



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS  
**MARITIME INDUSTRY AUTHORITY**



**MARINA Circular No. 2014 - 01**

**ANNEX III**

**UPDATING COURSE FOR  
MANAGEMENT LEVEL MARINE DECK  
OFFICERS**

**(Masters and Chief Mates)**

**Certified Under STCW '78 Convention  
As Amended in 1995**

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## **FOREWORD**

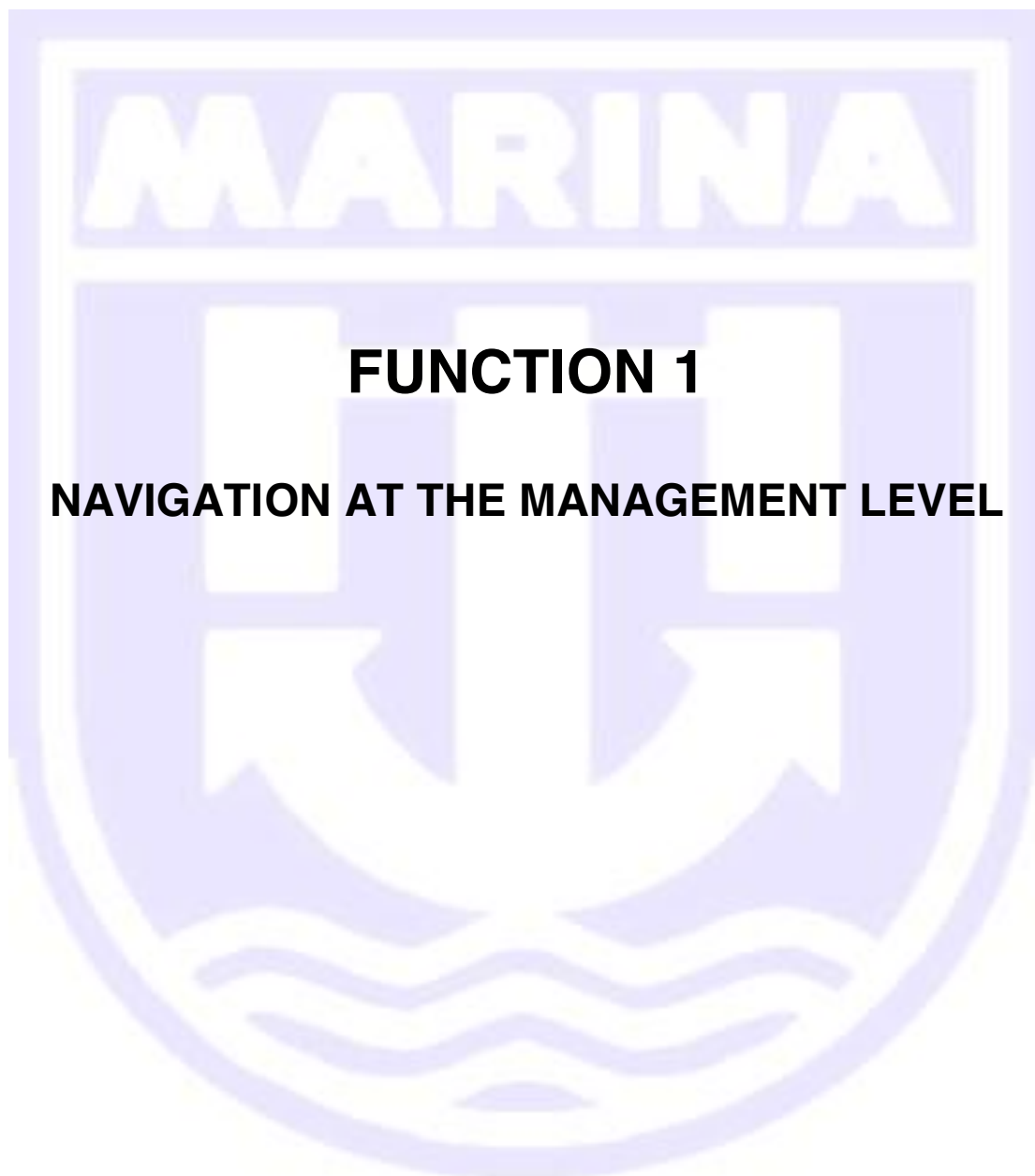
This “Updating Course for Management Level Marine Deck Officers”, who were certificated under the STCW '78 Convention, as amended in 1995, was developed in order for the said merchant marine officers to update themselves and comply with the new requirements under Regulation II/2 of the 2010 Manila Amendments to the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Convention), without need for re-taking the whole management level course.

The curriculum was designed based on the gap analysis of the minimum standards of competence provided in Table A-II/2 of STCW '78, as amended in 1995 vis-à-vis Table A-II/2 of the 2010 STCW Manila Amendments and guided by the revised IMO Model Course 7.01 (Masters and Chief Mates), which was validated during the 44th session of the IMO’s Sub-Committee on Standards of Training and Watchkeeping (STW 44) held from 29 April to 3 May 2013.

The specific gaps identified were referred to the revised IMO Model Course 7.01 and the topics relevant to the said gaps now comprise the curriculum for this updating course.

