MINISTRY OF MARITIME AFFAIRS
AND INSULAR POLICY
SEAFARERS TRAINING DIRECTORATE

ON BOARD TRAINING RECORD BOOK FOR DECK CADETS

(FIRST SEAGOING TRAINING PERIOD)

O.T.R.B. 1

DECK DEPARTMENT

PIRAEUS 2021

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INSTRUCTIONS
FOR THE DECK OFFICER IN CHARGE OF TRAINING

The present book contains the English translation of all the texts and tasks contained in the Greek on board training record book for deck/engineer cadets of the first seagoing training period and its purpose is to inform the deck or engineer officer in charge of training on board the vessel of the duties and tasks that the trainee has to carry out during his/her first mandatory seagoing service. The content of the book is laid out per page and task, just like it is presented in the corresponding Greek training record book. Any tasks in the Greek training record book contain terms or information already written in English, have not been included in this book. Instead of them, a note has been written that refers to the information already written in the Greek training record book.

ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ
1954

Pages 9-10

TRAINING REGULATION OF THE MERCHANT MARINE ACADEMIES (M.M.A.) FOR DECK AND ENGINE OFFICERS

ARTICLE 22

ON BOARD TRAINING SEAGOING SERVICE

1. (a) During the first seagoing training period the student is obliged to perform a seagoing service of 5-6 months and during the second seagoing training period a seagoing service of 6-7 months, provided that the overall length of both seagoing periods is not less than twelve (12) months.

(b) A student who, for whatever reason, has not completed the aforementioned designated seagoing service during the first or the second seagoing training period, may register for the 2nd or the 4th semester respectively, as long as the seagoing service s/he has completed is short of the minimum allowed limit of the first seagoing training period or the total of the minimum limits of both the first and the second seagoing training periods respectively, proportionate to the percentage (15%) of the absences mentioned in paragraph 1 of article 21 of the current Regulation (s/he should have completed a minimum seagoing service of at least four (4) months and seven (7) days and nine (9) months and ten (10) days respectively), provided that before graduating from the Academy and within the time limits determined in paragraph 9 of article 19 of the current Regulation, s/he shall have completed the mandatory overall twelve-month seagoing service.

(c) If the first and the overall (first + second) seagoing services have a shorter length than the limits mentioned in the previous case (b), it is possible for the student to exceptionally register for the 2nd or the 4th semester respectively, via a ministerial decision and under the following conditions:

1. The first seagoing service must have a minimum length of three (3) months or the first and the second seagoing services must have an overall minimum length of eight (8) months and have been assessed as successful by the bilateral assessment committee.

2. There is enough evidence for an Act of God or other reasons that justify the exceptional registration of the student.

3. The view of the Merchant Marine Academy Council is positive and

4. Before graduating from the Academy and within the time limits determined in paragraph 9 of article 19 of the current Regulation, the student shall complete the mandatory overall twelve-month seagoing service.

2. During each seagoing service the student has to complete:

(a) An on board training record book and

(b) A personal work logbook.

3. The ship's navigational or engineer officer in charge of training writes down an appropriate account regarding the trainee's general progress, which shall then be signed by the master and handed inside a sealed envelope to the trainee who has to deliver it to the Academy.

4. The student who has completed the first or the second seagoing service submits an application for his/her registration for the 2nd or the 4th semester respectively, attaching to it the on board training record book fully completed, the personal work logbook and the training officer's account enclosed in the sealed envelope. Then, s/he verbally supports the practical training s/he has had on board in the form of an interview, before a committee that consists of two instructors of maritime subjects of his/her specialty.

In the condition that an adequate number of instructors of maritime subjects of the student's specialty are not permanently employed in the Academy, casual associate instructors of maritime subjects may be members of the assessment committee.

5. After the student's interview has been completed and after taking into consideration the navigational or engineer training officer's account, the above-mentioned committee decides whether the student's seagoing service was successful or not by writing a relevant report.

