including:			
10.1.8	Make rounds on deck and confirm no leakages.			
10.1.9	Assist with topping-off tanks.			
10.1.10	Keep a record of loading and de-ballasting operations, and of discharging and ballasting operations.			
10.1.11	Assist with checking proper functioning of venting system, pressure-vacuum valves, hi-velocity vents.			
10.1.12	Monitor return lines (heating) for leakage.			
10.1.13	Assist with the operation of inert gas plant and monitor:			
10.1.13.1	Oxygen content in tanks and in the line			
10.1.13.2	Tank pressure			
10.1.13.3	IG line set-up			
10.1.13.4	Various alarms and trips.			
10.1.14	Monitor and record pressures in the cargo line, inert gas line and individual tanks.			
10.1.15	Demonstrate understanding of the dangers of water hammer in steam lines.			
10.1.16	Monitor cargo temperatures in individual cargo tanks and maintain temperature log.			
10.1.17	Assist with overhauling of steam traps on heating lines.			
10.1.18	Monitor tank levels, IG pressures and oxygen content daily and maintain relevant logs during voyage			
10.1.19	Carry out daily cargo related checks during voyage.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.2. Function: Cargo operations (Oil Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures.

Ref no	10.2	Topic: Cargo operations - washing of tanks, preparation for next cargo and tank inspection procedures.	<i>Criteria for evaluating competence:</i> <i>Safe working practices are observed and explained and appropriate safety and protective equipment is correctly used. Procedures for entry into enclosed spaces are observed and explained.</i>	
Task number	Task to be performed		STO Sign	Date
10.2.1	Comply with safety check list(s) prior to tank cleaning.			
10.2.2	Monitor atmosphere of tank being cleaned.			
10.2.3	Check continuity of tank cleaning hoses, if used.			
10.2.4	Demonstrate understanding of the precautions to be taken when washing in uncontrolled atmosphere after discharging flammable cargoes.			
10.2.5	Demonstrate understanding of the use of tank cleaning heater and its controls for temperature setting, etc.			
10.2.6	Assist preparation of a tank for man-entry, including:			
10.2.6.1	Purging			
10.2.6.2	Inerting			
10.2.6.3	Gas-freeing			
10.2.6.4	Enclosed entry procedure.			
10.2.5	Assist the chief officer in preparation and completion of the documentation required for man-entry into a cargotank.			
10.2.6	Assist in maintenance, use, operational testing and calibration of portable instruments for monitoring tank atmosphere: i.e			
10.2.6.1	Oxygen analyzers			
10.2.6.2	Explosimeters			
10.2.6.3	Vol % HC analyzers			
10.2.6.4	Multi gas detectors			
10.2.6.5	Personal gas detectors			
10.2.6.6	Toxic gas detectors, including chemical tubes.			
10.2.7	Identify the difference between calibration and operational testing of gas measuring instruments.			
10.2.8	Keeps a record of tank cleaning operation.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.3. Function: Cargo operations (Oil Tankers) – inspection/testing of cargo related equipment

Ref no	10.3	Topic: Cargo operations – inspection/testing of cargo related equipment	<i>Criteria for evaluating competence: Operations and inspections are conducted in accordance with accepted principles and manufacturer's instructions.</i>	
Task number	Task to be performed		STO Sign	Date
10.3.1	Assist with overhaul of:			
10.3.1.1	Pressure-vacuum valve / hi-velocity vent			
10.3.1.2	Portable tank washing machine			
10.3.1.3	Gas freeing fans			
10.3.1.4	Fixed tank washing machines, including programmable units where provided			
10.3.1.5	Air hoist units.			
10.3.1.6	Eductors and non-return valves			
10.3.1.7	Actuators and valves			
10.3.2	Assist with routine maintenance of:			
10.3.2.1	Valve glands			
10.3.2.2	Pump strainers			
10.3.2.3	Tank lids			
10.3.3	Identify and demonstrate understanding of the working principle, characteristics of main types of pumps used on tankers, including:			
10.3.3.1	Centrifugal			
10.3.3.2	Stripping			
10.3.3.3	Vacuum			
10.3.3.4	Eductors			
10.3.4	Test portable winches, portable pumps and eductors.			

8.4. Function: Cargo operations (Oil Tankers) - Contribute to the safe cargo operations

Ref no	11	Competence: Contribute to the safe cargo operations.		
Ref no	11.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence: Cargo operations are carried out in accordance with accepted principles and procedures to ensure safety of operations. Cadet demonstrates basic knowledge of the physical properties of oil.</i>	
Task number	Task to be performed		STO Sign	Date
11.1.1	Read and discuss the contents of International Chamber of Shipping (ICS) Safety in Oil Tankers booklet with a senior officer.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.1.2	Demonstrate understanding of the contents of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).		
11.1.3	Demonstrate understanding of the basic properties of petroleum, namely vapor pressure and flammability.		
11.1.4	Interpret the flammability diagram and demonstrate understanding of the terms "flammability limits", "lower explosion limit" and "upper explosion limit"		
11.1.5	Demonstrate understanding of the effect of inert gas in lowering of the flammable envelope.		
11.1.6	Recognize the main hazards of petroleum, namely flammability, toxicity and pollution.		
11.1.7	Recognize the hazards associated with the handling and carriage of petroleum goods in bulk.		
11.1.8	Demonstrate understanding of the term "sour crude" and associated hazards.		
11.1.9	Assist with carrying out pre-arrival checks; including:		
11.1.9.1	Setting cargo lines prior to loading and discharging.		
11.1.9.2	Setting de-ballasting and ballasting lines.		
11.1.10	Assist with connecting ship's manifold to loading arms and flexible hoses and connecting reducers, where necessary.		
11.1.11	Interpret a centrifugal pump performance curve.		
11.1.12	Locate the MSDS of the cargo(s) onboard, study the contents and identify the following:		
11.1.12.1	Cargo properties		
11.1.12.2	Cargo hazards		
11.1.12.3	Emergency procedures		
11.1.13	Demonstrate understanding of pump room entry procedures and the importance of keeping in contact with the cargo control room during pump room entry.		
11.1.14	Assist with collection of cargo samples.		
11.1.15	Assist with disconnecting ship's manifold with loading arms/flexible hoses and its blanking off.		
11.1.16	Assist with draining and cleaning of the manifold drip tray after disconnection of cargo arms / hoses.		
11.1.17	Demonstrate use of portable cargo measurement devices		
11.1.18	Assist in compliance with various crude oil washing checklists and carryout the following tasks:		
11.1.18.1	Monitoring oxygen level in tanks and in inert gas (IG) line		
11.1.18.2	Setting up lines for crude oil washing (COW)		
11.1.18.3	Monitoring COW line pressure		
11.1.18.4	Confirming COW cycles of the machines		
11.1.18.5	Reading and following a COW plan / bar chart in conjunction with the discharge plan		
11.1.18.6	Ensuring safeguards for avoiding hazards due to static discharges		
11.1.18.7	Draining cargo pumps and lines and pumping through small diameter line		
11.1.19	Assist with draining and eduction of tanks.		
11.1.20	Assist with the setting up of steam lines for cargo heating.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.5. Function: Cargo operations (Oil Tankers) - water washing of tanks and tank inspection procedures

Ref no	11.2	Topic: Cargo operations - water washing of tanks and tank inspection procedures	<i>Criteria for evaluating competence:</i> <i>Safe working practices are observed and appropriate safety and protective equipment is correctly used. Procedures for entry into enclosed spaces are observed</i>	
Task number	Task to be performed		STO Sign	Date
11.2.1	Assist in carrying out tank cleaning (water washing).			
11.2.2	Accompany Chief Officer into a cargo tank for inspection.			
11.2.3	Assist in preparing tank inspection report.			
11.2.4	Assist in tank cleaning and other procedures required for changing grades from dirty to clean oil on product tankers.			

8.6. Function: Cargo operations (Oil Tankers) – inspection of cargo pumps and equipment

Ref no	11.3	Topic: Cargo operations – inspection of cargo pumps and equipment	<i>Criteria for evaluating competence:</i> <i>Operations and inspections are conducted in accordance with accepted principles and manufacturer's instructions.</i>	
Task number	Task to be performed		STO Sign	Date
11.3.1	Assist with maintenance and calibration (where applicable) of the following equipment:			
11.3.1.1	Interface detectors			
11.3.1.2	Ullage gauging system			
11.3.1.3	Oil discharge monitoring and control system.			
11.3.2	Demonstrate understanding of PV seal unit and top up liquid if required.			

8.7. Function: Cargo operations (Chemical Tankers) - loading and discharging

Ref no	12	Competence: Contribute to safe cargo operations		
Ref no	12.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence:</i> <i>Cargo operations with Cadet involvement are carried out in accordance with accepted principles and procedures to ensure safety of operations. Cadet can demonstrate basic knowledge of the basic properties of noxious liquids substances.</i>	
Task number	Task to be performed		STO Sign	Date
12.1.1	Read and discuss the contents of ICS Safety Guide for Chemical Tankers booklet with a senior officer. Refer to this booklet and obtain the safety data sheet for the cargoes being carried on board.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.1.2	Demonstrate understanding of the contents of the International Safety Guide for Oil Tankers and Terminals(ISGOTT).		
12.1.3	Read and discuss the contents of ICS Tanker Safety Guide (Chemicals) and International Bulk Chemical (IBC) Code with a senior officer.		
12.1.4	Identify cargo specific fire fighting medium that would be most effective fire fighting agent (cargo being carried).		
12.1.5	Demonstrate understanding of the basic properties of noxious liquid substances, namely flammable, corrosive, explosive, toxic, reactive, etc.		
12.1.6	Interpret the flammability diagram and demonstrate understanding of the terms "flammability limits", "lower explosion limit" and "upper explosion limit".		
12.1.7	Demonstrate understanding of the effect of inert gas in lowering of the flammable envelope.		
12.1.8	Obtain information and explain the properties and hazards of the chemical cargoes being carried on board.		
12.1.9	Refer to Medical First Aid Guide (MFAG) for treatment following exposure to chemical cargoes and demonstrate understanding of the use of antidotes.		
12.1.10	Demonstrate understanding of the action to be taken in case of a chemical spill (cargo being carried) and take part in chemical spill drill.		
12.1.11	Locate the Procedure and Arrangement manual of the ship		
12.1.12	Demonstrate knowledge of pipeline layout, systems, cargo pump operations and layout and operation of cargo valves.		
12.1.13	Identify the expansion bellows / couplings fitted on the cargo system pipe work.		
12.1.14	Assist with carrying out pre-arrival checks; including		
12.1.14.1	Setting cargo lines prior to loading and discharging		
12.1.14.2	Setting de-ballasting and ballasting lines		
12.1.15	Demonstrate understanding of the contents of Marpol Annex II and category X, Y, Z and OS cargoes.		
12.1.16	Interpret a centrifugal pump performance curve.		
12.1.17	Locate the MSDS of the cargo(s) onboard, study the contents and identify the following		
12.1.17.1	Cargo properties		
12.1.17.2	Cargo hazards		
12.1.17.3	Emergency procedures		
12.1.18	Assist with collection of cargo samples.		
12.1.19	Assist with connecting/ disconnecting ship's manifold to loading arms and flexible hoses and connecting reducers, where necessary.		
12.1.20	Assist with disconnecting ship's manifold with loading arms / flexible hoses and its blanking off		
12.1.21	Assist with draining and clearing of the manifold drip tray after disconnection of cargo arms / hoses.		
12.1.22	Demonstrate understanding of the operation of cargo tank high level alarm system and the overflow control system.		
12.1.23	Accompany the shore representative/surveyor for initial gauging and sampling		
12.1.24	Assist with draining and final stripping of tanks		



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.8. Function: Cargo operations (Chemical Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures

Ref no	12.2	Topic: Cargo operations - washing of tanks, preparation for next cargo and tank inspection procedures	<i>Criteria for evaluating competence:</i> Safe working practices are observed and explained and appropriate safety and protective equipment is correctly used.	
Task number	Task to be performed		STO Sign	Date
12.2.1	Assist in carrying out tank cleaning.			
12.2.2	Demonstrate understanding with tank cleaning guidelines and company procedures			
12.2.3	Assist with use of additives during tank cleaning.			
12.2.4	Demonstrate understanding of the following operations:			
12.2.4.1	Drying			
12.2.4.2	Padding			
12.2.4.3	Pre wash requirements.			
12.2.5	Demonstrate understanding of the terms “passivation” and “pickling” with respect to stainless steel tanks			
12.2.6	Demonstrate understanding of the degree and method of tank cleaning. Discuss in detail with chief officer with respect to at least three cargo change operations			
12.2.7	Identify the protective and safety equipment required by IBC code.			
12.2.8	Accompany chief officer into a cargo tank for inspection.			
12.2.9	Assist in preparing tank inspection report.			
12.2.10	Demonstrate understanding of the use of emergency escape sets.			
12.2.11	Demonstrate understanding of the emergency pumping arrangement.			
12.2.12	Demonstrate understanding of the use and limitations of filter type respiratory equipment.			

8.9. Function: Cargo operations (Chemical Tankers) - inspection/ testing of cargo related equipment

Ref no	12.3	Topic: Cargo operations – inspection/ testing of cargo related equipment	<i>Criteria for evaluating competence:</i> Operations and inspections are conducted in accordance with accepted principles and manufacturer’s instructions	
Task number	Task to be performed		STO Sign	Date
12.3.1	Test emergency shut-down of cargo pumps and associated valves.			
12.3.2	Test the emergency shut down system together with Chief Officer.			
12.3.3	Locate the various locations from where ESD can be operated.			
12.3.4	Show familiarization with "wall wash test" procedure.			
12.3.5	Check and confirm that emergency showers are operational.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.10. Function: Cargo operations (Gas Tankers)

Ref no	12.4	Topic: Cargo operations	<i>Criteria for evaluating competence: Cargo operations are carried out in accordance with accepted principles and procedures to ensure safety of operations</i>	
Task number	Task to be performed		STO Sign	Date
12.4.1	Basic knowledge of liquefied gas tankers: types of liquefied gas tankers; general arrangement and construction.			
12.4.2.	Basic knowledge of cargo operations:			
12.4.2.1	piping systems and valves			
12.4.2.2	cargo handling equipment			
12.4.2.3	loading, unloading and care in transit			
12.4.2.4	emergency shutdown (ESD) system			
12.4.2.5	tank cleaning, purging, gas-freeing and inerting			
12.4.3.	Basic knowledge of the physical properties of liquefied gases, including:			
12.4.3.1	properties and characteristics			
12.4.3.2	pressure and temperature, including vapour pressure/temperature relationship			
12.4.3.3	types of electrostatic charge generation			
12.4.3.4	chemical symbols			
12.4.4.	Basic knowledge of the hazards associated with tanker operations, including:			
12.4.4.1	health hazards			
12.4.4.2	environmental hazards			
12.4.4.3	reactivity hazards			
12.4.4.4	corrosion hazards			
12.4.4.5	explosion and flammability hazards			
12.4.4.6	sources of ignition			
12.4.4.7	electrostatic hazards			
12.4.4.8	toxicity hazards			
12.4.4.9	vapour leaks and clouds			
12.4.4.10	extremely low temperatures			
12.4.4.11	pressure hazards			
12.4.5.	Basic knowledge of hazard controls:			
12.4.5.1	inerting, drying and monitoring techniques			
12.4.5.2	anti-static measures			
12.4.5.3	ventilation			



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.4.5.4	segregation		
12.4.5.5	cargo inhibition		
12.4.5.6	importance of cargo compatibility		
12.4.5.7	atmospheric control		
12.4.5.8	gas testing		
12.4.6.	Understanding of information on a Material Safety Data Sheet (MSDS)		
12.4.7.	Function and proper use of gas-measuring instruments and similar equipment		
12.4.8.	Proper use of safety equipment and protective devices, including:		
12.4.8.1	breathing apparatus and tank evacuating equipment		
12.4.8.2	protective clothing and equipment		
12.4.8.3	resuscitators		
12.4.8.4	rescue and escape equipment		
12.4.9.	Basic knowledge of safe working practices and procedures in accordance with legislation and industry guidelines and personal shipboard safety relevant to liquefied gas tankers, including:		
12.4.9.1	precautions to be taken when entering enclosed spaces		
12.4.9.2	precautions to be taken before and during repair and maintenance work		
12.4.9.3	safety measures for hot and cold work		
12.4.9.4	electrical safety		
12.4.9.5	ship/shore safety checklist		
12.4.10.	Basic knowledge of first aid with reference to a Material Safety Data Sheet (MSDS)		
12.4.11.	Tanker fire organization and action to be taken		
12.4.12.	Special hazards associated with cargo handling and transportation of liquefied gases in bulk		
12.4.13.	Fire-fighting agents used to extinguish gas fires		
12.4.14.	Fixed fire-fighting foam system operations		
12.4.15.	Portable fire-fighting foam operations		
12.4.16.	Fixed dry chemical system operations		
12.4.17.	Basic knowledge of spill containment in relation to fire-fighting operations		
12.4.18.	Basic knowledge of emergency procedures, including emergency shutdown		
12.4.19.	Basic knowledge of the effects of pollution on human and marine life		
12.4.20.	Basic knowledge of shipboard procedures to prevent pollution		
12.4.21.	Basic knowledge of measures to be taken in the event of spillage, including the need to:		
	report relevant information to the responsible persons		
	assist in implementing shipboard spill-containment procedures		



Deck Cadet Training Record Book

For Prospective 3rd Officer

	prevent brittle fracture		
--	--------------------------	--	--

SECTION 9. SHIPBOARD OPERATIONS (POLAR WATER / WINTER CONDITIONS)

Ref no	13	Competence: Contribute to the safe operation of ships operating in polar waters and winter conditions	
Ref no	13.1	Topic: Shipboard operations (polar waters/ winter conditions)	Criteria for evaluating competence: <i>Safe working practices and procedures, and Cold weather precautions are observed and appropriate safety and protective equipment for colder climates is correctly used.</i>
Task number	Task to be performed		STO Sign
			Date
13.1.1	Assist in draining the fire lines, external fresh water lines to the main deck and bridge window wash water line		
13.1.2	Assist in circulating the ballast and slacking down the ballast tanks.		
13.1.3	Demonstrate understanding of the personal protective equipment to be worn and precautions to be carried out whilst working on deck in winter conditions.		
13.1.4	Demonstrate understanding of the cold weather precautions required for hydraulic machinery for mooring winches and hatch covers.		
13.1.5	Interpret Ice charts and demonstrate understanding of the terminology used for ice identification (type / thickness / concentration).		
13.1.6	Assist in switching on the space heaters in forward stores and under-deck spaces (e.g. bow thruster room, emergency fire pump room / steering flat / emergency generator room / hydraulic pump rooms)		
13.1.7	Clear the mooring areas, safety walkways, pilot access points and hatch covers of ice and snow regularly. Explain the importance of sprinkling rock salt in these areas.		
13.1.8	Assist in taking the cold weather precautions with regards to bridge equipment (radars, clear-view screens, whistles, horns and bridge windows).		
13.1.9	Pour antifreeze liquid into sounding pipes of ballast tanks.		
13.1.10	Demonstrate understanding of the hazards associated with freezing sprays and ice accretion.		
13.1.11	Demonstrate understanding of the hazards associated with terrestrial navigational aids in polar waters.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 10. CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD

10.1. Function: Bunkering procedures

Ref no.	14	Competence: Ensure compliance with pollution prevention requirements		
Ref no.	14.1	Topic: Bunkering procedures	<i>Criteria for evaluating competence: Procedures for carrying out and monitoring bunker operations and ensuring compliance with MARPOL are fully understood.</i>	
Task number	Task to be performed		STO Sign	Date
14.1.1	Plug deck scuppers effectively			
14.1.2	Demonstrate understanding of the ship's bunkering procedures and various checklists involved with bunkering operations			
14.1.3	Participate in pre-bunkering meeting.			
14.1.4	Assist in connection and disconnection of bunker hoses.			
14.1.5	Under supervision, operate and test portable (Wilden) pump.			
14.1.6	Participate and understudy the team leaders in a drill for clean-up of hazardous cargo spillage.			
14.1.7	Participate in a bunker line pressure testing operation and state how frequently is it required.			