Upon completion of this updating course and passing the assessment thereof, successful management level Deck Officers shall be qualified to upgrade/renew their existing Certificates of Competency (COC) in accordance with Regulation II/2 of the 2010 STCW Manila Amendments.

**MAXIMO Q MEJIA JR, PhD**  
Administrator



## FUNCTION CONTENTS

### Function 1 (F1): Navigation at the Management Level

#### Part A: Course Framework

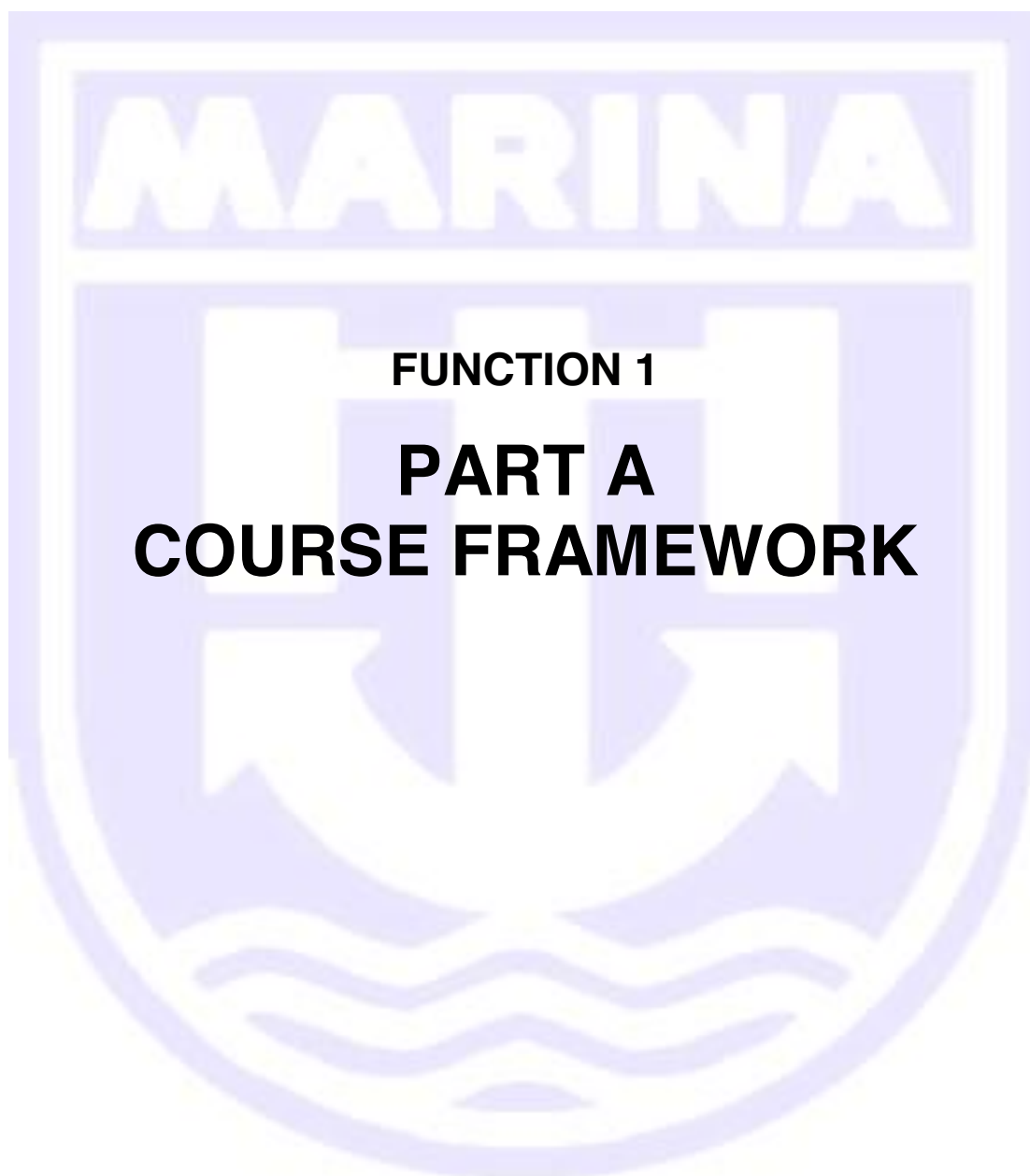
1. Scope
2. Learning Objectives
3. Entry Standards
4. Course Intake Limitation
5. Staff Requirements
6. Training Facilities
7. Training Equipment
8. Exemption
9. Certificate of Course Completion
10. Suggested Textbooks and References

#### Part B: Course Outline

1. Competence
2. Topics
3. Time Allocation for Each Topic
4. Total Hours for Function 1

#### Part C: Course Syllabus

1. F1 - Module 1: Plan a voyage and conduct navigation
2. F1 - Module 2: Coordinate search and rescue operations
3. F1 - Module 3: Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision making
4. F1 - Module 4: Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making



**SCOPE**

Function 1 of this updating course covers the topics relating to the gaps that were identified in order for Management Level Marine Deck Officers who were certified under the STCW'78 Convention, as amended in 1995 to meet the additional knowledge, understanding and proficiencies (KUPs) under the 2010 STCW Manila Amendments for *“Navigation at the Management Level”*.