6. The committee's meetings, as well as the relevant reports, must be completed, in any case, before the beginning of the corresponding semester. In the case of a student's exceptional late registration as per article 3 of the current Regulation, the committee holds a meeting whenever it is required, after the beginning of the 2nd or the 4th semester until the date that the student is to be rejected due to absences.

7. If the seagoing service is ruled as unsuccessful, the student is obliged to perform it again and is excluded from attending the next semester at the Academy. The seagoing service is to be performed within the time limits determined in paragraph 5 of article 2 of the current Regulation.

8. The student who does not successfully complete the seagoing service for the second time until the beginning of the next semester, is permanently rejected from the Academy.

The student is also permanently rejected from the Academy when, although s/he had the right to perform the first or the second mandatory seagoing service:

(a) s/he does not show up at his/her Academy to register for the 2nd or the 4th semester respectively, within the limits determined in paragraphs 1 and 3 of article 3 of the current Regulation, during the current as well as the next academic year, or

(b) s/he does not show up at his/her Academy to register for the 2nd or the 4th semester respectively, within the limits determined in paragraphs 1 and 3 of article 3 of the current Regulation, during the current as well as the next academic year and if during the next academic year the seagoing service s/he has completed is ruled as unsuccessful, or

(c) if during the current academic year the seagoing service s/he has completed is ruled as unsuccessful and during the next academic year s/he does not show up at his/her Academy to register for the 2nd or the 4th semester respectively, within the limits determined in paragraphs 1 and 3 of article 3 of the current Regulation.

9. After the assessment of each mandatory seagoing service, the students' on board training record books (O.T.R.B) and personal work logbooks are kept in the Academy's secretariat for six (6) months and afterwards they are destroyed.

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STUDENT'S PERSONAL DETAILS

FULL NAME:..... FATHER'S NAME:.....
SEAMAN'S BOOK No.:..... DATE OF REGISTRATION:..... REGISTRATION No.:.....
STUDENT'S ORIGIN (1):.....
.....

VESSEL'S DETAILS

Vessel's s/n	Name and type of vessel (2)	Ship's register	Date	
			Sign on	Sign off

(1) Specify the name of the student's Academy.
(2) M/V = Cargo vessel, M/T = Tanker, P/S = Passenger vessel, F/B = Ferry Boat, LNG or LPG = Gas Carrier, Ro/Ro = Roll on/Roll off, OBO = Oil Bulk Ore Carrier, etc.

SPECIMEN

SPECIAL ACCOUNT

For the student ……... (1)
The undersigned …… (2)
…….. (3) of the M/V …… (4) flying the …… flag, registered in ……., GRT ……
with …….. main engines, horsepower ……,
hereby report the following:

1. The student of the Merchant Marine Academy of …….. (5) …… (1) father's name …… (6) Seaman's Book No. …… signed on the vessel on …../…../20….. and signed off on …../…../20….. (7).

2. During his/her seagoing service s/he was occupied under my supervision and instructions as training officer in charge of practical training according to what is determined in the on board training record book of the Merchant Marine Academies (O.T.R.B. 1).

3. Further remarks:……
……
……
……
……

Date ……

The officer in charge

…… (8)

ATTESTED
Date ……
THE MASTER
Vessel's stamp – Signature

NOTE

This account is filled in after the completion of the training seagoing service.
In case the training officer or the trainee sign off before the completion of the training seagoing service an account is written for the period of service until the day of discharge.
The new training officer writes a supplementary account.
(1) Student's full name.
(2) Training officer's full name.
(3) Master or Engineer.
(4) Vessel's name.
(5) Student's Academy.
(6) Father's name.
(7) The dates should be written in two digits (e.g. 07/02/2000).
(8) A signature and the ship's stamp are printed. If the training officer is not the Master, the Special Account is attested by the Master with his signature and the vessel's stamp.

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TASKS PROGRESS GUIDE

You may follow the progress of your tasks by crossing out the numbers of the tasks you have undertaken in the following table.