10.2. Function: Pollution prevention regulations

Ref no.	14.2	Topic: Pollution prevention regulations	<i>Criteria for evaluating competence: Pollution prevention regulations are fully understood and complied with at all times.</i>	
Task number	Task to be performed		STO Sign	Date
14.2.1	Demonstrate understanding of vessel's operational requirements under the International Convention for the Prevention of Pollution from Ships (MARPOL) annexes to prevent pollution			
14.2.2	Locate vessel's garbage management plan and demonstrate understanding of contents, color coding of receptacles, etc			
14.2.3	Demonstrate understanding of the regulations for segregation of garbage and disposal of garbage at sea (special and non-special areas) in compliance with MARPOL.			
14.2.4	Identify the special areas under Marpol Annex I and Annex V.			
14.2.5	Read and discuss the criteria for disposal of batteries, tube lights, and expired medicines with STO.			
14.2.6	Read and discuss the criteria for disposal of cargo residues with STO.			
14.2.7	Identify the Emission Control Areas under Marpol Annex VI.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.3. Function: Bilge and ballast operations

Ref no.	14.3	Topic: Bilge and ballast operations	<i>Criteria for evaluating competence:</i> <i>Bilge and ballast operations are carried out in accordance with MARPOL and local regulations</i>	
Task number	Task to be performed		STO Sign	Date
14.3.1	Assist deck officers carry out ballasting and de-ballasting operations.			
14.3.2	Set lines for ballasting and de-ballasting operations			
14.3.3	Assist in pumping out chain locker and forward stores			
14.3.4	Set lines for pumping out the bilges.			

10.4. Function: Ship stability (including understanding of the fundamentals of watertight integrity)

Ref no.	15	Competence: Maintain seaworthiness of the ship		
Ref no.	15.1	Topic: Ship stability (including understanding of the fundamentals of watertight integrity)	<i>Criteria for evaluating competence:</i> <i>Demonstrates that the stability conditions comply with the IMO intact stability criteria under all conditions of loading and actions to ensure and maintain the watertight integrity of the ship are in accordance with accepted practice.</i>	
Task number	Task to be performed		STO Sign	Date
15.1.1	Refer to the stability booklet and determine which tanks cause relatively more free surface effect if kept slack.			
15.1.2	Check the stability booklet for any specific loading limitations.			
15.1.3	Assist with hose testing (weather tightness) of hatches.			
15.1.4	Assist in checking weather tightness of watertight doors			
15.1.5	Assist in checking all load line related items and maintain good condition at all times, including - all closing appliances, air vents, ventilators, load line marks, etc. (refer condition of freeboard assignment form).			
15.1.6	Maintain the watertight doors, ports and hatches. Assist in replacing rubber packing as required.			

10.5. Function: Ship construction

Ref no.	15.2	Topic: Ship construction	<i>Criteria for evaluating competence:</i> <i>The construction of the principal structural members of a ship is understood and the proper names for the various parts are stated.</i>	
Task number	Task to be performed		STO Sign	Date
15.2.1	Identify various parts of the principal structural members of a ship.			
15.2.2	Under supervision, open and inspect an air pipe			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.6. Function: Securing vessel for sea.

Ref no.	15.3	Topic: Securing vessel for sea.	<i>Criteria for evaluating competence:</i> Actions to secure vessel for sea are in accordance with the accepted practices. Company procedures for securing the vessel for sea are understood.	
Task number	Task to be performed		STO Sign	Date
15.3.1	Demonstrate ability to rig safety lines and guard rails.			
15.3.2	Check and confirm that all equipment in stores, deck and mooring area are properly stowed and secured and that all water and weather tight openings are closed tight prior to departure			
15.3.3	Assist the crew in securing gangway.			

10.7. Function: Seamanship practices

Ref no.	15.4	Topic: Seamanship practices	<i>Criteria for evaluating competence:</i> Actions to secure vessel for sea are in accordance with the accepted practices. Company procedures for securing the vessel for sea are understood.	
Task number	Task to be performed		STO Sign	Date
15.4.1	Make various knots, bends, hitches and whippings.			
15.4.2	Locate all the sounding pipes, filling pipes and air pipes on board and draw up a location plan			
15.4.3	Observe and record the daily soundings of tanks, bilges and other compartments			
15.4.4	Use calibration/sounding tables for determining ballast tank quantities after applying various corrections.			
15.4.5	Assist in lubrication of deck equipment and understand lubrication techniques.			
15.4.6	Breakout new coils of ropes and wires. Correctly stow wires and ropes with due regard to their preservation			
15.4.7	Assist in receiving fresh water from ashore and from barges			
15.4.8	Rig clusters and portable lights.			
15.4.9	Assist with maintenance of stays and aerials.			
15.4.10	Demonstrate the use of various portable gas analyzers on board including:			
15.4.10.1	Oxygen analyzer			
15.4.10.2	Multi gas detector			
15.4.10.3	Toxic gas detector			
15.4.10.4	Personal gas monitors			
15.4.10.5	Explosimeters			
15.4.11	Identify the span gas required for calibrating each portable analyzer on board. Assist in calibrating various portable analyzers and maintain records			
15.4.12	Keep a deck and gangway watch and tend mooring lines and gangway			



Deck Cadet Training Record Book

For Prospective 3rd Officer

15.4.13	Rig and use stages under supervision		
15.4.14	Rig and use bosun's chair under supervision.		
15.4.15	Assist crew with splicing of ropes and wires.		
15.4.16	Maintain fairleads.		
15.4.17	Receive, check, stow and secure ship's stores		
15.4.18	Assist with rigging of pilot ladder and combination ladders, including pilot hoist (if fitted). Monitor Pilot's safety when embarking and disembarking		
15.4.19	Assist crew in checking condition of pilot ladder ropes, steps and securing arrangements.		
15.4.20	Assist crew in rigging accommodation ladder, gangway and gangway net.		
15.4.21	Prepare steel plates and other surfaces for protective coating		
15.4.22	Demonstrate various painting techniques and correct procedure for mixing of paints		
15.4.23	Identify and understand use of purging points provided on hydraulic lines and machinery.		
15.4.24	Locate the Material Safety Data Sheets (MSDS) for the paints onboard and demonstrate awareness of action to be taken in an emergency		

10.8. Function: Operation and maintenance of fire fighting appliances (FFA)

Ref no.	16	Competence: Prevent, control and fight fires on board		
Ref no.	16.1	Topic: Operation and maintenance of fire fighting appliances (FFA)	Criteria for evaluating competence: The Cadet is able to demonstrate the operation, testing and maintenance of FFA as per Fire Maintenance Manual.	
Task number	Task to be performed		STO Sign	Date
16.1.1	Read and discuss the contents of the FFA Training Manual on board.			
16.1.2	Locate the fire control plan and identify equipment included in the plan.			
16.1.3	Demonstrate use and donning of self contained breathing apparatus (SCBA) set after carrying out all required checks. Identify different parts of a SCBA set.			
16.1.4	Demonstrate use of safety harness and line including the signals used			
16.1.5	Under supervision, operate main and emergency fire pump			
16.1.6	Recognize the difference between a SCBA set and an emergency escape breathing device (EEBD).			
16.1.8	Demonstrate understanding of operation of fixed fire detection and alarm system			
16.1.9	Assist the safety officer in the inspection and maintenance, and understand the use of			
16.1.9.1	Portable foam extinguisher			
16.1.9.2	Portable CO2 extinguisher			
16.1.9.3	Portable dry powder extinguisher			



Deck Cadet Training Record Book

For Prospective 3rd Officer

16.1.9.4	Portable water extinguisher		
16.1.11	Assist in taking inventory of the safety locker		
16.1.12	Take inventory of all the emergency equipment in the emergency headquarters (fire station room).		
16.1.13	Assist with re-charging of portable extinguishers		
16.1.14	Demonstrate understanding of the safety precautions and procedures required prior to operating the fixed fire fighting system.		
16.1.15	Use a breathing apparatus record / control board during a fire drill		
16.1.16	Locate all fire line isolation valves on board and understand their use		
16.1.17	Assist in starting and operating emergency generator.		
16.1.18	Assist the safety officer with the testing of the following FFA, where fitted:		
16.1.18.1	Fire detection and alarm systems		
16.1.18.2	Fixed CO ₂ /DCP extinguishing system		
16.1.18.3	Fixed steam extinguishing system		
16.1.18.4	Fixed automatic sprinkler system		
16.1.18.5	Fixed fire fighting system in paint room		
16.1.18.6	Fixed foam extinguishing system		
16.1.18.7	Fire flaps and dampers		
16.1.18.8	Foam applicators		
16.1.18.9	Automatic and manual fire doors		
16.1.18.10	Emergency shut off valves, pump stops and main engine stops		
16.1.19	Under supervision, operate the breathing apparatus (BA) air compressor and assist with charging of BA air bottles.		

10.9. Function: Fire fighting

Ref no.	16.2	Topic: Fire fighting	<i>Criteria for evaluating competence: The type and scale of the problem is promptly identified and initial actions conform to the emergency procedure and contingency plans for the ship. Ability to act in an emergency is demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
16.2.1	Identify the classes of fire and components of the fire triangle.			
16.2.2	Identify and minimize fire hazards. Demonstrate understanding of the actions to be taken in the event of fire, including fires involving oil systems.			
16.2.3	Participate in a fire drill at sea and in port			
16.2.4	Lead a fire party during a drill			
16.2.5	Perform fire rounds			
16.2.6	Participate and understudy the team leaders in a search and rescue drill for an enclosed space			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.10. Function: Life saving appliances (LSA)

Ref no.	17	Competence: Operate life saving appliances		
Ref no.	17.1	Topic: Life saving appliances (LSA)	<i>Criteria for evaluating competence:</i> <i>Actions in responding to abandon ship and survival situations are appropriate to the prevailing circumstances and conditions and comply with accepted safety practices and standards.</i> <i>The Cadet is able to demonstrate knowledge of the operation of survival craft and rescue boats, the launching appliances and arrangements, and the equipment, including radio life-saving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids.</i>	
Task number	Task to be performed		STO Sign	Date
17.1.1	Under supervision, start the lifeboat and rescue boat engines			
17.1.2	Demonstrate the procedures for testing the operation of:			
17.1.2.1	Search and rescue transponder			
17.1.2.2	Hand-held VHF transceivers			
17.1.2.3	Emergency Position Indicating Radio Beacon			
17.1.3	Locate the life saving signals table displayed and familiarize with its use.			
17.1.4	Prepare an emergency muster list.			
17.1.5	Locate the SOLAS training manual on board			
17.1.6	Locate the lifeboat launching instructions posted at the lifeboat deck and demonstrate understanding of launching procedures and procedures of abandoning a ship.			
17.1.7	Demonstrate understanding of the procedure for launching (including liferaft stowed away from accommodation area) and inflating liferafts.			
17.1.8	Identify the permanent markings required on the survival craft (lifeboat, rescue boat and liferaft).			
17.1.9	Assist with weekly 'moving' of lifeboats and record same			
17.1.10	Assist with monthly 'turning out' of lifeboats and record same.			
17.1.11	Demonstrate ability to use and maintain LSA equipment, including			
17.1.11.1	Life jackets			
17.1.11.2	Immersion suits, thermal protective aids			
17.1.11.3	Lifebuoys, self igniting lights, man overboard markers			
17.1.12	Locate and demonstrate understanding of the operation of all pyrotechnics carried on board and in lifeboats, and the procedure for disposal of out of date pyrotechnics			
17.1.13	Assist the crew with the maintenance of survival craft and equipment, including			
17.1.13.1	Lifeboats and rescue boats			
17.1.13.2	Lifeboat equipment and provisions			



Deck Cadet Training Record Book

For Prospective 3rd Officer

17.1.13.3	Launching davits and gear		
17.1.13.4	Lifeboat falls		
17.1.14	Assist crew in preparing and lowering of lifeboats		
17.1.15	Check the statutory equipment required to be carried in a survival craft (lifeboat, rescue boat, liferaft). Recognize minimum food and water requirements for survival craft occupants		
17.1.16	Participate in routine lowering and manoeuvring of a lifeboat, clear the ship and cox the boat away from the ship under supervision		
17.1.17	Demonstrate understanding of the procedure for recovering a rescue boat in rough weather.		
17.1.18	Check the securing arrangements of a liferaft (including liferaft stowed away from accommodation) and recognize the function of the hydrostatic release unit (HRU) and weak link.		
17.1.19	Check lifesaving equipment as per planned maintenance system and maintain readiness at all times		
17.1.20	Demonstrate understanding of the regulations concerning annual and other servicing and testing requirements of liferafts, lifeboats and launching and recovery arrangements.		
17.1.21	Assist engineers with the routine maintenance of a lifeboat and rescue boat engine		
17.1.22	Assist the crew with inspection and overhaul of a davit winch..		

10.11. Function: Practical application of medical guides and advice by radio and medical equipment on board

Ref no.	18	Competence: Apply medical first aid on board ship		
Ref no.	18.1	Topic: Practical application of medical guides and advice by radio and medical equipment on board.	Criteria for evaluating competence: The Cadet is able to demonstrate the practical application of medical guides and advice by radio and to locate medical equipment on board.	
Task number	Task to be performed		STO Sign	Date
18.1.1	Locate and read the "International Medical Guide for Ships".			
18.1.2	Locate all first aid boxes and check that contents are in order.			
18.1.3	Identify the information required and procedures for requesting radio medical advice.			
18.1.4	Use resuscitation equipment.			
18.1.5	Access the medical locker and locate various medicines and equipment.			
18.1.6	Assist in taking inventory of medical locker, including narcotics in Master's custody.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.12. Function: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia

Ref no.	18.2	Topic: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia	<i>Criteria for evaluating competence:</i> <i>Identification of probable cause, nature and extent of injuries or conditions is prompt and treatment minimizes immediate threat to life.</i> <i>The Cadet is able to demonstrate correct procedures for treating burns, scalds, fractures, shock, heat stroke and hypothermia.</i>	
Task number	Task to be performed		STO Sign	Date
18.2.1	Participate in a first aid drill.			
18.2.2	Demonstrate knowledge of first aid procedures for arresting the bleeding of a casualty, cardiopulmonary resuscitation, and treatment of suffocation and drowning.			
18.2.3	Demonstrate procedures for treatment of burns and scalds.			
18.2.4	Demonstrate procedures for treatment of minor fractures.			
18.2.5	Demonstrate handling a casualty in shock.			
18.2.6	Demonstrate procedures for dealing with a casualty from electric shock.			
18.2.7	Demonstrate procedures for dealing with heat stroke.			
18.2.8	Demonstrate procedures for treating casualty with hypothermia including placing the casualty in recovery position.			