**LEARNING OBJECTIVES**

Upon successful completion of the training under this Function, trainees shall be expected to have gained additional knowledge, understanding and proficiencies needed to meet the requirements of the 2010 STCW Manila Amendments for *“Navigation at the Management Level”* on a ship of 3,000 gross tonnage or more.

**ENTRY STANDARDS**

Entrants to this course must be Management Level Marine Deck Officers who are holders of COC under Regulation II/2 of the STCW '78 Convention, as amended in 1995.

**COURSE INTAKE LIMITATION**

- Trainees shall not exceed 24 students per class.
- Practical training using a full mission bridge simulator shall follow a man-machine ratio of 4:1 and 2:1 for ECDIS.

**STAFF REQUIREMENTS**

Every METI offering this Management Level Course shall have a Training Supervisor, a minimum of two (2) instructors and an assessor for the course; subject the approval by the Administration in accordance with MARINA Circular (MC) No. 2013-03, as amended by MC 2013-12, series of 2013. The qualification requirements shall be as follows:

**STAFF REQUIREMENTS (Continued...)**

**Training Supervisor**

- Holder of at least a Bachelor of Science Degree;
- Have not less than one (1) year experience in maritime education and training;
- Have an understanding of the training course and the specific objectives of the training being conducted under his supervision; and
- Holder of a Certificate of Completion of Instructor's Training Course (IMO Model Course 6.09) or 18 earned units in teacher education covering teaching methodologies, test and measurement.

**Instructors**

- Management Level Deck Officer with not less than one (1) year of seagoing service in that capacity on board seagoing ship of 3,000 GT or more;
- Holder of a Certificate of Completion of Instructor's Training Course (IMO Model Course 6.09) or 18 earned units in teacher education covering teaching methodologies, test and measurement;
- Holder of a Certificate of Completion of the Management Level Course for Marine Deck Officers;
- Holder of a COC as Management Level Marine Deck Officer;
- Holder of a valid Professional Regulation Commission (PRC) License as Management Level Marine Deck Officer;
- If conducting training using simulator:
  - Must be holder of a Certificate of Completion of the "Train the Simulator Trainer and Assessor" (IMO Model Course 6.10), or approved Training Course for Simulator Instructors and Assessors; and
  - Have gained practical operational experience on the particular type of simulator being used.



## STAFF REQUIREMENTS (*Continued...*)

### Assessors

- Management Level Deck Officer with not less than one (1) year seagoing service in that capacity on board seagoing ship of 3000 GT or more;
- Holder of a Certificate of Completion of the Management Level Course for Marine Deck Officers;
- Holder of a valid PRC License as Management Level Marine Deck Officer;
- Holder of a Certificate of Completion of the Training Course in Assessment, Examination and Certification of Seafarers (IMO Model Course 3.12);
- Have gained practical assessment experience as understudy for not less than three (3) times;
- If conducting assessment involving the use of simulators:
  - Must be holder of a Certificate of Completion of the Train the Simulator Trainer and Assessor (IMO Model Course 6.10), or approved Training Course for Simulator Instructors and Assessors; and
  - Have gained practical assessment experience on the particular type of simulator being used under the supervision and to the satisfaction of an experienced Assessor for not less than three (3) times.

### Resource Person

The METI may be allowed to engage the services of other persons with established expertise on particular topics, provided that the Administration shall be duly informed at least five (5) working days prior to engagement.

### **NOTE TO METIs:**

*The foregoing are the qualification standards that must be met by the Instructors, Assessors and Supervisor. In addition, METIs shall exercise utmost diligence and responsibility in the selection of such Staff and ensure that they are appropriately qualified to carry out effective teaching, assessment and supervision of the course, respectively.*

### **TRAINING FACILITIES**

- For the theoretical part, a classroom with multi-media over-head projector, with a computer set, and a white board with eraser will be utilized, among others. This does not however preclude METIs from utilizing additional teaching aids to facilitate learning.

### **TRAINING EQUIPMENT**

A Full Mission Bridge Simulator certified as Class “A” or similar category showing reference to STCW Table A-II/2, by an internationally recognized Classification Society, capable of simulating required KUPs for this updating course, with briefing and debriefing rooms, among others. ECDIS Training equipment prescribed by the Administration shall also be necessary.

### **EXEMPTION**

Trainees who have already completed training on the “*Operational Use of Electronic Chart, Display and Information System [ECDIS]*” (IMO Model Course 1.27) can be exempted from the training requirements under Module 4 of this Function but shall still be subjected to assessment covering the said Module.

### **CERTIFICATE OF COURSE COMPLETION**

Trainees who successfully completed this updating course and successfully passed the assessment thereof, shall be issued a Certificate of Completion in accordance with the format prescribed by the Administration.