10.13. Function: Familiarize with various statutory regulations and requirements

Ref no.	19	Competence: Monitor compliance with legislative requirements		
Ref no.	19.1	Topic: Familiarize with various statutory regulations and requirements	<i>Criteria for evaluating competence:</i> <i>Legislative requirements relating to safety of life at sea and protection of the marine environment are correctly identified. The Cadet is able to demonstrate basic working knowledge of the relevant IMO conventions concerning safety of life at sea and protection of the marine environment.</i>	
Task number	Task to be performed		STO Sign	Date
19.1.1	Read and discuss the contents of SOLAS with STO			
19.1.2	Identify the common port state control detainable deficiencies			
19.1.3	Check the certificates and manuals issued under SOLAS, MARPOL, International Load Line, STCW Convention and other regulations.			
19.1.4	Check ballast water exchange requirements and identify the methods of carrying out a ballast water exchange.			
19.1.5	Recognize the importance of keeping records for all events.			
19.1.6	Read the objectives of ISM Code and discuss with STO.			
19.1.7	Check the contents of the ship's articles of agreement.			
19.1.8	Demonstrate understanding of the STCW 2010 / ILO rest hour requirements with respect to seafarers and the importance of maintaining proper rest hour records.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.14. Function: Safety of personnel and ship

Ref no.	20	Competence: Contribute to the safety of personnel and ship		
Ref no.	20.1	Topic: Safety of personnel and ship	Criteria for evaluating competence: <i>Procedures and safe working practices designed to safeguard personnel and the ship are observed at all times. The Cadet is able to demonstrate knowledge of safe working practices.</i>	
Task number	Task to be performed		STO Sign	Date
20.1.1	Attend tool box meetings prior to carrying out various jobs			
20.1.2	Demonstrate understanding of the use of various checklists (wherever applicable) and precautions required for various critical jobs such as:			
20.1.2.1	Entry into enclosed spaces			
20.1.2.2	Working aloft			
20.1.2.3	Working overside			
20.1.2.4	Carrying out hot work			
20.1.2.5	Using power tools			
20.1.2.6	Manual lifting and carrying.			
20.1.3	Identify the personal protection equipment (PPE) available on board and its use for various jobs.			
20.1.4	Accompany the safety officer whilst carrying out monthly safety inspection rounds.			
20.1.5	Identify and discuss with the Chief Officer the hazards involved in carrying out various jobs and control measures required to be put in place prior carrying out any job, including use of proper PPE			
20.1.6	Assist in carrying out a formal risk assessment for a critical job and understand the importance of risk assessment before carrying out a job.			
20.1.7	Demonstrate understanding of company's accident investigation and reporting procedure.			
20.1.8	Identify and analyze three near misses occurring during the time on board and discuss results with the chief officer.			

10.15. Function: Ship security

Ref no.	21	Competence: Contribute to the enhancement of maritime security through heightened awareness		
Ref no.	21.1	Topic: Ship security	Criteria for evaluating competence: <i>The Cadet is able to demonstrate basic working knowledge of maritime security terms and procedures. Requirements relating to enhanced maritime security are correctly identified and complied.</i>	
Task number	Task to be performed		STO Sign	Date
21.1.1	Recognize the three security levels			
21.1.2	Understudy the Ship Security Officer with regards to his duties and responsibilities			



Deck Cadet Training Record Book

For Prospective 3rd Officer

21.1.3	Identify the Company Security Officer and his contact details. Explain his duties and responsibilities		
21.1.4	Demonstrate proper procedures whilst maintaining a security watch at sea and in port		
21.1.5	Demonstrate understanding of the duties and procedures to be followed at all the three security levels for access control, cargo, stores, etc. as per the Ship's Security Plan.		
21.1.6	Locate all the restricted areas on board your vessel.		
21.1.7	Participate in carrying out a thorough search for stowaway, narcotics, explosives or other contraband items. Use company's vessel search checklist		
21.1.8	Demonstrate an understanding of the use and function of Ship Security Alert System (SSAS).		
21.1.9	Identify the circumstances when Declaration of Security (DOS) is carried out		
21.1.10	Understudy team leaders in various security drills		



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 11. STEERING CERTIFICATE

It is important that you learn to steer the ship at sea and understand how to execute helm orders correctly. You should take turns at the wheel by day, by night and when entering and leaving port. Ensure that you keep a proper record of your steering experience by asking the officer in charge to complete the steering record. When you have completed the turns at the wheel, ask the master to sign the Cadet's Steering Certificate.

Competence: Steer the ship and also comply with helm orders in the English language		
Topic: Steering the ship	<i>Criteria for evaluating competence: A steady course is steered within acceptable limits, having regard to the area of navigation and prevailing sea state. Alterations of course are smooth and controlled. Communications are clear and concise at all times and orders are acknowledged in a seamanlike manner.</i>	
Task to be performed	STO Sign	Date
Comply correctly with helm orders in English language.		
Demonstrate correct procedure for handing/taking over the wheel.		
Demonstrate correct change over procedures from auto-pilot to hand steering and vice versa		
Steer the ship by magnetic compass.		
Steer the ship for periods totalling for at least the duration mentioned below, excluding the period of instruction.		
Steer by compass (day): 10 hours.		
Steer by compass (night): 10 hours.		
Steer by sight (without the aid of a compass): 5 hours.		
Steer while entering and leaving port: 5 hours.		
Steer the ship whilst entering and leaving port.		
Steer the ship in canal and river transits.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.1. Cadet's Steering Record (By compass (day))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By compass (day)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.2. Cadet's Steering Record (By compass (night))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By compass (night)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.3. Cadet's Steering Record (By sight (without aid of a compass))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By sight (without aid of a com- pass)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.4. Cadet's Steering Record (While entering and leaving port)

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
While entering and leaving port									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.5. Steering Certificate

To be issued by the Master once all Steering Training is completed and the cadet is considered proficient.

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

From _____ To _____.

During this period of structured shipboard training, the Cadet took turns at steering the ship (apart from the periods of instruction) as given below:

The number of bridge watches kept is as follows:

Steering	Total Hours
By compass during day	
By compass during night	
By sight (without compass)	
While entering and leaving port	

Master's signature & ship's stamp

Master's Name

“ _____ ” _____ (Date)



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 12. RECORD OF WATCHKEEPING

12.1. Record of Bridge Watchkeeping

Date	Time (from/to)	Voyage number	Voyage description (state departure and arrival ports)	Type of watch (sea / pilotage / anchorage)	Remarks (describe watch activities)	Signature of OOW

Master's Signature

Stamp and Date



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.2. Record of Port Watches

Date	Time From	Time To	Voyage number	Name of port / terminal	Description of cargo operation (loading / discharging / others)	Remarks (describe activities carried out during watch)	OOW Signature

Master's Signature

Stamp and Date



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.3. Bridge Watchkeeping Certificate

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

from _____ to _____

During this period of structured shipboard training, the Cadet has been assisting the bridge watchkeepers in watchkeeping duties in accordance with STCW 2010 Table A-II/1.

The number of bridge watches kept is as follows:

Bridge watches	Total number of watches	Total hours
At sea		
At anchor		
During arrival and departure		

Master's signature

Ship's stamp

12.4. Port Watchkeeping Certificate

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

from _____ to _____

The number of port watches kept is as follows:

Port watches	Total number of watches	Total hours
At Anchor		
Alongside		

Master's signature

Ship's stamp



SECTION 13. PROJECT WORK

The purpose of project work is to ensure that the Cadet becomes thoroughly acquainted with the ship and operations, especially with the bridge, deck and cargo operations. A project file needs to be maintained. The project file to have an Index listing out the Projects done along with the STO's signature and stamp in the bottom of the index page, prior sign off from each ship.

Projects are to be ship specific with respect to the type of equipment or the nature of the operations carried out. Each project is to be accompanied by appropriate diagrams, sketches, photographs and checklists. These projects are structured assessment activity tasks where the cadet gathers all the relevant information himself during the time allocated by the STO. The aim is to check whether the cadet is able to use all the resources available on board and demonstrate written proficiency in the concerned topic. The pre-sea institute must check that the written information is worded appropriately and by verbal questioning confirm the understanding of the cadet.

13.1. PROJECTS: NAVIGATION

Part - 1

Draw a plan showing the layout of the Navigation Bridge and equipment.

Draw the radar shadow/blind sectors and describe the procedure for testing the performance of the radar/ARPA. Observe and record the performance monitor readings and compare them with the original readings.

Describe the procedure for correction of navigational charts and publications- ALRS, ALL, Sailing Directions. Correct these publications on at least one occasion under the supervision of the officer concerned.

Describe activities on the bridge for arrival and departure.

Part - 2

Plan a passage between any two ports under the supervision of the officer concerned, including selection of charts, plotting of courses on the charts, and use of publications. Explain in detail the four stages of a voyage plan; appraisal, planning, execution and monitoring.

Describe the operation and set-up (manual and automatic) of the bridge navigational watch alarm system.

Prepare AMVER messages "Arrival Port", "Departure Port", "At Sea Noon". Attach a copy of each type of AMVER message sent.

13.2. PROJECTS: CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD

Part - 1

Draw plan views of the decks showing all LSA and FFA with the proper IMO symbols and also the sounding pipes with their color coding.

Locate the sounding pipes and air pipes of all the tanks on the ship, including ballast tanks,



Deck Cadet Training Record Book

For Prospective 3rd Officer

bunker tanks, cofferdams and peak tanks. Also locate the sounding pipes of hold bilges. Draw a color coded plan indicating the location of all these items.

Draw the ventilation arrangement on board and state clearly the natural and forced types of ventilators.

Draw the bilge and ballast piping plan showing the outline of pumps, eductor, ballast, tank, non-return and cross-over valves in the system. What sort of bilge pumping arrangement is used? Write down the procedure of how you would pressure test the bilge line and the non-return valve.

List all the safety precautions to be taken when working aloft and when working overside.

Describe the precautions to be taken when entering a double bottom ballast tank for inspection.

State how many mooring ropes and wires are on board. Describe where they are kept, their sizes and lengths, characteristics, strengths, advantages and disadvantages and whether and where any spares are carried. Describe the precautions you would take to prevent damage to a coil of polypropylene rope.

Draw a figure to show the mooring arrangements at your last port of call and explain why such configuration was used. What does the mooring plan of the ship indicate? Sketch the snap back zones on the forecastle mooring drawing.

Draw a block diagram of the steering system and explain the operation of the emergency steering.

Draw the outline of the fixed fire-fighting system and explain its operation.

Observe the loadline marks, make a detailed sketch of these marks and explain the function of each mark

Part – 2

Prepare a monthly report on the maintenance carried out on the LSA and FFA.

List the procedures and checks to be carried out before and after flooding in dry-dock. Draw a plan view of all bottom plugs.

Make a table of the various areas of the vessel, with the type of paint coating used (including primer, number of coats, type of surface preparation most suited) - as per the paint scheme provided by the paint manufacturer.

13.3. ADDITIONAL PROJECTS FOR OIL AND CHEMICAL TANKERS

Complete projects explaining the following topics, ensuring each project is accompanied by appropriate diagrams, sketches, photographs and checklists. Projects to be ship specific with respect to the type of equipment and the nature of the operations carried out on board the ship



Deck Cadet Training Record Book

For Prospective 3rd Officer

Draw the pipeline layout for an inert gas system from engine room to deck showing all valves and safety trips / alarms including deck seal and PV breaker. Explain with a diagram the working of a deck seal unit.

Draw a plan of the pump room and associated pipelines.

Draw a cross-section of the pressure vacuum valve and describe the operating principle.

Compile process sheets for deballasting and loading cargo.

Compile process sheets for discharging cargo, ballasting, crude oil washing, cargo heating and stripping / educting.

Describe the operation of the Framo-pump system (if provided).

Compile process sheets for inerting, purging and aeration.

Compile process sheets for tank cleaning, including for change of grades, and for gas freeing for man-entry.

Draw the lay-out of the emergency shut down (ESD) system (if provided), including activation locations.

- a. state when the ESD should be operated and list the circumstances when the ESD is to be activated manually
- b. list the equipment, including valves, which trip on activation of the ESD
- c. explain in writing, the testing procedure of ESD and record manifold valve closure timings

Gas measuring equipment – describe the principles, operation procedures and calibration of:

- d. oxygen analyzer
- e. explosimeter – combustible gas monitor
- f. tank scope - toxic gas monitor - chemical reagent tubes - explain how a reading is taken
- g. fixed gas detector system.

Oil discharge monitoring equipment – describe / draw:

- h. pipeline diagram from cargo tanks to overboard discharges
- i. oil-water interface – principle of operation
- j. operating procedures
- k. alarms, auto-shut off (activation limits), working of recording system.



Deck Cadet Training Record Book

For Prospective 3rd Officer

PART 2

SECOND PRACTICE

Ship's Name _____

**The second part of the training is intended for cadets
who have completed the five year of education
at the institute**



Deck Cadet Training Record Book

For Prospective 3rd Officer

Shipboard Training Officer's Monthly Review of the Book

Comments should only relate to the Cadet's practical progress in training and competence.

No	Ship	Comments	STO Name	STO Signature and Stamp	Date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					



Deck Cadet Training Record Book

For Prospective 3rd Officer

Master's Monthly Review of the Book

Comments should only relate to Cadet's practical progress in training and competence.

№	Ship	Comments	Master's Name	Master's Signature and Stamp	Date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 3. MANDATORY SAFETY AND SHIPBOARD FAMILIARISATION

3.1. Basic Training as required by Section A-VI/1 paragraph 2 of the STCW Code

As part of your pre-sea training you should have completed Basic Training or instruction as listed. Enter details of this training or instruction below.

Course	Date	Name of Institution	Location	Certificate No.
Personal Survival Techniques				
Fire prevention and Fire fighting				
Elementary First Aid				
Personal Safety and Social Responsibilities				
Security Training: Security Awareness Training				
Certificate of Proficiency for Seafarers with Designated Security Duties				
Ship Security Officer				
Record of Other Professional Training				
Proficiency in Survival Craft & Rescue Boat				
Radar Observer Course				
Automatic Radar Plotting Aids				
Medical First Aid				
GMDSS General Operator's Certificate				
Oil and Chemical Tanker Familiarization				
Gas Tanker Familiarization				

3.2. Shipboard Safety and Security Familiarization

In accordance with STCW 2010 Section A-VI/1 and Section A-VI/6, before being assigned to shipboard duties the Cadet is to receive safety and security familiarization in accordance with the Company's checklist.

Task / Duty	Officer's Signature /date
Safety and emergency procedures: Demonstrate recognition for the following alarm signals: General emergency alarm Fire alarm Abandon ship.	
Locate and don lifejacket and immersion suit.	
Locate and understand operation of fire-fighting equipment: alarm activation points, fire extinguishers, fire axes, fire hydrants, hoses and nozzles. Have basic knowledge of the use of portable fire extinguishers. Know location of fire wallet.	



Deck Cadet Training Record Book

For Prospective 3rd Officer

Locate and understand operation of line throwing apparatus, distress rockets, flares and smoke signals.	
Locate and understand operation of SART, EPIRB and emergency VHF handheld radios.	
Locate and understand operation of breathing apparatus and fireman's outfit.	
Locate medical first aid equipment. Know location of keys for hospital and medical locker.	
Locate and understand operation of emergency deck stop mechanism for main engines, including other emergency stop valves.	
.Locate CO2 room or any other fixed fire-fighting installation on board, and control valves for smothering apparatus in pump rooms, cargo tanks and holds.	
Locate and understand the operation of emergency fire pump.	
Understand safety symbols and signs.	
Safety and emergency procedures: if a person falls overboard if fire or smoke is detected upon hearing the general emergency alarm and/or fire alarm.	
Identify emergency muster stations, emergency headquarters (EHQ), lifeboat embarkation stations and emergency escape routes.	
Know the immediate actions to be taken upon encountering a medical emergency before seeking further medical assistance on board.	
Be able to operate (close/open) the fire, weather-tight doors and water-tight doors fitted on the ship, other than those for hull openings.	
Read and demonstrate an understanding of the Company's Fire and Safety Regulations and be able to communicate with other persons on board on elementary safety matters.	
Watchkeeping procedures and arrangements	
Visit bridge, poop deck, forecastle, main deck and other work areas.	
Become acquainted with steering controls, telephones, telegraphs and other bridge equipment and displays.	
Environmental protection	
Understand the garbage handling, segregation and disposal procedures on board.	
Locate the garbage compactor or other such equipment as appropriate and understand its use.	
Security procedures	
Identify the restricted areas on board.	
Understand the security level on board.	
Identify the Ship Security Officer. Locate the contact details of the Company Security Officer.	
Know the procedures to follow when a security threat is recognized.	
Be able to report a security incident, including a piracy or armed robbery threat or attack.	
Be able to take part in security-related emergency and contingency procedures.	



Deck Cadet Training Record Book

For Prospective 3rd Officer

Insert boat and fire muster stations and other details in the table below and request the Master to sign in the space provided

Lifeboat Muster Station	
Lifeboat Duties	
Emergency Muster Station	
Emergency Duties	
Oil Spill Duties	
Ship Safety Officer's Name/ Rank	
Ship Security Officer's Name/ Rank	
Master's Name	
Master's Signature	
Date	



Deck Cadet Training Record Book

For Prospective 3rd Officer

Insert boat and fire muster stations and other details in the table below and request the Master to sign in the space provided

Lifeboat Muster Station	
Lifeboat Duties	
Emergency Muster Station	
Emergency Duties	
Oil Spill Duties	
Ship Safety Officer's Name/ Rank	
Ship Security Officer's Name/ Rank	
Master's Name	
Master's Signature	
Date	



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 4. PARTICULARS OF SHIPS

It is an essential feature of your training that you obtain knowledge of the ships on which you serve. To assist you in meeting this important requirement the following particulars are to be recorded during the time spent on each ship. Questions on this subject, with particular reference to your last ship, are likely to be put to you during an oral examination and assessment for your certificate of competency.

General Particulars	Service speed:	Fixed fire-fighting system:
Ship's name:	Main engine output (kW at rev/min):	SCBA (no. & make):
Ship type:	Type of steering gear:	Cargo handling gear
IMO number:	Mooring ropes (number / diameter)	Derricks / Cranes (no. & SWL):
Call sign:	Natural fiber:	Winches (type):
Flag:	Synthetic fiber:	Other cargo equipment:
Length overall:	Wires:	
Breadth:	Towing springs:	
Depth:	Anchors (number of shackles / weight)	
Summer draft:	Port:	
Summer freeboard:	Starboard:	Ballast tanks (no. & capacity):
Gross tonnage:	Stern:	Cargo tanks (no. & capacity):
Net tonnage:	Spare:	Cargo pumps (no. & capacity):
Deadweight:	Cable (diameter):	
Light displacement:	Life saving equipment	
Fresh water allowance (FWA):	Lifeboat type (open / enclosed / free-fall):	Navigational & communication equipment (make and model)
Immersion at load draft (TPC):	Lifeboats (no.):	Radar / ARPA:



Deck Cadet Training Record Book

For Prospective 3rd Officer

Trimming moment (MCTC):	Liferafts (no.):	Log:
Bale capacity:	Lifeboat (dimensions):	GPS:
Grain capacity:	Lifeboat capacity (persons):	Magnetic compass:
Liquid capacity:	Liferaft capacity (persons):	Gyro compass:
Refrigerated capacity:	Lifeboat falls (diameter):	Echo sounder:
Container capacity (TEU):	Lifeboat davits (type):	Auto-pilot:
Fresh water capacity:	Lifebuoys (number):	VHF:
Daily fresh water generation:	Fire fighting equipment	MF / HF:
Daily fresh water consumption:	Fire extinguishers (no. & capacity):	SAT C:
Main engine particulars	Water:	ECDIS:
Engine (type):	Foam:	SART / EPIRB:
Boilers (type and number):	Dry powder:	Navtex:
Bunker capacity:	CO2:	AIS / LRIT:
Daily Consumption:	Fire hoses (no. & size):	VDR:



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 5. INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA

When cadets are examined for certificates of competency they will be required to demonstrate a thorough knowledge of the Rules and their application.

Parts A, B, C, D and E. A thorough knowledge of the rules is required. When the cadet can demonstrate that each rule has been committed to memory and is also able to demonstrate a clear understanding of their use and application, the appropriate box should be initialed and dated by an officer.

Annex 1. An outline knowledge is required, however the provisions of Section 9 a should be fully understood.

Annexes II and III. A general knowledge of these annexes is required.

Annex IV. A full and comprehensive knowledge of distress signals is required.

Note: Whilst outline knowledge of each rule and the Annex is required, a thorough knowledge is required of the rules shaded in blue.

PART A General			PART B Steering and Sailing								
			Section 1			Section 2			Section 3		
Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date
1			4			11			19		
			5			12					
2			6			13					
			7			14					
3			8			15					
			9			16					
			10			17					
						18					

PART C Lights and Shapes			PART D Sound and Light Signals			PART E Exemptions					
Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date	Rule	Signature	Date
20			26			32			38		
21			27			33					
22			28			34					
23			29			35					
24			30			36					
25			31			37					



Deck Cadet Training Record Book

For Prospective 3rd Officer

Annex I Details of Lights and Shapes Technical Details					
Rule	Signature	Date	Rule	Signature	Date
1			8		
2			9a		
3			9b		
4			10		
5			11		
6			12		
7			13		
			14		

Annex II Additional Signals for Fishing vessels			Annex III Details of Sound Signal Appliances		
Rule	Signature	Date	Rule	Signature	Date
All			All		

Annex IV Distress Signals		
Rule	Signature	Date
All		



SECTION 6. INFORMATION ON TRAINING TASKS AND COMPETENCES TO BE ACHIEVED

This section of your Record Book gives details of the training tasks that you should follow to make best use of your time at sea. You will see that each page lists the tasks or duties that you should undertake. Completion of these will lead to meeting the competences. A senior officer should review your progress and indicate, with initials and date in the blue box on the right hand side of the page, that your performance is considered to meet the Criteria for Evaluation and that competence has been demonstrated in that element. The officer may offer advice on areas in which improvement is necessary. The competences required by a watchkeeping officer as tabulated in the STCW Code are listed below. This Section is organized as follows:

COMPETENCES FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH (STCW CODETABLE AvII/1):

Navigation at the Operational Level

- Plan and conduct a passage and determine position;
- Maintain a safe navigational watch;
- Use of radar and ARPA to maintain safety of navigation;
- Use of ECDIS to maintain the safety of navigation;
- Respond to emergencies;
- Respond to a distress signal at sea;
- Use the IMO Standard Marine Communication Phrases and use English in written and oral form;
- Transmit and receive information by visual signaling;
- Manoeuvre the ship.

Cargo Handling and Stowage at the Operational Level

- Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes.

This Book covers extra tasks for cadets (not mentioned in STCW Code Table A-II/1) whose training at sea includes experience on tankers.

Cargo Handling and Stowage - Additional Tasks for Tankers

- Monitor loading of cargoes;
- Monitor discharging of cargoes;
- Maintain and overhaul cargo systems and associated equipment.

Controlling the Operation of the Ship and Care for Persons On Board at the Operational Level

- Ensure compliance with pollution-prevention requirements;
- Maintain seaworthiness of the ship;
- Prevent, control and fight fires on board;
- Operate life-saving appliances;
- Apply medical first aid on board ship;
- Monitor compliance with legislative requirements;
- Application of leadership and team working skills.

The competences for Ship Security are also included in this book based on STCW Table A-VI/6-1. This structured shipboard training programme includes an extra section for Cadets whose training at sea includes experience on tankers and liquefied gas carriers (if applicable). Reference is made to STCW 2010 Table A-V/1-1-1 (oil and chemical tankers) and STCW 2010 Table A-V/1-2-1 (liquefied gas tankers).

The designed tasks are directly relevant to the competences required by STCW 2010. The aim is for the Cadet to be “considered proficient” in all of these competences by the end of the cadetship period. All the competences designated are based on the practical tasks carried out on board.



Deck Cadet Training Record Book

For Prospective 3rd Officer

Each competence is sub-divided into a number of practical tasks. Theoretical aspects are covered during shore-based training.

When the cadet completes a task and can convincingly demonstrate his proficiency in the task, STO or designated officer can sign against that task.

Once all the sub-tasks in each group are fully completed and signed off, then STO should sign and date the box mentioned “Considered Proficient” which indicates that the cadet is now proficient in that “Topic”.

The main functions (navigation, cargo handling and stowage, controlling the operation of the ship and care for persons on board) follow STCW guidelines (STCW 2010 Table A-II/1). The practical tasks for the competence “Application of leadership and team working skills” are addressed in other related competences in these three functions. The tasks for specialized vessels (oil and chemical tankers, gas tankers) are also included.

The policy applied for training on these specialized vessels is to address only the main competences applicable to the Cadet, tailored to suit the onboard training environment. The entire STCW competences related to security will be addressed in a shore-based security awareness course.

The Assessment method in this training programme is “on board assessment by the Shipboard Training Officer (STO)” and assessment tools are “practical demonstration”, and “oral questioning by STO”. The Activity Workbook, which is a supplement to this training programme, contains the “written assessments” for relevant tasks.

The tasks are divided into two parts based on the sea time requirements of the cadetship period. The intention is to complete all the tasks within the allocated part. However tasks meant for the next part of training can also be attempted / completed earlier based on the trading pattern of the vessel and suitable opportunities. The objective is to complete all the tasks in the structured shipboard training programme by the end of the cadetship period.



SECTION 7. TASKS FOR OFFICERS IN CHARGE OF A NAVIGATIONAL WATCH

The training in this section of this Record Book covers the requirements for the certification of officers in charge of a navigational watch.

The requirements for certification are as follows:

Regulation II/I Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more:

3. Every officer in charge of a navigational watch serving on a seagoing ship of 500 gross tonnage or more shall hold a certificate of competency;
4. Every candidate for certification shall:
 - Be not less than 18 years of age;
 - Have approved seagoing service of not less than 12 months as part of an approved training programme which includes onboard training that meets the requirements of section A-II/I of the STCW Code and is documented in an approved training record book, or otherwise have approved seagoing service of not less than 36 months;
 - Have performed, during the required seagoing service, bridge watchkeeping duties under the supervision of the master or a qualified officer for a period of not less than six months;
 - Meet the applicable requirements of the regulations in Chapter IV, as appropriate, for performing designated radio duties in accordance with the Radio Regulations;
 - Have completed approved education and training and meet the standard of competence specified in section A-II/I of the STCW Code; and
 - Meet the standard of competence specified in section A-VI/1, paragraph 2, section A-VI/2, paragraphs 1 to 4, section A-VI/3, paragraphs 1 to 4 and section A-VI/4, paragraphs 1 to 3 of the STCW Code.

Completion of the ISF Training Record Book for Deck Cadets should ensure a structured approach is undertaken so that trainees can make best use of their time at sea.

7.1. Function: Navigation - Celestial navigation

<i>Ref no.</i>	1	Competence: Plan and conduct a passage and determine position		
<i>Ref no.</i>	1.1	Topic: Celestial navigation	<i>Criteria for evaluating competence:</i> The Cadet is able to demonstrate the use of essential instruments and publications. The position as obtained by celestial observations is within acceptable accuracy, due regard being given to possible position line errors and meteorological conditions.	
Task number	Task to be performed		STO Sign	Date
1.1.1	Identify and correct sextant instrument errors. Obtain and apply index error.			
1.1.2	Obtain accurate bearings of sun, moon, stars and planets.			
1.1.3	Recognize conspicuous star constellations and stars of first magnitude. Practice use of star chart and star finder. Identify most suitable celestial bodies during twilight.			
1.1.4	Obtain accurate readings of sextant altitudes of celestial bodies.			
1.1.5	Calculate the time of meridian altitude of the sun.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.1.6	Calculate latitude by Polaris or by meridian altitude of the sun.		
1.1.7	Practice celestial observations (sights) using the sextant and obtain position lines and positions.		
1.1.8	Plot three position lines and obtain ship's position.		
1.1.9	Calculate times of sunset, sunrise and twilight using the Nautical Almanac.		

7.2. Function: Navigation - Terrestrial and coastal navigation

Ref no.	1.2	Topic: Terrestrial and coastal navigation	Assessment Criteria: <i>The primary method of fixing the ship's position is the most appropriate in the prevailing circumstances and conditions. The position is determined within the limits of acceptable instrument/system errors. Calculations and measurements of navigational information are accurate. The Cadet is able to demonstrate sufficient knowledge of the IALA Maritime Buoyage System.</i>	
Task number	Task to be performed		STO Sign	Date
1.2.1	Recognize various landmarks and aids to navigation, including lighthouses, beacons, buoys and topographical features.			
1.2.2	Demonstrate understanding of identifying characteristics of lights and of the 'rising' and 'dipping' of lights and compare the observed and charted characteristics of lights.			
1.2.3	Take accurate bearings of a point of land, a lighthouse or a beacon (identified on the chart).			
1.2.4	Determine the ship's dead reckoning position and estimated position, taking into account winds, tides, currents and estimated speed.			
1.2.5	Demonstrate understanding of the IALA Maritime Buoyage System for Region A and Region B including the emergency wreck marking buoy.			
1.2.6	Practice position fixing using three simultaneous observations, with various combinations of visual bearings, radar bearings and radar ranges of conspicuous objects.			

7.3. Function: Navigation - Charts and publications

Ref no.	1.3	Topic: Charts and publications	Criteria for evaluating competence: <i>The information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied. All potential navigational hazards are accurately identified.</i>	
Task number	Task to be performed		STO Sign	Date
1.3.1	Demonstrate familiarity with the chart folio system.			
1.3.2	Demonstrate understanding of the use of BA Chart 5011 (Symbols and Abbreviations used on Admiralty Paper Charts) and identify various chart symbols; e.g. buoys, marks, wrecks, obstructions, shallow depths, reefs and other dangers to navigation. Correctly interpret information obtained from charts and publications.			
1.3.3	Make inventory of publications available on bridge.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.3.4	Demonstrate understanding of the contents and use of relevant BA publications, including:		
1.3.4.1	Weekly, Cumulative and Annual Notices to Mariners		
1.3.4.2	Mariner's Handbook (NP 100)		
1.3.4.3	Catalogue of Admiralty Charts and Publications (NP 131)		
1.3.4.4	Sailing Directions		
1.3.4.5	Ship's Routing Information		
1.3.4.6	Ocean Passages for the World		
1.3.4.7	List of Lights and Fog Signals (including Digital list of lights)		
1.3.4.8	Tide Tables, Tidal Stream Atlases		
1.3.4.9	Admiralty List of Radio Signals		
1.3.4.10	Routing charts.		
1.3.5	Demonstrate understanding of the procedures for correction of charts as explained in the publication "How to keep your Admiralty charts up to date" (NP 294).		
1.3.6	Record chart corrections using BA NP 133A or appropriate digital method.		
1.3.7	Identify the instruments required for chart correction and chart work.		
1.3.8	Assist correction of charts using Notices to Mariners in paper or digital format and chart tracings.		
1.3.9	Assist checking of new charts received.		
1.3.10	Assist correction of Admiralty Sailing Directions.		
1.3.11	Assist correction of Admiralty List of Radio Signals.		
1.3.12	Assist correction of Admiralty List of Lights and Fog Signals.		
1.3.13	Assist correction of voyage charts for T & P notices and navigational warnings.		
1.3.14	Identify the publication containing information on approved traffic separation schemes.		

7.4. Function: Navigation - Passage planning

Ref no.	1.4	Topic: Passage planning	<p><i>Criteria for evaluating competence:</i></p> <p><i>The charts selected are the largest scale suitable for the area of navigation and charts and publications are corrected in accordance with the latest information available.</i></p> <p><i>The courses are suitably set in respect of the ship's size, draft and maneuver ability, with sufficient distance off shallow waters, banks and other dangers to navigation.</i></p> <p><i>Due consideration is given to current, ice, prevailing meteorological conditions, routing and traffic separation schemes.</i></p>
---------	-----	-------------------------	--



Deck Cadet Training Record Book

For Prospective 3rd Officer

Task number	Task to be performed	STO Sign	Date
1.4.1	Assist selection of charts and publications for an intended voyage.		
1.4.2	Assist planning of voyage from berth to berth in three legs i.e. berth to pilot, pilot to pilot and pilot to berth. Set courses on Chart.		
1.4.3	Compare a large scale chart with a small scale chart covering same area. Recognize that many details and dangers may not be marked on small scale charts		
1.4.4	Use a gnomonic chart for planning an ocean crossing track and transfer the track to Mercator charts		

7.5. Function: Navigation - Electronic systems of position fixing and navigation

Ref no.	1.5	Topic: Electronic systems of position fixing and navigation	<i>Criteria for evaluating competence: Performance checks and tests to navigation systems comply with manufacturer's recommendations and good navigational practice. The Cadet is able to demonstrate the operation of the equipment correctly.</i>	
Task number	Task to be performed		STO Sign	Date
1.5.1	Use GPS fix to plot vessel's position, after applying applicable datum errors.			
1.5.2	Demonstrate the following with respect to the operation of GPS:			
1.5.2.1	Calculate distances and create / edit a route using GPS			
1.5.2.2	Create / insert way points			
1.5.2.3	Set limits and use the GPS alarms; i.e. HDOP, cross track, arrival waypoint, anchor watch, etc.			
1.5.2.4	Set and use rhumb line / great circle mode.			
1.5.3	Demonstrate understanding of the principle and use of DGPS.			
1.5.4	Identify other satellite navigation systems under development			
1.5.5	Demonstrate understanding of the principle of Enhanced Loran (E-Loran).			

7.6. Function: Navigation – Equipment - Echo sounders

Ref no.	1.6	Topic: Echo sounders	<i>Criteria for evaluating competence: The Cadet is able to demonstrate the operation of the echo sounder and correctly apply the information.</i>	
Task number	Task to be performed		STO Sign	Date
1.6.1	Demonstrate operation of echo sounder and correctly apply the information obtained. Compare observed depth with charted depth after adjusting for tide, etc. Set depth alarm, where fitted.			
1.6.2	Assist in record keeping with respect to the echo sounder and markings on the recorder.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

1.6.3	Locate the spares of echo sounder equipment. Demonstrate understanding of the maintenance requirements, including changing of recorder stylus and belt (if applicable).		
-------	---	--	--

7.7. Function: Navigation – Equipment - Compass - Magnetic and gyro

Ref no.	1.7	Topic: Compass - Magnetic and gyro	<i>Criteria for evaluating competence: Errors in magnetic and gyro compasses are determined and correctly applied to courses and bearings. The Cadet is able to make entries in the compass error book.</i>	
Task number	Task to be performed		STO Sign	Date
1.7.1	Demonstrate boxing of compass.			
1.7.2	Apply magnetic variation and deviation to magnetic compass readings.			
1.7.3	Demonstrate the use of deviation card when using magnetic compass readings.			
1.7.4	Compare compasses and determine compass error using:			
1.7.4.1	Azimuth, choosing the body with most suitable altitude			
1.7.4.2	Amplitude			
1.7.4.3	Transit bearings.			
1.7.5	Use the compass error book, make entries under supervision and compare the deviation obtained with the deviation card readings.			