### **SUGGESTED TEXT BOOKS AND REFERENCES**

For the textbooks and reference materials, METIs should refer to the list of Teaching Aids, Videos, References, Textbooks and Bibliographies indicated in the revised IMO Model Course 7.01 validated during the 44<sup>th</sup> Session of the IMO’s Sub-Committee on STW. This does not however preclude METIs from utilizing other relevant and more updated books and references that may be available or prescribed by the Administration. METIs shall also exercise prudence and utmost responsibility in selecting the textbooks and references for this Function to ensure that only relevant and up-to-date ones shall be utilized.



<u>MAIN TOPICS</u>	<b>NO. OF HOURS</b>
<b>Competence</b>	
<b>F1 - Module 1: Plan a Voyage and Conduct Navigation</b>	
1. Vessel Traffic Service (VTS) areas	2
2. Reporting in accordance with the general principles for ship reporting systems and with VTS procedures	1
<b>F1 - Module 2: Coordinate Search and Rescue Operations</b>	
1. The procedures contained in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR)	5
<b>F1 - Module 4: Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making</b>	
1. Blind pilotage planning	12
<b>F1 - Module 5: Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision-making</b>	
1. Command decision-making using the information provided by ECDIS and associated navigation systems, including: <i>Management of operational procedures, system files &amp; data</i> <i>Use ECDIS playback functionality for passage review, route planning and review of system functions</i>	40
<b>TOTAL: Function 1 – Updating MLC Deck</b>	<b>60</b>

**General Rule on Time Allocation:**

*METIs must note that the number of hours allocated for the topics in this Function are the minimum and can be increased as may be necessary to cover other topics that may be deemed necessary to further update the management level officers mentioned herein.*



## F1 - Module 1

### Competence: *Plan a voyage and conduct navigation*

1. Voyage Planning for all conditions
  - 1.1 Vessel Traffic Service (VTS) areas
    - 1.1.1 traffic separation schemes en-route
    - 1.1.2 expected traffic density
  - 1.2 Navigation and Monitoring of the Voyage
    - 1.2.1 vessel traffic service (VTS) areas
2. Reporting in accordance with the general principles for ship reporting systems and with VTS procedures
  - 2.1 Ship reporting system
    - 2.1.1 explains the general principles for reporting as per VTS procedures
    - 2.1.2 determines the reporting requirements for particular reporting and VTS systems

## F1 - Module 2

### Competence: *Coordinate Search and Rescue Operations*

1. **The procedures contained in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual**
  - 1.1 Coordinate search and rescue operation
  - 1.2 Execute a search and rescue operation

*Note: Refer to IMO Model Courses No. 1.08 (Radar, ARPA, Bridge Teamwork and Search and Rescue) on coordinating and executing search and rescue in accordance with IAMSAR Manual for more details of this module.*

### F1 - Module 3

**Competence: *Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making***

1. Appreciation/review of system errors and the operational aspects of modern navigation systems including Radar and ARPA
2. Blind Pilotage Planning

*Note: METIs to refer to IMO Model Courses 1.08 for Radar Navigation - Management Level; 1.22 Ship Simulator and Bridge Teamwork; 1.27 Operational Use of Electronic Chart Display and Information Systems (ECDIS); and 1.34 AIS Operator Course for more details of this module.*