7.8. Function: Navigation – Equipment - Steering control systems

Ref no.	1.8	Topic: Steering control systems	<i>Criteria for evaluating competence: The selection of the mode of steering is the most suitable for the prevailing weather, sea and traffic conditions and intended maneuvers. The Cadet is able to use various modes of steering.</i>	
Task number	Task to be performed		STO Sign	Date
A1.8.1	Perform change-over from manual to automatic steering and vice versa under supervision. Test the system on all modes available, including NFU mode.			
A1.8.2	Adjust various controls available in the steering control system for optimum performance.			
A1.8.3	Identify various alarms associated with the steering control system. Demonstrate setting and testing of "off course" alarm under supervision.			
A1.8.4	Demonstrate setting up of the "course recorder" for heading and GMT.			
A1.8.5	Demonstrate understanding of the procedures for the change over for autopilot from gyro compass to transmitting magnetic heading device if fitted.			
A1.8.6	Demonstrate understanding of the procedures for the change over for emergency steering. Steer from local control.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.9. Function: Navigation – Meteorology

Ref no.	1.9	Topic: Meteorology	<i>Criteria for evaluating competence: Measurements and observations of weather conditions are accurate and appropriate to the passage. Meteorological information is correctly interpreted and applied.</i>	
Task number	Task to be performed		STO Sign	Date
1.9.1	Read barometer accurately and obtain corrected barometric pressure.			
1.9.2	Read barograph if fitted and obtain the barometric tendency.			
1.9.3	Read hygrometer / psychrometer and obtain dew point.			
1.9.4	Obtain and record sea and air temperatures.			
1.9.5	Estimate wind direction (by wave observation) and wind force using sea state (Beaufort scale).			
1.9.6	Estimate swell direction and wave height.			
1.9.7	Recognize main cloud types.			
1.9.8	Assist in observing, recording and sending weather observations.			
1.9.9	Interpret weather reports and warnings. Assess information obtained from weather faxes, including positions of lows, highs, fronts, winds, wave heights and periods, warning areas, storm warnings, fog and other warnings.			
1.9.10	Estimate the predicted positions and path of the weather systems with respect to the ship's position and predict weather expected enroute.			
1.9.11	Identify procedures to reduce the adverse effects of heavy seas.			
1.9.12	Derive meteorological information from routeing charts and demonstrate the use of wind roses.			
1.9.13	Calculate tides for a standard and a secondary port from the tide tables – and obtain: (i) height of tide for a given time and (ii) time on a given date for a particular height of tide.			
1.9.14	Determine the direction and the rate of tidal stream at locations marked on chart by tidal diamond (symbol \diamond) and also obtain tidal information from software in use.			
1.9.15	Demonstrate understanding of the application of Buys Ballot's law.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.10. Function: Navigation – Watchkeeping

Ref no.	2	Competence: Maintain a safe navigational watch		
Ref no.	2.1	Topic: Watchkeeping	Criteria for evaluating competence:	
			<p><i>The conduct, handover and relief of the watch conform to accepted principles and procedures.</i></p> <p><i>A proper look-out is maintained at all times and in such a way as to conform to accepted principles and procedures.</i></p> <p><i>The frequency and extent of monitoring of traffic, the ship and the environment conform with accepted principles and procedures.</i></p> <p><i>The Cadet explains how responsibility for the safety of navigation is clearly defined at all times, including periods when the master is on the bridge and while under pilotage.</i></p> <p><i>The Cadet is able to demonstrate procedures for maintaining a safe navigational watch.</i></p> <p><i>The total distance is correctly calculated and the ETA given within acceptable time limits.</i></p>	
Task number	Task to be performed		STO Sign	Date
2.1.1	Read and discuss with a senior officer "Watch keeping arrangements and principles to be observed" concerning navigation watch at sea and anchor as stated in STCW 2010.			
2.1.2	Keep a proper look-out by day and night. Report objects correctly and assess and determine risk of collision.			
2.1.3	Read Master's standing and bridge orders. Identify the circumstances for when to call the Master.			
2.1.4	Demonstrate understanding of procedure for handing over and taking over a bridge watch and the principles of safe watchkeeping and bridge manning levels.			
2.1.5	Assist watchkeeping officer in keeping a safe navigational watch at sea.			
2.1.6	Assist watchkeeping officer in keeping an anchor watch.			
2.1.7	Supervise ratings in watchkeeping duties.			
2.1.8	Understudy an officer on the bridge during coastal navigation and during navigation under pilotage, including berthing and unberthing.			
2.1.9	Demonstrate understanding of procedures for navigating in restricted visibility.			
2.1.10	Demonstrate understanding of the instructions provided in the deck log book and procedures for making and correcting entries. Under supervision, make an entry in the deck log book for a navigational watch.			
2.1.11	Under supervision, make entries in the bridge movement book.			
2.1.12	Observe a Master-Pilot information exchange.			
2.1.13	Give required notices to engine room for arrival and departure.			
2.1.14	Attend in the engine room when vessel is berthing and unberthing (two periods each).			



Deck Cadet Training Record Book

For Prospective 3rd Officer

2.1.15	Practice ETA calculations taking into account the time difference, distance and estimated speed, after allowing for expected weather and currents. Assist duty officer with noon calculations.		
--------	--	--	--

7.11. Function: Navigation – Navigational equipment

Ref no.	2.2	Topic: Navigational equipment	<i>Criteria for evaluating competence: The Cadet is able to demonstrate the use of all information from navigational equipment for maintaining a safe navigational watch.</i>	
Task number	Task to be performed		STO Sign	Date
2.2.1	Receive full bridge familiarization as per company's Safety Management System checklist from a navigating officer.			
2.2.2	Demonstrate ability to set up and operate: Navtex, including selecting and deselecting message types and transmitting stations Weather fax, where fitted Distance/speed logs Bridge controls during maneuvering; e.g. telegraph, whistle / horn, intercom.			
2.2.3	Assist in renewal of recording paper of various equipment; i.e. course and rudder position indicator recorder, echo sounder, telegraph order printer, Navtex, weather fax, GMDSS printers, etc.			
2.2.4	Locate and identify all the navigational and emergency equipment being supplied by the emergency switchboard for safe navigation.			
2.2.5	Locate the alarms units for Bridge Navigational Watch Alarm System (where fitted).			
2.2.6	Locate the sound reception system and external microphones (if fitted).			
2.2.7	Demonstrate ability to set up and operate Automatic Identification System. Input the own vessel's voyage data in AIS and obtain static and dynamic information of other vessels. Recognize the limitations of AIS			
2.2.8	Demonstrate understanding of the backup procedures of the Voyage Data Recorder / Simplified Voyage Data Recorder. Locate the operation panel, main recording control unit and the protective capsule.			

7.12. Function: Ship reporting systems

Ref no.	2.3	Topic: Ship reporting systems	<i>Criteria for evaluating competence: Reporting is in accordance with the General Principles for Ship Reporting Systems and with VTS procedures.</i>	
Task number	Task to be performed		STO Sign	Date
2.3.1	Assist duty officer in preparing and sending AMVER reports.			
2.3.2	Assist watchkeeping officer in making various reports pertaining to ship reporting systems, as per their prescribed formats given in the publications and assist in sending such reports.			
2.3.3	Identify Vessel Traffic Information System reporting points on the chart			
2.3.4	Carry out necessary communication and reporting to the VTIS.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.13. Function: Bridge resource management

Ref no.	2.4	Topic: Bridge resource management	<i>Criteria for evaluating competence:</i> <i>Communication is clearly and unambiguously given and received. The Cadet is able to demonstrate accurate understanding of current and predicted vessel state, navigation path and external environment. Effective leadership behaviors are identified</i>	
Task number	Task to be performed		STO Sign	Date
2.4.1	Practice the use of closed loop communications, particularly during navigation on the bridge and when communicating on walkie-talkies.			
2.4.2	Recognize the role of the Pilot on the bridge team.			
2.4.3	Attend bridge team meetings.			
2.4.4	Demonstrate understanding of the concept of challenge and response during questionable decisions and/or actions on the bridge.			
2.4.5	Respond to Master's and Pilot's orders when using engine telegraph and communication equipment during arrival and departure.			

7.14. Function: Use of radar and ARPA to maintain safety of navigation

Ref no.	3	Competence: Use of radar and ARPA to maintain safety of navigation		
Ref no.	3.1	Competence: Use of radar and ARPA to maintain safety of navigation	<i>Criteria for evaluating competence:</i> <i>Information obtained from radar and ARPA is correctly interpreted and analyzed, taking into account the limitations of the equipment and prevailing circumstances and conditions.</i>	
Task number	Task to be performed		STO Sign	Date
3.1.1	Practice radar set-up procedure and carry out system tests.			
3.1.2	Identify conspicuous land marks on a radar picture.			
3.1.3	Plot fixes by radar using radar ranges and bearings. Check the accuracy of radar fixes with visual fixes.			
3.1.4	Demonstrate understanding of the methods of target acquisition (including auto-acquire) and their limitations.			
3.1.5	Perform optimum settings of anti sea and rain clutter controls.			
3.1.6	Practice comparing and correlating the actual visual scenario with the radar picture.			
3.1.7	Demonstrate understanding of the limitations of the radar and ARPA and be aware of the possibility of misinterpretation of information, false echoes, sea returns, reliance on scanty data / information, etc.			
3.1.8	Use radar performance monitors and analyze results by comparing them with the original readings.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

3.1.9	Perform the change over of the display from sea stabilized to ground stabilized mode. Recognize the advantages and disadvantages of both.		
3.1.10	Check heading line marker alignment with fore and aft line of the vessel.		

7.15. Function: Using radar/ ARPA for collision avoidance

Ref no.	3.2	Topic: Using radar/ ARPA for collision avoidance	Criteria for evaluating competence: <i>Action taken to avoid close encounters or collisions with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972</i>	
Task number	Task to be performed		STO Sign	Date
3.2.1	Demonstrate ability to determine range, bearing, course, speed, CPA and TCPA of targets.			
3.2.2	Demonstrate ability to identify and track small boats.			
3.2.3	Practice parallel indexing techniques.			
3.2.4	Demonstrate understanding of correct setting of CPA / TCPA alarms with respect to area of navigation.			
3.2.5	Carry out long range scanning by changing radar scales at regular intervals.			
3.2.6	Demonstrate understanding of the use of true and relative trails.			
3.2.7	Carry out manual radar plotting.			
3.2.8	Demonstrate ability to detect course and speed changes of other ships.			
3.2.9	Practice use of trial manoeuvres.			
3.2.10	Identify advantages and disadvantages of using true and relative vectors.			

7.16. Function: Use of ECDIS

Ref no.	4	Competence: Use of ECDIS to maintain the safety of navigation		
Ref no.	4.1	Topic: Use of ECDIS	Criteria for evaluating competence: <i>Information obtained from ECDIS (including radar overlay and/or radar tracking functions, when fitted) is correctly interpreted and analyzed, taking into account the limitations of the equipment, all connected sensors (including radar and AIS where interfaced), and prevailing circumstances and conditions.</i>	
Task number	Task to be performed		STO Sign	Date
4.1.1	Demonstrate understanding of the operation of ECDIS and ENC chart symbols (S-52).			
4.1.2	Use the various display options (base, standard, all and customized) available on ECDIS.			
4.1.3	Recognize the differences between: ECDIS and ECS (Electronic Charting System) Raster scan and vector charts.			
4.1.4	Assist watchkeeper in correcting / updating electronic charts –			



Deck Cadet Training Record Book

For Prospective 3rd Officer

	manual, semi-automatic and automatic methods.		
4.1.5	Demonstrate understanding of the limitations of ECDIS and dangers of over reliance.		
4.1.6	Plan and monitor a route using ECDIS.		
4.1.7	Demonstrate understanding of the optimum ECDIS settings and use of various alarms and indicators; e.g. watch vector, safety contour, cross track, arrival WPT, anchor watch settings.		
4.1.8	Demonstrate understanding of setting of safety depth/spot soundings.		
4.1.9	Identify the various inputs to the ECDIS. Select radar and AIS input to the ECDIS and use data provided.		
4.1.10	Confirm vessel position by alternative means.		

7.17. Function: Emergencies at sea

Ref no.	5	Competence: Respond to Emergencies		
Ref no.	5.1	Topic: Emergencies at sea	<i>Criteria for evaluating competence: The type and scale of the emergency at sea are promptly identified. Initial actions are in accordance with the contingency plans and are appropriate to the urgency of the situation and nature of the emergency. Ability to take actions in an emergency at sea is demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
5.1.1	Understudy officer in charge during an abandon ship drill.			
5.1.2	Understudy team leaders during emergency response exercises; e.g.:			
5.1.2.1	Heavy weather damage			
5.1.2.2	Collision			
5.1.2.3	Grounding			
5.1.2.4	Flooding			
5.1.2.5	Rescue of survivors / assisting a ship in distress			
5.1.2.6	Shipboard oil pollution incident at sea			
5.1.2.7	Gyro failure			
5.1.2.8	Steering failure			
5.1.2.9	Main engine/ power failure			
5.1.2.10	Security incident / drill at sea.			

7.18. Function: Emergencies in port

Ref no.	5.2	Topic: Emergencies in port	<i>Criteria for evaluating competence: The type and scale of the emergency in port are promptly identified. Initial actions are in accordance with the contingency plans and are appropriate to the urgency of the situation and nature of the emergency. Ability to take actions in an emergency in port is demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
5.2.1	Prepare a detailed contact list for port stay, listing the contact details of port control, fire department, local police, ambulance and tugs, by telephone or other methods of contact.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

5.2.2	Update the information in the fire wallet.		
5.2.3	Understudy the team leaders and participate in an emergency response exercise for a pollution incident in port.		
5.2.4	Understudy the team leaders and participate in an emergency response exercise for a security incident in port.		
5.2.5	Understudy the team leaders and participate in an emergency response exercise for a fire in the cargo area while in port.		
5.2.6	Demonstrate understanding of the contents of vessel's Shipboard Oil Pollution Emergency Plan (SOPEP).		
5.2.7	Demonstrate understanding of the procedure for alerting port emergency services.		

7.19. Function: Distress signals

Ref no.	6	Competence: Respond to a distress signal at sea		
Ref no.	6.1	Topic: Distress signals	<i>Criteria for evaluating competence: The distress signals are immediately recognized. Contingency plans and instructions in standing orders are implemented and complied with.</i>	
Task number	Task to be performed		STO Sign	Date
6.1.1	Identify the distress signals used at sea.			
6.1.2	Read the contents of ALRS Volume 5 related to operation of GMDSS.			
6.1.3	Demonstrate understanding of the actions to be taken upon receiving distress messages and signals at sea.			
6.1.4	Demonstrate understanding of the procedure for transmitting a distress alert using MF/HF, DSC and EPIRB.			
6.1.5	Demonstrate understanding of the procedure for transmitting a distress message using MF/HF, R/T, VHF, Inmarsat C, NBDP, Inmarsat B and Fleet-77.			
6.1.6	Read and discuss with a navigating officer the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volume III.			
6.1.7	Understudy the designated distress communication officer with regards to his duties and responsibilities			
6.1.8	Demonstrate sending DSC routine and test alerts under supervision.			
6.1.9	Assist watch keeping officer in carrying out required daily, weekly and monthly checks and testing of GMDSS equipment.			
6.1.10	Demonstrate understanding of procedures for cancelling a false distress alert			
6.1.11	Make entries in the GMDSS log book under supervision.			
6.1.12	Record the communications, information and actions, including routine equipment checks, in the GMDSS logbook.			

7.20. Function: IMO Standard Marine Communication Phrases

Ref no.	7	Competence: Use the IMO Standard Marine Communication Phrases and use English in written and oral form
----------------	----------	---



Deck Cadet Training Record Book

For Prospective 3rd Officer

Ref no.	7.1	Topic: IMO Standard Marine Communication Phrases	<i>Criteria for evaluating competence: Communications are clear and understood</i>
Task number	Task to be performed		STO Sign
A7.1.1	Communicate with other ships, coast stations and VTIS using the SMCP (IMO's Standard Marine Communication Phrases) ensuring that communications are clear and understood.		

7.21. Function: Use of English in written and oral form

Ref no.	7.2	Topic: Use of English in written and oral form	<i>Criteria for evaluating competence: English language nautical publications and messages relevant to the safety of the ship are correctly interpreted or drafted.</i>
Task number	Task to be performed		STO Sign
7.2.1	Use hand held transceivers (walkie-talkies) and communicate in English		
7.2.2	Communicate clearly in English during drills and exercises		
7.2.3	Communicate clearly in English at arrival and departure stations.		
7.2.4	Make log book entries in English. Demonstrate understanding of the content and use of nautical publications such as Sailing Directions / Mariner's Hand Book / Ocean Passages for the World.		
7.2.5	Communicate in English with a multi-lingual crew.		
7.2.6	Supervise ratings and communicate with the bridge in English during anchoring, mooring and unmooring. operations		

7.22. Function: Transmit and receive information by visual signaling

Ref no.	8	Competence: Transmit and receive information by visual signaling	
Ref no.	8.1	Topic: Communications-Morse light signaling	<i>Criteria for evaluating competence: Morse light signaling is correctly identified and understood.</i>
Task number	Task to be performed		STO Sign
8.1.1	Transmit and receive the distress signal (SOS) by Morse light.		
8.1.2	Visually signal International Code of Signals single letters		
8.1.3	Use and maintain the daylight signaling lamp and its battery.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

7.23. Function: Communications - Signaling by flags

Ref no.	8.2	Topic: Communications - Signaling by flags	<i>Criteria for evaluating competence: International Code of Signal flags are correctly identified and meaning of single letter flag hoists understood. Correct Flags are displayed.</i>	
Task number	Task to be performed		STO Sign	Date
8.2.1	Identify International Code of Signals flags and principal national flags.			
8.2.2	Recognize the meaning of single letter flag hoists.			
8.2.3	Code and decode using the International Code of Signals.			
8.2.4	Demonstrate understanding of flag etiquette			

7.24. Function: Maneuvering information

Ref no.	9	Competence: Manoeuvre the ship		
Ref no.	9.1	Topic: Maneuvering information	<i>Criteria for evaluating competence: The manoeuvring characteristics are correctly interpreted and understood.</i>	
Task number	Task to be performed		STO Sign	Date
9.1.1	Locate the maneuvering information on board.			
9.1.2	Obtain the stopping distances and turning circle parameters from the maneuvering information.			
9.1.3	Determine vessel's advance from her original course to when she has altered course by 90° from the maneuvering information, when the wheel is put hard over at full ahead in a loaded condition, and state the turning diameter.			
9.1.4	Demonstrate understanding of the recommended procedure for emergency stop and slow down of engines.			
9.1.5	Demonstrate understanding of squat, shallow water and similar effects. Calculate squat for a coastal passage at full speed (open and confined channel).			

7.25. Function: Anchoring and mooring procedures

Ref no.	9.2	Topic: Anchoring and mooring procedures	<i>Criteria for evaluating competence: Correct anchoring and mooring procedures are known and demonstrated.</i>	
Task number	Task to be performed		STO Sign	Date
9.2.1	Assist in preparation for mooring stations.			
9.2.2	Accompany an officer on deck for mooring and unmooring operations including securing and letting go tugs.			
9.2.3	Throw heaving line ashore.			
9.2.4	Demonstrate understanding of various types of mooring ropes.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

9.2.5	Demonstrate understanding of the markings on anchor cable.		
9.2.6	Operate mooring winches and windlass under supervision. Check brake lining and brake adjustment bolt clearance		
9.2.7	Use rope and chain stoppers under supervision and demonstrate the procedure for turning up mooring lines.		
9.2.8	Demonstrate safe handling of moorings, with reference to snap back zones, minimum turns on the winch drum, lead from the warping drum to the fairlead and precautions when using self-tensioning winches.		
9.2.9	Assist the crew with removing anchor lashings and other anchor related tasks, including:		
9.2.9.1	Preparation of anchors and letting go		
9.2.9.2	Walking back anchor in a controlled manner (deep water anchoring)		
9.2.9.3	Weighing of anchor, inspecting for damage and fouling.		
9.2.10	Accompany an officer on deck for anchoring operation. Recognize the significance and method of reporting to bridge the lead of the anchor chain.		
9.2.11	Use bow stopper and anchor brakes as directed by officer in charge during anchor stations.		
9.2.12	Assist with securing of anchors for sea. Recognize the importance of three point contact at the securing position.		
9.2.13	Demonstrate understanding of the procedure for releasing the bitter end of anchor chains.		
9.2.14	Assist inspection of chain locker		
9.2.15	Assist stowage of ropes after mooring operations.		
9.2.16	Place rat guards on mooring ropes after berthing and understand importance of securing rat guards.		
9.2.17	Demonstrate understanding of the precautions required for hydraulic mooring systems.		
9.2.18	Identify the points where tugs usually make fast.		