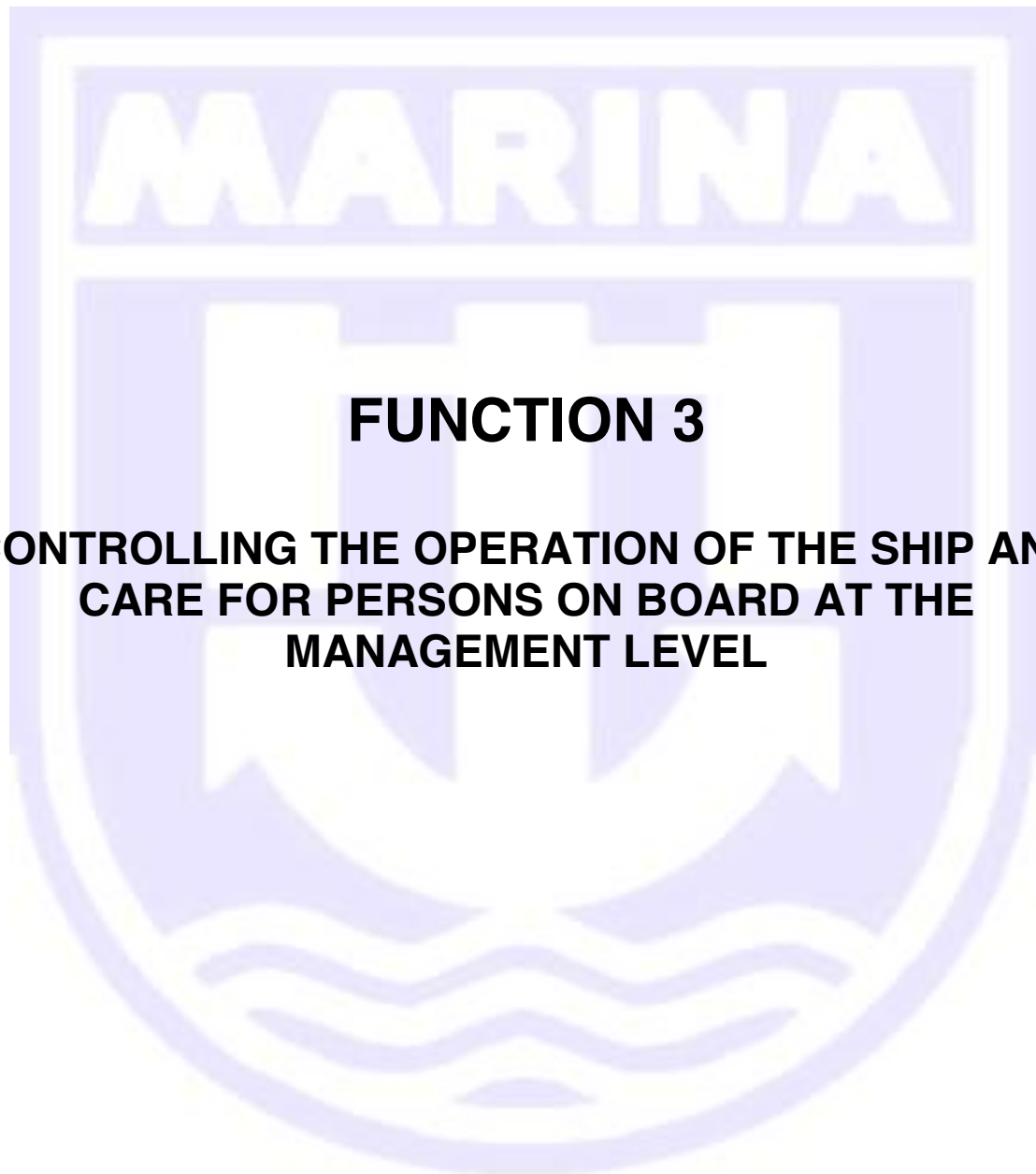
### F1 - Module 4

**Competence: *Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision-making***

1. Command decision-making using the information provided by ECDIS and associated navigation systems, including:
  - 1.1. Management of operational procedures, system files and data relating to ECDIS
  - 1.2. Use of ECDIS playback functionality for passage review, route planning and review of system functions

*Note: METIs to refer to IMO Model Courses No. 1.27 Operational Use of Electronic Chart Display and Information Systems (ECDIS), IMO Model Course No 1.34 AIS Operator Course and STCW Reg. I/12 from the perspective of command decision making, 1.08 for Radar Navigation - Management Level and 1.22 Ship Simulator and Bridge Teamwork*





## **FUNCTION 3**

### **CONTROLLING THE OPERATION OF THE SHIP AND CARE FOR PERSONS ON BOARD AT THE MANAGEMENT LEVEL**



## FUNCTION CONTENTS

### Function 3 (F3): Controlling the Operation of the Ship and Care for Persons on Board at the Management Level

#### Part A – Course Framework

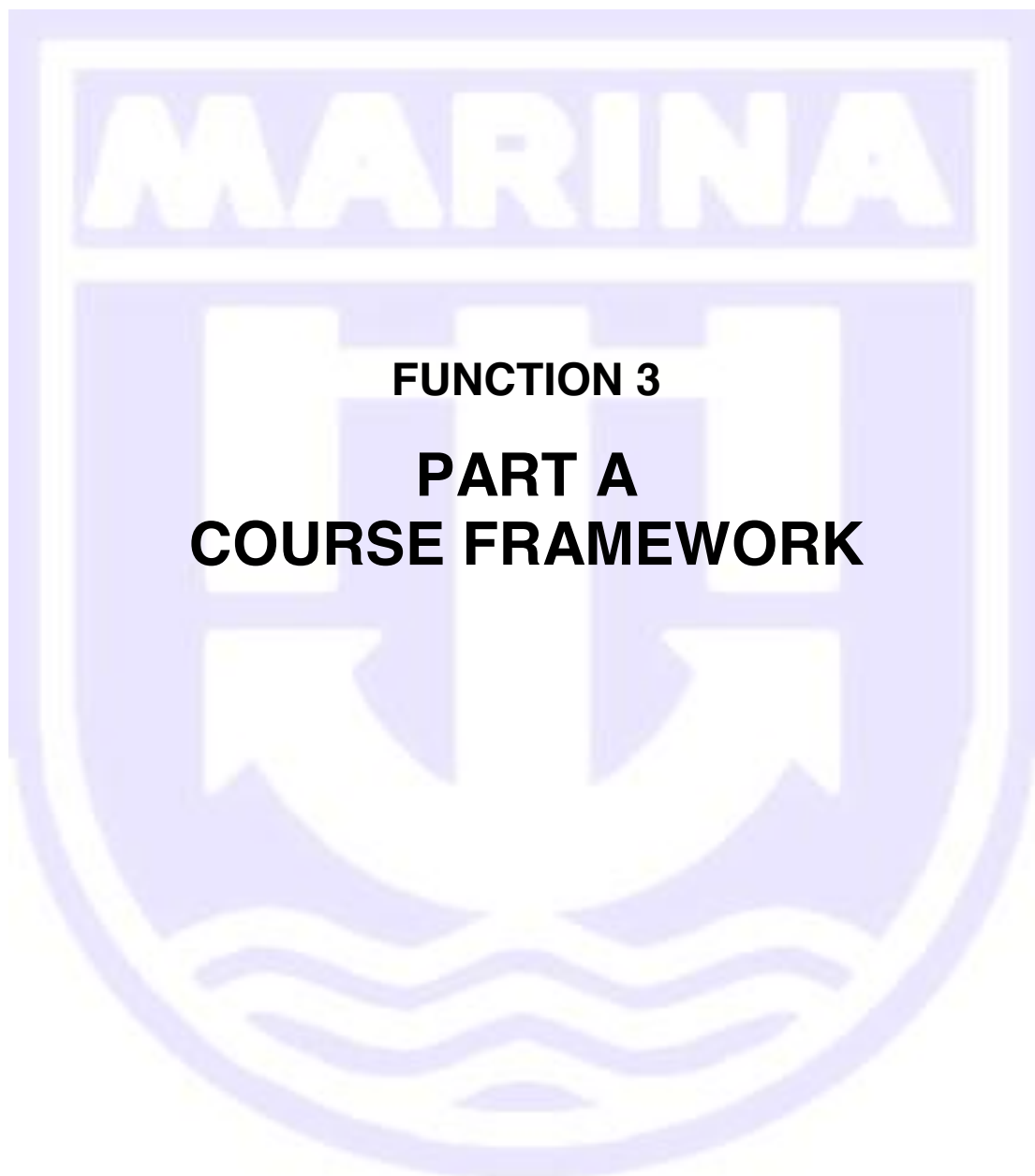
1. Scope
2. Learning Objectives
3. Entry Standards
4. Course Intake Limitations
5. Staff Requirements
6. Training Facilities
7. Training Equipment
8. Certificate of Course Completion
9. Suggested Textbooks and References