7.26. Function: Man overboard

Ref no.	9.3	Topic: Man overboard	<i>Criteria for evaluating competence: Maneuvers and procedures for the rescue of person overboard are clear and understood.</i>	
Task number	Task to be performed		STO Sign	Date
A9.3.1	Take part in a man overboard drill.			
A9.3.2	Demonstrate understanding of the "Williamson" turn or other methods for positioning the vessel to recover a person overboard.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 8. CARGO HANDLING AND STOWAGE FOR TANKERS

8.1. Function: Cargo operations (Oil Tankers) - loading and discharging

Ref no.	10	Competence: Contribute to safe cargo operations		
Ref no.	10.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence:</i> <i>Cargo operations with Cadet involvement are carried out in accordance with accepted principles and procedures to ensure safety of operations.</i>	
Task number	Task to be performed		STO Sign	Date
10.1.1	Demonstrate understanding of the working of fixed deck foam system.			
10.1.2	Demonstrate understanding of the meaning of letters 'A', 'P' & R in the 'Code' column of the Ship/Shore Safety Check List.			
10.1.3	Demonstrate understanding of "surge pressure" and the action required to avoid generation of surge pressure.			
10.1.4	Check closing timing of manifold valves and describe how the timing is adjusted			
10.1.5	Read the cargo loading and discharging plan. Demonstrate understanding of the importance of following the loading and deballasting sequence (for loading plan) and discharging and ballasting sequence (for discharging plan) as stated.			
10.1.6	Demonstrate basic knowledge of closed cargo operations			
10.1.7	Understudy a deck officer in supervising deck and cargo control room checks			
10.1.8	Assist the watchkeeper in supervising loading and discharging operations, including:			
10.1.8.1	Calculate hourly loading and discharging rates.			
10.1.8.2	Check stability and stress conditions regularly on loadicator to confirm that plan is being followed and maintain records			
10.1.8.3	Maintain the pump log.			
10.1.9	Make rounds on deck and confirm no leakages.			
10.1.10	Demonstrate understanding of the communication between ship and terminal at different stages of loading and discharging.			
10.1.11	Assist with topping-off tanks.			
10.1.12	Keep a record of loading and deballasting operations, and of discharging and ballasting operations.			
10.1.13	Assist with checking proper functioning of venting system, pressure-vacuum valves, hi-velocity vents.			
10.1.14	Monitor return lines (heating) for leakage.			
10.1.15	Assist with the operation of inert gas plant and monitor:			
10.1.15.1	Oxygen content in tanks and in the line			
10.1.15.2	Tank pressure			
10.1.15.3	IG line set-up			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.1.15.4	Various alarms and trips.		
10.1.16	Accompany the shore representative/ surveyor for final gauging and calculate cargo remaining on board		
10.1.17	Assist with the pre-heating/ warming up process for steam lines including drainage of water from the system.		
10.1.18	Monitor and record pressures in the cargo line, inert gas line and individual tanks.		
10.1.19	Demonstrate understanding of the dangers of water hammer in steam lines.		
10.1.20	Monitor cargo temperatures in individual cargo tanks and maintain temperature log.		
10.1.21	Assist with overhauling of steam traps on heating lines.		
10.1.22	Monitor tank levels, IG pressures and oxygen content daily and maintain relevant logs during voyage		
10.1.23	Carry out daily cargo related checks during voyage.		

8.2. Function: Cargo operations (Oil Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures.

Ref no	10.2	Topic: Cargo operations - washing of tanks, preparation for next cargo and tank inspection procedures.	Criteria for evaluating competence: <i>Safe working practices are observed and explained and appropriate safety and protective equipment is correctly used. Procedures for entry into enclosed spaces are observed and explained.</i>	
Task number	Task to be performed		STO Sign	Date
10.2.1	Comply with safety check list(s) prior to tank cleaning.			
10.2.2	Monitor atmosphere of tank being cleaned.			
10.2.3	Check continuity of tank cleaning hoses, if used.			
10.2.4	Demonstrate understanding of the precautions to be taken when washing in uncontrolled atmosphere after discharging flammable cargoes.			
10.2.5	Demonstrate understanding of the use of tank cleaning heater and its controls for temperature setting, etc.			
10.2.6	Assist preparation of a tank for man-entry, including:			
10.2.6.1	Purging			
10.2.6.2	Inerting			
10.2.6.3	Gas-freeing			
10.2.6.4	Enclosed entry procedure.			
10.2.7	Assist the chief officer in preparation and completion of the documentation required for man-entry into a cargotank.			
10.2.8	Assist in maintenance, use, operational testing and calibration of portable instruments for monitoring tank atmosphere: i.e			
10.2.8.1	Oxygen analyzers			
10.2.8.2	Explosimeters			
10.2.8.3	Vol % HC analyzers			
10.2.8.4	Multi gas detectors			
10.2.8.5	Personal gas detectors			
10.2.8.6	Toxic gas detectors, including chemical tubes.			
10.2.9	Identify the difference between calibration and operational testing of gas measuring instruments.			
10.2.10	Keep a record of tank cleaning operation.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

8.3. Function: Cargo operations (Oil Tankers) – inspection/testing of cargo related equipment

Ref no	10.3	Topic: Cargo operations – inspection/testing of cargo related equipment	<i>Criteria for evaluating competence: Operations and inspections are conducted in accordance with accepted principles and manufacturer's instructions.</i>	
Task number	Task to be performed		STO Sign	Date
10.3.1	Assist with overhaul of:			
10.3.1.1	Pressure-vacuum valve / hi-velocity vent			
10.3.1.2	Portable tank washing machine			
10.3.1.3	Gas freeing fans			
10.3.1.4	Fixed tank washing machines, including programmable units where provided			
10.3.1.5	Air hoist units.			
10.3.1.6	Eductors and non-return valves			
10.3.1.7	Actuators and valves			
10.3.2	Assist with routine maintenance of:			
10.3.2.1	Valve glands			
10.3.2.2	Pump strainers			
10.3.2.3	Tank lids			
10.3.3	Identify and demonstrate understanding of the working principle, characteristics of main types of pumps used on tankers, including:			
10.3.3.1	Centrifugal			
10.3.3.2	Stripping			
10.3.3.3	Vacuum			
10.3.3.4	Eductors			
10.3.4	Test portable winches, portable pumps and eductors.			

8.4. Function: Cargo operations (Oil Tankers) - Contribute to the safe cargo operations

Ref no	11	Competence: Contribute to the safe cargo operations.		
Ref no	11.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence: Cargo operations are carried out in accordance with accepted principles and procedures to ensure safety of operations. Cadet demonstrates basic knowledge of the physical properties of oil.</i>	
Task number	Task to be performed		STO Sign	Date
11.1.1	Read and discuss the contents of International Chamber of Shipping (ICS) Safety in Oil Tankers booklet with a senior officer.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.1.2	Demonstrate understanding of the contents of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).		
11.1.3	Demonstrate understanding of the basic properties of petroleum, namely vapor pressure and flammability.		
11.1.4	Interpret the flammability diagram and demonstrate understanding of the terms "flammability limits", "lower explosion limit" and "upper explosion limit"		
11.1.5	Demonstrate understanding of the effect of inert gas in lowering of the flammable envelope.		
11.1.6	Recognize the main hazards of petroleum, namely flammability, toxicity and pollution.		
11.1.7	Recognize the hazards associated with the handling and carriage of petroleum goods in bulk.		
11.1.8	Demonstrate understanding of the term "sour crude" and associated hazards.		
11.1.9	Assist the Chief Officer for compliance with the Ship / Shore Safety Checklist (Parts A & B) checklist, before arrival in port and while alongside.		
11.1.10	Accompany shore representative for confirming compliance with Ship / Shore Safety Check List.		
11.1.11	Demonstrate how to calculate cargo figures.		
11.1.12	Demonstrate understanding of common terms used in cargo calculations, including API, SG at 60 degrees F, density at 15 degrees C, long tonnes, barrels.		
11.1.13	Demonstrate understanding of the working and maintenance of the oil discharge monitoring and control system.		
11.1.14	Check the entries required in Oil Record Book Part II concerning cargo and ballast operations.		
11.1.15	Demonstrate knowledge of pipeline layout, pipeline systems, cargo pump operations and layout and operation of cargo valves.		
11.1.16	Assist with carrying out pre-arrival checks; including:		
11.1.16.1	Setting cargo lines prior to loading and discharging.		
11.1.16.2	Setting de-ballasting and ballasting lines.		
11.1.17	Assist with complying with pre arrival crude oil washing checklist.		
11.1.18	Assist with connecting ship's manifold to loading arms and flexible hoses and connecting reducers, where necessary.		
11.1.19	Interpret a centrifugal pump performance curve.		
11.1.20	Assist with the preparations for a ship to ship transfer operation.		
11.1.21	Locate the MSDS of the cargo(s) onboard, study the contents and identify the following:		
11.1.21.1	Cargo properties		
11.1.21.2	Cargo hazards		
11.1.21.3	Emergency procedures		
11.1.22	Demonstrate understanding of pump room entry procedures and the importance of keeping in contact with the cargo control room during pump room entry.		
11.1.23	Assist with collection of cargo samples.		
11.1.24	Assist with disconnecting ship's manifold with loading arms/flexible hoses and its blanking off.		
11.1.25	Assist with draining and cleaning of the manifold drip tray after disconnection of cargo arms / hoses.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.1.26	Demonstrate understanding of the following procedures for loading:		
11.1.26.1	Additional precautions to be taken when loading at a terminal with a vapour recovery system.		
11.1.26.2	Identify the vapour manifold and note difference in its flanged connection as compared to that of a liquid manifold		
11.1.27	Demonstrate understanding of the load on top (LOT) procedure		
11.1.28	Demonstrate use of portable cargo measurement devices		
11.1.29	Accompany the shore representative/surveyor for initial gauging and calculate cargo on board		
11.1.30	Assist with the set-up and starting of cargo pumps, stripping pumps and associated systems		
11.1.31	Assist in compliance with various crude oil washing checklists and carryout the following tasks:		
11.1.31.1	Monitoring oxygen level in tanks and in inert gas (IG) line		
11.1.31.2	Setting up lines for crude oil washing (COW)		
11.1.31.3	Monitoring COW line pressure		
11.1.31.4	Confirming COW cycles of the machines		
11.1.31.5	Reading and following a COW plan / bar chart in conjunction with the discharge plan		
11.1.31.6	Ensuring safeguards for avoiding hazards due to static discharges		
11.1.31.7	Draining cargo pumps and lines and pumping through small diameter line		
11.1.32	Assist with draining and eduction of tanks.		
11.1.33	Assist with the setting up of steam lines for cargo heating.		

8.5. Function: Cargo operations (Oil Tankers) - water washing of tanks and tank inspection procedures

Ref no	11.2	Topic: Cargo operations - water washing of tanks and tank inspection procedures	<i>Criteria for evaluating competence:</i> <i>Safe working practices are observed and appropriate safety and protective equipment is correctly used. Procedures for entry into enclosed spaces are observed</i>	
Task number	Task to be performed		STO Sign	Date
11.2.1	Assist in carrying out tank cleaning (water washing).			
11.2.2	Accompany Chief Officer into a cargo tank for inspection.			
11.2.3	Assist in preparing tank inspection report.			
11.2.4	Assist in tank cleaning and other procedures required for changing grades from dirty to clean oil on product tankers.			

8.6. Function: Cargo operations (Oil Tankers) – inspection of cargo pumps and equipment



Deck Cadet Training Record Book

For Prospective 3rd Officer

Ref no	11.3	Topic: Cargo operations – inspection of cargo pumps and equipment	<i>Criteria for evaluating competence: Operations and inspections are conducted in accordance with accepted principles and manufacturer's instructions.</i>	
Task number	Task to be performed		STO Sign	Date
11.3.1	Test emergency shut-down of cargo pumps and associated valves.			
11.3.2	Assist with maintenance and calibration (where applicable) of the following equipment:			
11.3.2.1	Interface detectors			
11.3.2.2	Ullage gauging system			
11.3.2.3	Oil discharge monitoring and control system.			
11.3.3	Demonstrate understanding of PV seal unit and top up liquid if required.			

8.7. Function: Cargo operations (Chemical Tankers) - loading and discharging

Ref no	12	Competence: Contribute to safe cargo operations		
Ref no	12.1	Topic: Cargo operations - loading and discharging	<i>Criteria for evaluating competence: Cargo operations with Cadet involvement are carried out in accordance with accepted principles and procedures to ensure safety of operations. Cadet can demonstrate basic knowledge of the basic properties of noxious liquid substances.</i>	
Task number	Task to be performed		STO Sign	Date
12.1.1	Read and discuss the contents of ICS Safety Guide for Chemical Tankers booklet with a senior officer. Refer to this booklet and obtain the safety data sheet for the cargoes being carried on board.			
12.1.2	Demonstrate understanding of the contents of the International Safety Guide for Oil Tankers and Terminals (ISGOTT).			
12.1.3	Read and discuss the contents of ICS Tanker Safety Guide (Chemicals) and International Bulk Chemical (IBC) Code with a senior officer.			
12.1.4	Identify cargo specific fire fighting medium, that would be most effective fire fighting agent (cargo being carried).			
12.1.5	Demonstrate understanding of the basic properties of noxious liquid substances, namely flammable, corrosive, explosive, toxic, reactive, etc.			
12.1.6	Interpret the flammability diagram and demonstrate understanding of the terms "flammability limits", "lower explosion limit" and "upper explosion limit".			
12.1.7	Demonstrate understanding of the effect of inert gas in lowering of the flammable envelope.			
12.1.8	Obtain information and explain the properties and hazards of the chemical cargoes being carried on board.			
12.1.9	Refer to Medical First Aid Guide (MFAG) for treatment following exposure to chemical cargoes and demonstrate understanding of the use of antidotes.			
12.1.10	Demonstrate understanding of the action to be taken in case of a chemical spill (cargo being carried) and take part in chemical spill drill.			
12.1.11	Locate the Procedure and Arrangement manual of the ship			
12.1.12	Assist the Chief Officer for compliance with the Ship/Shore Safety Checklist (Parts A, B & C) before arrival in port and while			



Deck Cadet Training Record Book

For Prospective 3rd Officer

	alongside.		
12.1.13	Accompany shore representative for confirming compliance with Ship/ Shore Safety Check List		
12.1.14	Demonstrate understanding of common terms used in cargo calculations, including API, SG at 60 degrees F, density at 15 degrees C, long tonnes, barrels.		
12.1.15	Assist the officer in charge in calculating cargo quantities.		
12.1.16	Locate and explain use of the cargo record book.		
12.1.17	Demonstrate knowledge of pipeline layout, systems, cargo pump operations and layout and operation of cargo valves.		
12.1.18	Identify the expansion bellows / couplings fitted on the cargo system pipe work.		
12.1.19	Assist with carrying out pre-arrival checks; including		
12.1.19.1	Setting cargo lines prior to loading and discharging		
12.1.19.2	Setting de-ballasting and ballasting lines		
12.1.20	Demonstrate understanding of the contents of Marpol Annex II and category X, Y, Z and OS cargoes.		
12.1.21	Interpret a centrifugal pump performance curve.		
12.1.22	Locate the MSDS of the cargo(s) onboard, study the contents and identify the following		
12.1.22.1	Cargo properties		
12.1.22.2	Cargo hazards		
12.1.22.3	Emergency procedures		
12.1.23	Assist with collection of cargo samples.		
12.1.24	Assist with connecting/ disconnecting ship's manifold to loading arms and flexible hoses and connecting reducers, where necessary.		
12.1.25	Assist with disconnecting ship's manifold with loading arms / flexible hoses and its blanking off		
12.1.26	Assist with draining and clearing of the manifold drip tray after disconnection of cargo arms / hoses.		
12.1.27	Demonstrate understanding of the operation of cargo tank high level alarm system and the overflow control system.		
12.1.28	Accompany the shore representative/surveyor for initial gauging and sampling		
12.1.29	Assist with the setting up of cargo heating system including pre-heating, warming up and drainage of lines		
12.1.30	Assist with draining and final stripping of tanks		

8.8. Function: Cargo operations (Chemical Tankers) - washing of tanks, preparation for next cargo and tank inspection procedures

Ref no	12.2	Topic: Cargo operations - washing of tanks, preparation for next cargo and tank inspection procedures	Criteria for evaluating competence: <i>Safe working practices are observed and explained and appropriate safety and protective equipment is correctly used.</i>
Task number	Task to be performed		STO Sign
12.2.1	Assist in carrying out tank cleaning.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.2.2	Demonstrate understanding with tank cleaning guidelines and company procedures		
12.2.3	Assist with use of additives during tank cleaning.		
12.2.4	Demonstrate understanding of the following operations:		
12.2.4.1	Drying		
12.2.4.2	Padding		
12.2.4.3	Pre wash requirements.		
12.2.5	Demonstrate understanding of the terms “passivation” and “pickling” with respect to stainless steel tanks		
12.2.6	Demonstrate understanding of the degree and method of tank cleaning. Discuss in detail with chief officer with respect to at least three cargo change operations		
12.2.7	Identify the protective and safety equipment required by IBC code.		
12.2.8	Accompany chief officer into a cargo tank for inspection.		
12.2.9	Assist in preparing tank inspection report.		
12.2.10	Demonstrate understanding of the use of emergency escape sets.		
12.2.11	Demonstrate understanding of the emergency pumping arrangement.		
12.2.12	Demonstrate understanding of the use and limitations of filter type respiratory equipment.		