#### Part B – Course Outline

1. Competence
2. Topics
3. Time Allocation for Each Topic
4. Total Hours for Function 3

#### Part C – Course Syllabus

1. F3 - Module 5: Use of leadership and managerial skill



**SCOPE**

Function 3 of this updating course covers the topics relating to the *“Use of Leadership and Managerial Skills”* which was identified as one of the gaps in order for Management Level Deck Officer who were certified under the STCW’78 Convention, as amended in 1995 to meet the additional knowledge, understanding and proficiencies (KUPs) under the 2010 STCW Manila Amendments in *“Controlling the Operation of the Ship and Care for Persons on Board at the Management Level”*.

**LEARNING OBJECTIVES**

Upon successful completion of the training under this Function, trainees shall be expected to have gained additional knowledge, understanding and proficiencies relating to the *“Use of Leadership and Managerial Skills”* needed to meet the requirements of the 2010 STCW Manila Amendments in effectively *“Controlling the Operation of the Ship and Care for Persons on Board at the Management Level”*. on a ship of 3,000 gross tonnage or more.

**ENTRY STANDARDS**

Entrants to this course must be Management Level Marine Deck Officers who are holders of COC under Regulation II/2 of the STCW ’78 Convention, as amended in 1995.

**COURSE INTAKE LIMITATION**

- Trainees shall not exceed 24 students per class.
- Practical training using a full mission bridge simulator shall follow a man-machine ratio of 4:1.

**STAFF REQUIREMENTS**

Every METI offering this Management Level Course shall have a Training Supervisor, a minimum of two (2) instructors and an assessor for the course; subject the approval by the Administration in accordance with MARINA Circular (MC) No. 2013-03, as amended by MC 2013-12, series of 2013. The qualification requirements shall be as follows:

**STAFF REQUIREMENTS (Continued...)**

**Training Supervisor**

- Holder of at least a Bachelor of Science Degree;
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## STAFF REQUIREMENTS (*Continued...*)

### Assessors

- Management Level Deck Officer with not less than one (1) year seagoing service in that capacity on board seagoing ship of 3000 GT or more;
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### **NOTE TO METIs:**

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**TRAINING FACILITIES**

- For the theoretical part, a classroom with multi-media over-head projector, with a computer set, and a white board with eraser will be utilized, among others. This does not however preclude METIs from utilizing additional teaching aids to facilitate learning.

**TRAINING EQUIPMENT**

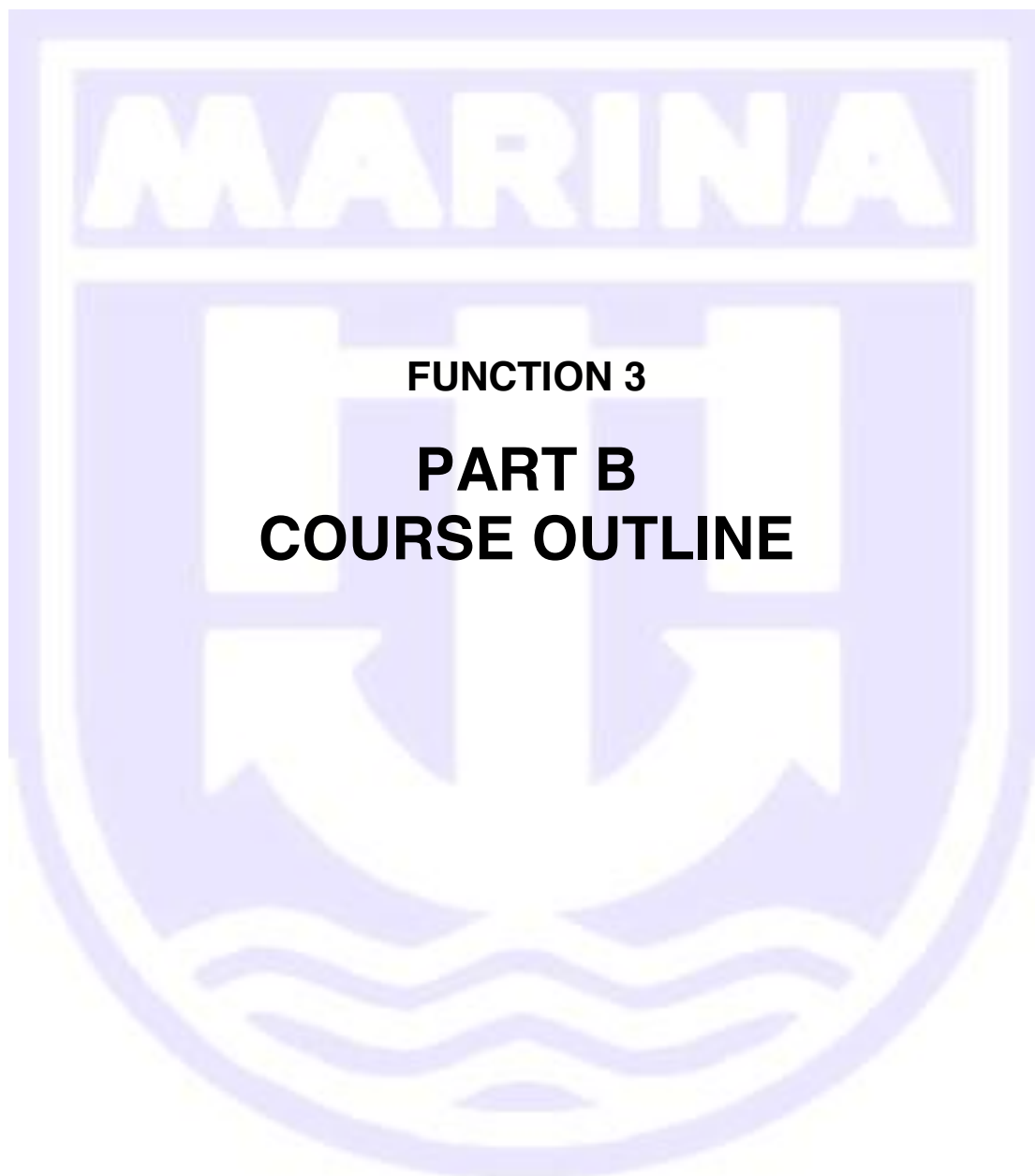
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**CERTIFICATE OF COURSE COMPLETION**

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<u>MAIN TOPIC</u>	NO. OF HOURS
<b>Competence</b>	
<b>F3 Module 5: Use of Leadership and Managerial Skills</b>	
1. Shipboard personnel management and training	4
2. Application of task and workload management	8
3. Effective resource management	8
4. Decision-making techniques	7
5. Development, implementation, and oversight of standard operating procedures	1
<b>TOTAL FOR FUNCTION 3: Controlling the operation of the ship and care for persons on board at the management level</b>	<b>28</b>

**General Rule on Time Allocation:**

*METIs must note that the number of hours allocated for the topics in this Function are the minimum and can be increased as may be necessary to cover new requirements, laws, rules and regulations, new developments, trends and practices in the maritime industry.*





## **Competence**

### **F3 Module 5: Use of Leadership and Managerial Skills**

#### **1. Personnel Management, Organization and Training on Board Ship**

##### **1.1 Shipboard personnel management and training**

###### **1.1.1 Principles of controlling subordinates and maintaining good relationships**

- identifies sources of authority and power
- discusses theories on how effective authority and power may be enhanced or diminished by management level officers on ships
- reviews theories in cultural awareness and cross cultural communication
- discusses strategies that management level officers could adopt to enhance their effectiveness in managing crews of different cultures
- reviews theories in human error, situational awareness, automation awareness, complacency and boredom
- discusses strategies that management level officers can adopt to optimize situational awareness and to minimize human error and complacency of individuals and teams
- reviews theories in leadership and teamwork
- discusses strategies that management level officers can adopt to enhance leadership and teamwork
- discusses theories of personnel motivation and relates these to shipboard situations encountered by management level officers
- explains that an individual's motivation and well being may be effected by both real and perceived influences on board ship and at home
- discusses strategies that management levels officers could adopt to optimize the motivation of individuals and teams
- discusses theories on coaching individuals and teams to improve performance
- discusses approaches to managing and improving the performance of oneself, individuals and teams
- prepares for and conducts a simulated formal performance review