8.9. Function: Cargo operations (Chemical Tankers) - inspection/ testing of cargo related equipment

Ref no	12.3	Topic: Cargo operations – inspection/ testing of cargo related equipment	<i>Criteria for evaluating competence: Operations and inspections are conducted in accordance with accepted principles and manufacturer’s instructions</i>	
Task number	Task to be performed		STO Sign	Date
12.3.1	Test emergency shut-down of cargo pumps and associated valves.			
12.3.2	Test the emergency shut down system together with Chief Officer.			
12.3.3	Locate the various locations from where ESD can be operated.			
12.3.4	Show familiarization with "wall wash test" procedure.			
12.3.5	Check and confirm that emergency showers are operational.			

8.10. Function: Cargo operations (Gas Tankers)

Ref no	12.4	Topic: Cargo operations	<i>Criteria for evaluating competence: Cargo operations are carried out in accordance with accepted principles and procedures to ensure safety of operations</i>	
Task number	Task to be performed		STO Sign	Date
12.4.1	Basic knowledge of liquefied gas tankers: types of liquefied gas tankers; general arrangement and construction.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.4.2.	Basic knowledge of cargo operations:		
12.4.2.1	piping systems and valves		
12.4.2.2	cargo handling equipment		
12.4.2.3	loading, unloading and care in transit		
12.4.2.4	emergency shutdown (ESD) system		
12.4.2.5	tank cleaning, purging, gas-freeing and inerting		
12.4.3.	Basic knowledge of the physical properties of liquefied gases, including:		
12.4.3.1	properties and characteristics		
12.4.3.2	pressure and temperature, including vapour pressure/temperature relationship		
12.4.3.3	types of electrostatic charge generation		
12.4.3.4	chemical symbols		
12.4.4.	Basic knowledge of the hazards associated with tanker operations, including:		
12.4.4.1	health hazards		
12.4.4.2	environmental hazards		
12.4.4.3	reactivity hazards		
12.4.4.4	corrosion hazards		
12.4.4.5	explosion and flammability hazards		
12.4.4.6	sources of ignition		
12.4.4.7	electrostatic hazards		
12.4.4.8	toxicity hazards		
12.4.4.9	vapour leaks and clouds		
12.4.4.10	extremely low temperatures		
12.4.4.11	pressure hazards		
12.4.5.	Basic knowledge of hazard controls:		
12.4.5.1	inerting, drying and monitoring techniques		
12.4.5.2	anti-static measures		
12.4.5.3	ventilation		
12.4.5.4	segregation		
12.4.5.5	cargo inhibition		
12.4.5.6	importance of cargo compatibility		
12.4.5.7	atmospheric control		
12.4.5.8	gas testing		
12.4.6.	Understanding of information on a Material Safety Data Sheet (MSDS)		
12.4.7.	Function and proper use of gas-measuring instruments and simi-		



Deck Cadet Training Record Book

For Prospective 3rd Officer

	lar equipment		
12.4.8.	Proper use of safety equipment and protective devices, including:		
12.4.8.1	breathing apparatus and tank evacuating equipment		
12.4.8.2	protective clothing and equipment		
12.4.8.3	resuscitators		
12.4.8.4	rescue and escape equipment		
12.4.9.	Basic knowledge of safe working practices and procedures in accordance with legislation and industry guidelines and personal shipboard safety relevant to liquefied gas tankers, including:		
12.4.9.1	precautions to be taken when entering enclosed spaces		
12.4.9.2	precautions to be taken before and during repair and maintenance work		
12.4.9.3	safety measures for hot and cold work		
12.4.9.4	electrical safety		
12.4.9.5	ship/shore safety checklist		
12.4.10.	Basic knowledge of first aid with reference to a Material Safety Data Sheet (MSDS)		
12.4.11.	Tanker fire organization and action to be taken		
12.4.12.	Special hazards associated with cargo handling and transportation of liquefied gases in bulk		
12.4.13.	Fire-fighting agents used to extinguish gas fires		
12.4.14.	Fixed fire-fighting foam system operations		
12.4.15.	Portable fire-fighting foam operations		
12.4.16.	Fixed dry chemical system operations		
12.4.17.	Basic knowledge of spill containment in relation to fire-fighting operations		
12.4.18.	Basic knowledge of emergency procedures, including emergency shutdown		
12.4.19.	Basic knowledge of the effects of pollution on human and marine life		
12.4.20.	Basic knowledge of shipboard procedures to prevent pollution		
12.4.21.	Basic knowledge of measures to be taken in the event of spillage, including the need to:		
12.4.21.1	report relevant information to the responsible persons		
12.4.21.2	assist in implementing shipboard spill-containment procedures		
12.4.21.3	prevent brittle fracture		



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 9. SHIPBOARD OPERATIONS (POLAR WATER / WINTER CONDITIONS)

Ref no	13	Competence: Contribute to the safe operation of ships operating in polar waters and winter conditions		
N ^o Ref no	13.1	Topic: Shipboard operations (polar waters/ winter conditions)	Criteria for evaluating competence: <i>Safe working practices and procedures, and Cold weather precautions are observed and appropriate safety and protective equipment for colder climates is correctly used.</i>	
Task number	Task to be performed		STO Sign	Date
13.1.1	Assist in draining the fire lines, external fresh water lines to the main deck and bridge window wash water line			
13.1.2	Assist in circulating the ballast and slacking down the ballast tanks.			
13.1.3	Demonstrate understanding of the personal protective equipment to be worn and precautions to be carried out whilst working on deck in winter conditions.			
13.1.4	Demonstrate understanding of the cold weather precautions required for hydraulic machinery for mooring winches and hatch covers.			
13.1.5	Interpret Ice charts and demonstrate understanding of the terminology used for ice identification (type / thickness / concentration).			
13.1.6	Assist in switching on the space heaters in forward stores and under-deck spaces (e.g. bow thruster room, emergency fire pump room / steering flat / emergency generator room / hydraulic pump rooms)			
13.1.7	Clear the mooring areas, safety walkways, pilot access points and hatch covers of ice and snow regularly. Explain the importance of sprinkling rock salt in these areas.			
13.1.8	Assist in taking the cold weather precautions with regards to bridge equipment (radars, clear-view screens, whistles, horns and bridge windows).			
13.1.9	Pour antifreeze liquid into sounding pipes of ballast tanks.			
13.1.10	Demonstrate understanding of the hazards associated with freezing sprays and ice accretion.			
13.1.11	Demonstrate understanding of the hazards associated with terrestrial navigational aids in polar waters.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 10. CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD

10.1. Function: Bunkering procedures

Ref no.	14	Competence: Ensure compliance with pollution prevention requirements		
Ref no.	14.1	Topic: Bunkering procedures	<i>Criteria for evaluating competence: Procedures for carrying out and monitoring bunker operations and ensuring compliance with MARPOL are fully understood.</i>	
Task number	Task to be performed		STO Sign	Date
14.1.1	Plug deck scuppers effectively			
14.1.2	Participate in bunkering operations and assist in taking fuel oil tank soundings.			
14.1.3	Locate and check inventory of all pollution control equipment at designated location(s) and assess condition.			
14.1.4	Demonstrate understanding of the ship's bunkering procedures and various checklists involved with bunkering operations			
14.1.5	Participate in pre-bunkering meeting.			
14.1.6	Assist in connection and disconnection of bunker hoses.			
14.1.7	Under supervision, operate and test portable (Wilden) pump.			
14.1.8	Demonstrate understanding of the drip sampling procedure.			
14.1.9	Demonstrate understanding of the emergency shut down procedure during bunkering.			
14.1.10	Participate and understudy the team leaders in an emergency response exercise for controlling spillage of oil (pipeline failure, equipment failure, structural failure, stranding).			
14.1.11	Participate and understudy the team leaders in a drill for clean-up of hazardous cargo spillage.			
14.1.12	Participate in a bunker line pressure testing operation and state how frequently is it required.			

10.2. Function: Pollution prevention regulations

Ref no.	14.2	Topic: Pollution prevention regulations	<i>Criteria for evaluating competence: Pollution prevention regulations are fully understood and complied with at all times.</i>	
Task number	Task to be performed		STO Sign	Date
14.2.1	Demonstrate understanding of vessel's operational requirements under the International Convention for the Prevention of Pollution from Ships (MARPOL) annexes to prevent pollution			
14.2.2	Locate vessel's garbage management plan and demonstrate understanding of contents, color coding of receptacles, etc			
14.2.3	Demonstrate understanding of the regulations for segregation of garbage and disposal of garbage at sea (special and non-special areas) in compliance with MARPOL.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

14.2.4	Locate vessel's garbage record book and make entries under supervision.		
14.2.5	Demonstrate understanding of the entries made in the oil record book.		
14.2.6	Identify the special areas under Marpol Annex I and Annex V.		
14.2.7	Read and discuss the criteria for disposal of batteries, tube lights, and expired medicines with STO.		
14.2.8	Read and discuss the criteria for disposal of cargo residues with STO.		
14.2.9	Identify the Emission Control Areas under Marpol Annex VI.		
14.2.10	Attend in the engine room when oily water separator is in operation and demonstrate understanding of its operation.		
14.2.11	Read and discuss the regulations governing sewage disposal with STO.		
14.2.12	Practice the use of the International Maritime Solid Bulk Cargoes Code (IMSBC) for determining emergency procedures for cargo being carried, if applicable.		

10.3. Function: Bilge and ballast operations

Ref no.	14.3	Topic: Bilge and ballast operations	Criteria for evaluating competence: <i>Bilge and ballast operations are carried out in accordance with MARPOL and local regulations</i>	
Task number	Task to be performed		STO Sign	Date
14.3.1	Assist deck officers carry out ballasting and de-ballasting operations.			
14.3.2	Set lines for ballasting and de-ballasting operations			
14.3.3	Assist in pumping out chain locker and forward stores			
14.3.4	Set lines for pumping out the bilges.			

10.4. Function: Ship stability (including understanding of the fundamentals of watertight integrity)

Ref no.	15	Competence: Maintain seaworthiness of the ship		
Ref no.	15.1	Topic: Ship stability (including understanding of the fundamentals of watertight integrity)	Criteria for evaluating competence: <i>Demonstrates that the stability conditions comply with the IMO intact stability criteria under all conditions of loading and actions to ensure and maintain the watertight integrity of the ship are in accordance with accepted practice.</i>	
Task number	Task to be performed		STO Sign	Date
15.1.1	Refer to the stability booklet and determine which tanks cause relatively more free surface effect if kept slack.			
15.1.2	Check the stability booklet for any specific loading limitations.			
15.1.3	Assist with hose testing (weather tightness) of hatches.			
15.1.4	Assist in checking weather tightness of watertight doors			



Deck Cadet Training Record Book

For Prospective 3rd Officer

15.1.5	Assist in checking all load line related items and maintain good condition at all times, including - all closing appliances, air vents, ventilators, load line marks, etc. (refer condition of freeboard assignment form).		
15.1.6	Maintain the watertight doors, ports and hatches. Assist in replacing rubber packing as required.		

10.5. Function: Ship construction

Ref no.	15.2	Topic: Ship construction	<i>Criteria for evaluating competence:</i> The construction of the principal structural members of a ship is understood and the proper names for the various parts are stated.	
Task number	Task to be performed		STO Sign	Date
15.2.1	Identify various parts of the principal structural members of a ship.			
15.2.2	Under supervision, inspect the doubler / striker plate under the sounding pipe and understand its purpose			
15.2.3	Under supervision, open and inspect an air pipe			

10.6. Function: Securing vessel for sea.

Ref no.	15.3	Topic: Securing vessel for sea.	<i>Criteria for evaluating competence:</i> Actions to secure vessel for sea are in accordance with the accepted practices. Company procedures for securing the vessel for sea are understood.	
Task number	Task to be performed		STO Sign	Date
15.3.1	Demonstrate ability to rig safety lines and guard rails.			
15.3.2	Check and confirm that all equipment in stores, deck and mooring area are properly stowed and secured and that all water and weather tight openings are closed tight prior to departure			
15.3.3	Assist the crew in securing gangway.			
15.3.4	Assist in checking of deck cargo lashings prior to departure.			

10.7. Function: Seamanship practices

Ref no.	15.4	Topic: Seamanship practices	<i>Criteria for evaluating competence:</i> Actions to secure vessel for sea are in accordance with the accepted practices. Company procedures for securing the vessel for sea are understood.	
Task number	Task to be performed		STO Sign	Date
15.4.1	Make various knots, bends, hitches and whippings.			
15.4.2	Locate all the sounding pipes, filling pipes and air pipes on board and draw up a location plan			
15.4.3	Observe and record the daily soundings of tanks, bilges and other compartments			
15.4.4	Use calibration/sounding tables for determining ballast tank quantities after applying various corrections.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

15.4.5	Assist in lubrication of deck equipment and understand lubrication techniques.		
15.4.6	Breakout new coils of ropes and wires. Correctly stow wires and ropes with due regard to their preservation		
15.4.7	Assist in receiving fresh water from ashore and from barges		
15.4.8	Rig clusters and portable lights.		
15.4.9	Assist with maintenance of stays and aerials.		
15.4.10	Demonstrate the use of various portable gas analyzers on board including:		
15.4.10.1	Oxygen analyzer		
15.4.10.2	Multi gas detector		
15.4.10.3	Toxic gas detector		
15.4.10.4	Personal gas monitors		
15.4.10.5	Explosimeters		
15.4.11	Identify the span gas required for calibrating each portable analyzer on board. Assist in calibrating various portable analyzers and maintain records		
15.4.12	Keep a deck and gangway watch and tend mooring lines and gangway		
15.4.13	Rig and use stages under supervision		
15.4.14	Rig and use bosun's chair under supervision.		
15.4.15	Assist crew with splicing of ropes and wires.		
15.4.16	Maintain fairleads.		
15.4.17	Receive, check, stow and secure ship's stores		
15.4.18	Assist with rigging of pilot ladder and combination ladders, including pilot hoist (if fitted). Monitor Pilot's safety when embarking and disembarking		
15.4.19	Assist crew in checking condition of pilot ladder ropes, steps and securing arrangements.		
15.4.20	Assist crew in rigging accommodation ladder, gangway and gangway net.		
15.4.21	Prepare steel plates and other surfaces for protective coating		
15.4.22	Demonstrate various painting techniques and correct procedure for mixing of paints		
15.4.23	Identify and understand use of purging points provided on hydraulic lines and machinery.		
15.4.24	Locate the Material Safety Data Sheets (MSDS) for the paints onboard and demonstrate awareness of action to be taken in an emergency		



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.8. Function: Operation and maintenance of fire fighting appliances (FFA)

Ref no.	16	Competence: Prevent, control and fight fires on board		
Ref no.	16.1	Topic: Operation and maintenance of fire fighting appliances (FFA)	Criteria for evaluating competence: The Cadet is able to demonstrate the operation, testing and maintenance of FFA as per Fire Maintenance Manual.	
Task number	Task to be performed		STO Sign	Date
16.1.1	Read and discuss the contents of the FFA Training Manual on board.			
16.1.2	Locate the fire control plan and identify equipment included in the plan.			
16.1.3	Demonstrate use and donning of self contained breathing apparatus (SCBA) set after carrying out all required checks. Identify different parts of a SCBA set.			
16.1.4	Demonstrate use of safety harness and line including the signals used			
16.1.5	Under supervision, operate main and emergency fire pump			
16.1.6	Recognize the difference between a SCBA set and an emergency escape breathing device (EEBD).			
16.1.8	Demonstrate understanding of operation of fixed fire detection and alarm system			
16.1.9	Assist the safety officer in the inspection and maintenance, and understand the use of			
16.1.9.1	Portable foam extinguisher			
16.1.9.2	Portable CO ₂ extinguisher			
16.1.9.3	Portable dry powder extinguisher			
16.1.9.4	Portable water extinguisher			
16.1.11	Assist in taking inventory of the safety locker			
16.1.12	Take inventory of all the emergency equipment in the emergency headquarters (fire station room).			
16.1.13	Assist with re-charging of portable extinguishers			
16.1.14	Demonstrate understanding of the safety precautions and procedures required prior to operating the fixed firefighting system.			
16.1.15	Use a breathing apparatus record / control board during a fire drill			
16.1.16	Locate all fire line isolation valves on board and understand their use			
16.1.17	Assist in starting and operating emergency generator.			
16.1.18	Assist the safety officer with the testing of the following FFA, where fitted:			
16.1.18.1	Fire detection and alarm systems			
16.1.18.2	Fixed CO ₂ /DCP extinguishing system			
16.1.18.3	Fixed steam extinguishing system			
16.1.18.4	Fixed automatic sprinkler system			
16.1.18.5	Fixed fire fighting system in paint room			



Deck Cadet Training Record Book

For Prospective 3rd Officer

16.1.18.6	Fixed foam extinguishing system		
16.1.18.7	Fire flaps and dampers		
16.1.18.8	Foam applicators		
16.1.18.9	Automatic and manual fire doors		
16.1.18.10	Emergency shut off valves, pump stops and main engine stops		
16.1.19	Under supervision, operate the breathing apparatus (BA) air compressor and assist with charging of BA air bottles.		