- identifies the impact of repeated harassment including bullying on individuals
- recognizes indications that crew members may be physically or mentally unwell or badly demotivated
- describes strategies that can be adopted when a crew member is believed to be physically or mentally unwell or badly demotivated
- describes strategies that management level officers can take to ensure that crew remain physically well and are encouraged to remain physically active
- explains the need for management level officers to be fully familiar with the requirements of national law relating to crew employment and of all crew agreements in place on the ship
- discusses the process for signing on and discharging crew under national law
- discusses the need to ensure that new crew are appropriately certificated, competent and familiarized with the safety management system, security plan, working procedures and equipment of the ship
- explains that procedures for conducting investigations and applying consequences in disciplinary situations are governed by national law, codes of conduct, employment agreements and company procedures
- explains the process for investigating and applying consequences in disciplinary situations under relevant national law and procedures
- explains the formal process for addressing continuing levels of unacceptable performance by a crew member under national law
- explains the process for investigating and responding to incidents of harassment or bullying of crew members under national law
- explains requirements for handling crew wages, advances and allotments when this is done by management level officers on board ship

## **1.2 Training**

### **1.2.1 Training methods**

- reviews training methods that could be adopted on board ship

- discusses the effectiveness of training methods that can be adopted for training:
  - in attitude
  - in skills
  - in knowledge
- describes the preparation needed before the start of a training session
- discusses methods for ensuring that crew are motivated to participate fully in training
- demonstrates how to conduct a training session for a given topic
- lists the areas in which training is required by regulation including the requirements of SOLAS
- identifies other topics where training might be desirable
- delivers a training session to other members of the class
- discusses the resources that may be available on board ship that can be used for training

## **2. Application of task and workload management**

### **2.1 Task and workload management**

- 2.1.1 reviews theories on applying task and workload management from IMO Model Course 1.39, Leadership and Teamwork
- 2.1.2 explains that the scope of activity and conflict between activities managed by management level officers is broader than for operational level officers and requires greater task and workload management ability
- 2.1.3 plans the task and workload allocation for significant shipboard activities so that the following are considered:
  - human limitations
  - personal abilities
  - time and resource constraints
  - prioritization
  - workload, rest and fatigue
- 2.1.4 discusses strategies to monitor the effectiveness of task and workload management during an activity and to adjust the plan as necessary

- 2.1.5 discusses strategies to ensure that all personnel understand the activity to be undertaken and their tasks in this
- 2.1.6 discusses whether the encouragement of a challenge and response environment is appropriate to the task and workload management of particular shipboard tasks
- 2.1.7 discusses the importance of debriefs and reflection after activities have been conducted to identify opportunities for improving task and workload management

### **3. Effective resource management**

#### **3.1 Application of effective resource management**

- 3.1.1 reviews theories on effective communication
- 3.1.2 demonstrates effective communication in simulated or real situations involving communications on board ship and between ship and shore
- 3.1.3 discusses how management level officers can encourage other personnel to use effective communications
- 3.1.4 reviews theories on effective resource allocation, assignment and prioritization
- 3.1.5 demonstrates the effective allocation, assignment and prioritization of resources when managing simulated or real shipboard activities
- 3.1.6 reviews theories on decision making that considers team experience
- 3.1.7 demonstrates the ability to involve team member effectively in decision making when managing simulated or real shipboard activities
- 3.1.8 reviews theories on assertiveness and leadership
- 3.1.9 discusses appropriate leadership styles and levels of assertiveness for management level officers in a range of shipboard activities
- 3.1.10 demonstrates the ability to apply appropriate leadership styles and levels of assertiveness when managing simulated or real shipboard activities

- 3.1.11 reviews theories on obtaining and maintaining situational awareness
- 3.1.12 demonstrates the ability to obtain and maintain situational awareness when managing complex simulated or real shipboard activities
- 3.1.13 reviews theories on the use of short and long term strategies
- 3.1.14 demonstrates the ability to apply short and long term strategies when managing simulated or real shipboard activities

#### **4. Decision-Making Techniques**

##### **4.1 Situation and risk assessment**

- 4.1.1 reviews theories of situation and risk assessment
- 4.1.2 discusses formal and informal approaches to risk assessment
- 4.1.3 identifies typical risks that management level officers may have to assess
- 4.1.4 demonstrates the ability to effectively assess risk in the planning and conduct of simulated or real shipboard activities

##### **4.2 Identify and generate options**

- 4.2.1 reviews theories on identifying and generating options
- 4.2.2 demonstrate the ability to identify and generate options when making decisions as a management level officer in simulated or real shipboard activity

##### **4.3 Selecting course of action**

- 4.3.1 reviews theories on selecting the course of action in making decisions
- 4.3.2 demonstrate the ability to select appropriate courses of action when making decisions as a management level officer in simulated or real shipboard activity



#### 4.4 Evaluation of outcome effectiveness

- 4.4.1 explains how to carry out the evaluation of outcome effectiveness and the importance of doing it

#### 5. Development, implementation and oversight of standard operating procedures.

- 5.1 discusses approaches to developing standard operating procedures (SOP's)
- 5.2 explains the methods to implement the SOP's
- 5.3 explains why it may be desirable for there to be oversight and approval of many SOPs and explains the dangers associated with it

(End of the Course)