10.9. Function: Fire fighting

Ref no.	16.2	Topic: Fire fighting	<i>Criteria for evaluating competence: The type and scale of the problem is promptly identified and initial actions conform to the emergency procedure and contingency plans for the ship. Ability to act in an emergency is demonstrated.</i>
Task number	Task to be performed		STO Sign
16.2.1	Identify the classes of fire and components of the fire triangle.		
16.2.2	Identify and minimize fire hazards. Demonstrate understanding of the actions to be taken in the event of fire, including fires involving oil systems.		
16.2.3	Participate in a fire drill at sea and in port		
16.2.4	Lead a fire party during a drill		
16.2.5	Perform fire rounds		
16.2.6	Participate and understudy the team leaders in a search and rescue drill for an enclosed space		

10.10. Function: Life saving appliances (LSA)

Ref no.	17	Competence: Operate life saving appliances	
Ref no.	17.1	Topic: Life saving appliances (LSA)	<i>Criteria for evaluating competence: Actions in responding to abandon ship and survival situations are appropriate to the prevailing circumstances and conditions and comply with accepted safety practices and standards. The Cadet is able to demonstrate knowledge of the operation of survival craft and rescue boats, the launching appliances and arrangements, and the equipment, including radio life-saving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids.</i>
Task number	Task to be performed		STO Sign
17.1.1	Under supervision, start the lifeboat and rescue boat engines		
17.1.2	Demonstrate the procedures for testing the operation of:		
17.1.2.1	Search and rescue transponder		
17.1.2.2	Hand-held VHF transceivers		



Deck Cadet Training Record Book

For Prospective 3rd Officer

17.1.2.3	Emergency Position Indicating Radio Beacon		
17.1.3	Locate the life saving signals table displayed and familiarize with its use.		
17.1.4	Prepare an emergency muster list.		
17.1.5	Locate the SOLAS training manual on board		
17.1.6	Locate the lifeboat launching instructions posted at the lifeboat deck and demonstrate understanding of launching procedures and procedures of abandoning a ship.		
17.1.7	Demonstrate understanding of the procedure for launching (including liferaft stowed away from accommodation area) and inflating liferafts.		
17.1.8	Identify the permanent markings required on the survival craft (lifeboat, rescue boat and liferaft).		
17.1.9	Assist with weekly 'moving' of lifeboats and record same		
17.1.10	Assist with monthly 'turning out' of lifeboats and record same.		
17.1.11	Demonstrate ability to use and maintain LSA equipment, including		
17.1.11.1	Life jackets		
17.1.11.2	Immersion suits, thermal protective aids		
17.1.11.3	Lifebuoys, self igniting lights, man overboard markers		
17.1.12	Locate and demonstrate understanding of the operation of all pyrotechnics carried on board and in lifeboats, and the procedure for disposal of out of date pyrotechnics		
17.1.13	Assist the crew with the maintenance of survival craft and equipment, including		
17.1.13.1	Lifeboats and rescue boats		
17.1.13.2	Lifeboat equipment and provisions		
17.1.13.3	Launching davits and gear		
17.1.13.4	Lifeboat falls		
17.1.14	Assist crew in preparing and lowering of lifeboats		
17.1.15	Check the statutory equipment required to be carried in a survival craft (lifeboat, rescue boat, liferaft). Recognize minimum food and water requirements for survival craft occupants		
17.1.16	Participate in routine lowering and manoeuvring of a lifeboat, clear the ship and cox the boat away from the ship under supervision		
17.1.17	Demonstrate understanding of the procedure for recovering a rescue boat in rough weather.		
17.1.18	Check the securing arrangements of a liferaft (including liferaft stowed away from accommodation) and recognize the function of the hydrostatic release unit (HRU) and weak link.		
17.1.19	Check lifesaving equipment as per planned maintenance system and maintain readiness at all times		
17.1.20	Demonstrate understanding of the regulations concerning annual and other servicing and testing requirements of liferafts, lifeboats and launching and recovery arrangements.		
17.1.21	Assist engineers with the routine maintenance of a lifeboat and rescue boat engine		
17.1.22	Assist the crew with inspection and overhaul of a davit winch..		



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.11. Function: Practical application of medical guides and advice by radio and medical equipment on board

Ref no.	18	Competence: Apply medical first aid on board ship		
Ref no.	18.1	Topic: Practical application of medical guides and advice by radio and medical equipment on board.	Criteria for evaluating competence: The Cadet is able to demonstrate the practical application of medical guides and advice by radio and to locate medical equipment on board.	
Task number	Task to be performed		STO Sign	Date
18.1.1	Locate and read the "International Medical Guide for Ships".			
18.1.2	Locate all first aid boxes and check that contents are in order.			
18.1.3	Identify the information required and procedures for requesting radio medical advice.			
18.1.4	Use resuscitation equipment.			
18.1.5	Access the medical locker and locate various medicines and equipment.			
18.1.6	Assist in taking inventory of medical locker, including narcotics in Master's custody.			

10.12. Function: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia

Ref no.	18.2	Topic: Basic understanding of first aid principles and treatment for burns, scalds, fractures, shock, heat stroke and hypothermia	Criteria for evaluating competence: Identification of probable cause, nature and extent of injuries or conditions is prompt and treatment minimizes immediate threat to life. The Cadet is able to demonstrate correct procedures for treating burns, scalds, fractures, shock, heat stroke and hypothermia.	
Task number	Task to be performed		STO Sign	Date
18.2.1	Participate in a first aid drill.			
18.2.2	Demonstrate knowledge of first aid procedures for arresting the bleeding of a casualty, cardiopulmonary resuscitation, and treatment of suffocation and drowning.			
18.2.3	Demonstrate procedures for treatment of burns and scalds.			
18.2.4	Demonstrate procedures for treatment of minor fractures.			
18.2.5	Demonstrate handling a casualty in shock.			
18.2.6	Demonstrate procedures for dealing with a casualty from electric shock.			
18.2.7	Demonstrate procedures for dealing with heat stroke.			
18.2.8	Demonstrate procedures for treating casualty with hypothermia including placing the casualty in recovery position.			



Deck Cadet Training Record Book

For Prospective 3rd Officer

10.13. Function: Familiarize with various statutory regulations and requirements

Ref no.	19	Competence: Monitor compliance with legislative requirements		
Ref no.	19.1	Topic: Familiarize with various statutory regulations and requirements	Criteria for evaluating competence: <i>Legislative requirements relating to safety of life at sea and protection of the marine environment are correctly identified. The Cadet is able to demonstrate basic working knowledge of the relevant IMO conventions concerning safety of life at sea and protection of the marine environment.</i>	
Task number	Task to be performed		STO Sign	Date
19.1.1	Read and discuss the contents of SOLAS with STO			
19.1.2	Identify the Designated Person Ashore (DPA) for your vessel and demonstrate understanding of the DPA's role			
19.1.3	Identify the common port state control detainable deficiencies			
19.1.4	Check the certificates and manuals issued under SOLAS, MARPOL, International Load Line, STCW Convention and other regulations.			
19.1.5	Locate the ballast water management plan on board and demonstrate understanding of its contents			
19.1.6	Check ballast water exchange requirements and identify the methods of carrying out a ballast water exchange.			
19.1.7	Recognize the importance of keeping records for all events.			
19.1.8	Read the objectives of ISM Code and discuss with STO.			
19.1.9	Check the contents of the ship's articles of agreement.			
19.1.10	Assist in making official log book entries.			
19.1.11	Demonstrate understanding of the STCW 2010 / ILO rest hour requirements with respect to seafarers and the importance of maintaining proper rest hour records.			

10.14. Function: Safety of personnel and ship

Ref no.	20	Competence: Contribute to the safety of personnel and ship		
Ref no.	20.1	Topic: Safety of personnel and ship	Criteria for evaluating competence: <i>Procedures and safe working practices designed to safeguard personnel and the ship are observed at all times. The Cadet is able to demonstrate knowledge of safe working practices.</i>	
Task number	Task to be performed		STO Sign	Date
20.1.1	Attend tool box meetings prior to carrying out various jobs			
20.1.2	Demonstrate understanding of the use of various checklists (wherever applicable) and precautions required for various critical jobs such as:			
20.1.2.1	Entry into enclosed spaces			
20.1.2.2	Working aloft			



Deck Cadet Training Record Book

For Prospective 3rd Officer

20.1.2.3	Working overside		
20.1.2.4	Carrying out hot work		
20.1.2.5	Using power tools		
20.1.2.6	Manual lifting and carrying.		
20.1.3	Identify the personal protection equipment (PPE) available on board and its use for various jobs.		
20.1.4	Accompany the safety officer whilst carrying out monthly safety inspection rounds.		
20.1.5	Identify and discuss with the Chief Officer the hazards involved in carrying out various jobs and control measures required to be put in place prior carrying out any job, including use of proper PPE		
20.1.6	Assist in carrying out a formal risk assessment for a critical job and understand the importance of risk assessment before carrying out a job.		
20.1.7	Demonstrate understanding of company's accident investigation and reporting procedure.		
20.1.8	Identify and analyze three near misses occurring during the time on board and discuss results with the chief officer.		

10.15. Function: Ship security

Ref no.	21	Competence: Contribute to the enhancement of maritime security through heightened awareness	
Ref no.	21.1	Topic: Ship security	Criteria for evaluating competence: <i>The Cadet is able to demonstrate basic working knowledge of maritime security terms and procedures. Requirements relating to enhanced maritime security are correctly identified and complied.</i>
Task number	Task to be performed		STO Sign
21.1.1	Recognize the three security levels		
21.1.2	Understudy the Ship Security Officer with regards to his duties and responsibilities		
21.1.3	Identify the Company Security Officer and his contact details. Explain his duties and responsibilities		
21.1.4	Demonstrate proper procedures whilst maintaining a security watch at sea and in port		
21.1.5	Demonstrate understanding of the duties and procedures to be followed at all the three security levels for access control, cargo, stores, etc. as per the Ship's Security Plan.		
21.1.6	Locate all the restricted areas on board your vessel.		
21.1.7	Participate in carrying out a thorough search for stowaway, narcotics, explosives or other contraband items. Use company's vessel search checklist		
21.1.8	Demonstrate an understanding of the use and function of Ship Security Alert System (SSAS).		
21.1.9	Identify the circumstances when Declaration of Security (DOS) is carried out		
21.1.10	Understudy team leaders in various security drills		



Deck Cadet Training Record Book

For Prospective 3rd Officer

SECTION 11. STEERING CERTIFICATE

It is important that you learn to steer the ship at sea and understand how to execute helm orders correctly. You should take turns at the wheel by day, by night and when entering and leaving port. Ensure that you keep a proper record of your steering experience by asking the officer in charge to complete the steering record. When you have completed the turns at the wheel, ask the master to sign the Cadet's Steering Certificate.

Competence: Steer the ship and also comply with helm orders in the English language		
Topic: Steering the ship	<i>Criteria for evaluating competence: A steady course is steered within acceptable limits, having regard to the area of navigation and prevailing sea state. Alterations of course are smooth and controlled. Communications are clear and concise at all times and orders are acknowledged in a seamanlike manner.</i>	
Task to be performed	STO Sign	Date
Comply correctly with helm orders in English language.		
Demonstrate correct procedure for handing/taking over the wheel.		
Demonstrate correct change over procedures from auto-pilot to hand steering and vice versa		
Steer the ship by magnetic compass.		
Steer the ship for periods totalling for at least the duration mentioned below, excluding the period of instruction.		
Steer by compass (day): 10 hours.		
Steer by compass (night): 10 hours.		
Steer by sight (without the aid of a compass): 5 hours.		
Steer while entering and leaving port: 5 hours.		
Steer the ship whilst entering and leaving port.		
Steer the ship in canal and river transits.		



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.1. Cadet's Steering Record (By compass (day))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By compass (day)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.2. Cadet's Steering Record (By compass (night))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By compass (night)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.3. Cadet's Steering Record (By sight (without aid of a compass))

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
By sight (without aid of a com- pass)									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.4. Cadet's Steering Record (While entering and leaving port)

Steering	Voyage		Steered			Total Hours	Remarks	OOW Signature	
	From	To	Date	Duration					
				From	To				
While entering and leaving port									
	Grand Total:								



Deck Cadet Training Record Book

For Prospective 3rd Officer

11.5. Steering Certificate

To be issued by the Master once all Steering Training is completed and the cadet is considered proficient.

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

From _____ To _____.

During this period of structured shipboard training, the Cadet took turns at steering the ship (apart from the periods of instruction) as given below:

The number of bridge watches kept is as follows:

Steering	Total Hours
By compass during day	
By compass during night	
By sight (without compass)	
While entering and leaving port	

Master's signature & ship's stamp

Master's Name

“ _____ ” (Date)



Deck Cadet Training Record Book

For Prospective 3rd Officer

12.3. Bridge Watchkeeping Certificate

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

from _____ to _____

During this period of structured shipboard training, the Cadet has been assisting the bridge watchkeepers in watchkeeping duties in accordance with STCW 2010 Table A-II/1.

The number of bridge watches kept is as follows:

Bridge watches	Total number of watches	Total hours
At sea		
At anchor		
During arrival and departure		

Master's signature

Ship's stamp

12.4. Port Watchkeeping Certificate

Name of Cadet:

Date of birth:

Passport number:

This is to certify that the above named Cadet has served on board the ship:

from _____ to _____

The number of port watches kept is as follows:

Port watches	Total number of watches	Total hours
At Anchor		
Alongside		

Master's signature

Ship's stamp



SECTION 13. PROJECT WORK

The purpose of project work is to ensure that the Cadet becomes thoroughly acquainted with the ship and operations, especially with the bridge, deck and cargo operations. A project file needs to be maintained. The project file to have an Index listing out the Projects done along with the STO's signature and stamp in the bottom of the index page, prior sign off from each ship.

Projects are to be ship specific with respect to the type of equipment or the nature of the operations carried out. Each project is to be accompanied by appropriate diagrams, sketches, photographs and checklists. These projects are structured assessment activity tasks where the cadet gathers all the relevant information himself during the time allocated by the STO. The aim is to check whether the cadet is able to use all the resources available on board and demonstrate written proficiency in the concerned topic. The pre-sea institute must check that the written information is worded appropriately and by verbal questioning confirm the understanding of the cadet.

13.1. PROJECTS: NAVIGATION

Part - 1

Draw a plan showing the layout of the Navigation Bridge and equipment.

Draw the radar shadow/blind sectors and describe the procedure for testing the performance of the radar/ARPA. Observe and record the performance monitor readings and compare them with the original readings.

Describe the procedure for correction of navigational charts and publications- ALRS, ALL, Sailing Directions. Correct these publications on at least one occasion under the supervision of the officer concerned.

Describe activities on the bridge for arrival and departure.

Part - 2

Plan a passage between any two ports under the supervision of the officer concerned, including selection of charts, plotting of courses on the charts, and use of publications. Explain in detail the four stages of a voyage plan; appraisal, planning, execution and monitoring.

Describe the operation and set-up (manual and automatic) of the bridge navigational watch alarm system.

Prepare AMVER messages "Arrival Port", "Departure Port", "At Sea Noon". Attach a copy of each type of AMVER message sent.

13.2. PROJECTS: CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD

Part - 1

Draw plan views of the decks showing all LSA and FFA with the proper IMO symbols and also the sounding pipes with their color coding.

Locate the sounding pipes and air pipes of all the tanks on the ship, including ballast tanks,



Deck Cadet Training Record Book

For Prospective 3rd Officer

bunker tanks, cofferdams and peak tanks. Also locate the sounding pipes of hold bilges. Draw a color coded plan indicating the location of all these items.

Draw the ventilation arrangement on board and state clearly the natural and forced types of ventilators.

Draw the bilge and ballast piping plan showing the outline of pumps, eductor, ballast, tank, non-return and cross-over valves in the system. What sort of bilge pumping arrangement is used? Write down the procedure of how you would pressure test the bilge line and the non-return valve.

List all the safety precautions to be taken when working aloft and when working overside.

Describe the precautions to be taken when entering a double bottom ballast tank for inspection.

State how many mooring ropes and wires are on board. Describe where they are kept, their sizes and lengths, characteristics, strengths, advantages and disadvantages and whether and where any spares are carried. Describe the precautions you would take to prevent damage to a coil of polypropylene rope.

Draw a figure to show the mooring arrangements at your last port of call and explain why such configuration was used. What does the mooring plan of the ship indicate? Sketch the snap back zones on the forecastle mooring drawing.

Draw a block diagram of the steering system and explain the operation of the emergency steering.

Draw the outline of the fixed fire-fighting system and explain its operation.

Observe the loadline marks, make a detailed sketch of these marks and explain the function of each mark

Part – 2

Prepare a monthly report on the maintenance carried out on the LSA and FFA.

List the procedures and checks to be carried out before and after flooding in dry-dock. Draw a plan view of all bottom plugs.

Make a table of the various areas of the vessel, with the type of paint coating used (including primer, number of coats, type of surface preparation most suited) - as per the paint scheme provided by the paint manufacturer.

13.3. ADDITIONAL PROJECTS FOR OIL AND CHEMICAL TANKERS

Complete projects explaining the following topics, ensuring each project is accompanied by appropriate diagrams, sketches, photographs and checklists. Projects to be ship specific with respect to the type of equipment and the nature of the operations carried out on board the ship



Deck Cadet Training Record Book

For Prospective 3rd Officer

Draw the pipeline layout for an inert gas system from engine room to deck showing all valves and safety trips / alarms including deck seal and PV breaker. Explain with a diagram the working of a deck seal unit.

Draw a plan of the pump room and associated pipelines.

Draw a cross-section of the pressure vacuum valve and describe the operating principle.

Compile process sheets for deballasting and loading cargo.

Compile process sheets for discharging cargo, ballasting, crude oil washing, cargo heating and stripping / educting.

Describe the operation of the Framo-pump system (if provided).

Compile process sheets for inerting, purging and aeration.

Compile process sheets for tank cleaning, including for change of grades, and for gas freeing for man-entry.

Draw the lay-out of the emergency shut down (ESD) system (if provided), including activation locations.

- l.* state when the ESD should be operated and list the circumstances when the ESD is to be activated manually
- m.* list the equipment, including valves, which trip on activation of the ESD
- n.* explain in writing, the testing procedure of ESD and record manifold valve closure timings

Gas measuring equipment – describe the principles, operation procedures and calibration of:

- o.* oxygen analyzer
- p.* explosimeter – combustible gas monitor
- q.* tank scope - toxic gas monitor - chemical reagent tubes - explain how a reading is taken
- r.* fixed gas detector system.

Oil discharge monitoring equipment – describe / draw:

- s.* pipeline diagram from cargo tanks to overboard discharges
- t.* oil-water interface – principle of operation
- u.* operating procedures
- v.* alarms, auto-shut off (activation limits), working of recording system.