	"PARTICULARS OF THE VESSEL" completed	"FAMILIARISATION WITH THE VESSEL" carried out
First vessel		
Second vessel		
Third vessel		

NUMBERS OF TASKS (N/T)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

…….. The table goes up to number 214.

Pages 14-18

WEEK	NUMBER OF TASKS (N/T) UNDERTAKEN EVERY WEEK (1)					TOTAL OF TASKS	TRAINING OFFICER'S CERTIFICATION (2)
1st FROM:……. TO:…….						(in full)	……. (place) ……. (date) ……. (signature) (stamp)

In the rest of the table, up to page 18, only the serial number that refers to the weeks on board is changing (2nd to 30th week).

At the bottom of each page the following notes are included:

(1) Only one N/T is filled in each square. The blanks are crossed out with two diagonal lines.
(2) The training officer certifies that the tasks mentioned have been undertaken on board during the corresponding week.

UNIT CONVERSION TABLE

METRIC m, cm, kg, M.T.		→ IMPERIAL ft, inch, LT, Pounds	ENGLISH ft, inch, LT, Pounds		→ IMPERIAL m, cm, kg, M.T.
millimetres	x 0,03937	→ inches	inches	x 25,4	→ millimetres
centimetres	x 0,3937	→ inches	inches	x 2,54	→ centimetres
metres	x 3,2808	→ feet	feet	x 0,3048	→ metres
square metres	x 10,764	→ square feet	square feet	x 0,0929	→ square metres
cubic metres	x 35,316	→ cubic feet	cubic feet	x 0,0283	→ cubic metres
kilograms	x 2,2046	→ libres [1]	libres	x 0,45359	→ kilograms
kilograms	x 0,0009842	→ long ton[2]	long ton	x 1016,047	→ kilograms
metric tons [3]	x 0,9842	→ long ton	long ton	x 1,016	→ metric tons
TPC [4]	x 2,4998	→ TP1" [5]	TP1"	x 0,4	→ TPC
MTC [6]	x 8,2014	→ MT1" [7]	MT1'	x 0,122	→ MTC
m.rad	x 187,9767	→ ft x deg	ft x deg	x 0,0053	→ m.rad
specific gravity (MT/m^3)	x 0,0279	→ sp.grav (LT/f^3)	specific gravity (LT/f^3)	x 35,88	→ sp.grav (MT/m^3)
stowage factor (m^3/MT)	x 35,88	→ st.fac. (f^3/LT)	stowage factor (f^3/LT)	x 0,0279	→ st.fac. (m^3/MT)
metric tons [8]	x 3,229	→ long tons [9]	long tons	x 0,3097	→ metric tons

RELATION BETWEEN VOLUME AND WEIGHT OF WATER

1 cubic metre of fresh water (sp. grav. = 1) = 1 metric ton (1000 kg)
1 cubic metre of seawater (sp. grav. = 1,025) = 1,025 metric ton (1025 kg)
1 cubic metre of seawater = 0,975 cubic metres

[1] Pounds or libres
[2] 1 Long ton = 2240 LBS
[3] 1 Metric ton = 1000 kg = 1 tonne
[4] Metric tons per cm
[5] Long tons per inch
[6] Metric tons per cm
[7] Long tons per inch
[8] Metric tons
[9] Long tons

TRAINEE'S TASKS

Page 21

PARTICULARS OF THE VESSEL

Full knowledge of the vessel is a basic characteristic of a good officer. The completion of the table below will help you systematise and supplement your knowledge on this matter.
Instructions: It is essential that you complete both columns, SI (Metric system) and Imperial (English system). If the particulars of the vessel are provided in one unit system only, use the table on page 19 for the conversion. In the last column write the Greek translation of the terms mentioned in the first column.

FIRST VESSEL

VESSEL'S NAME			**Call Sign**
	S.I.	IMPERIAL	GREEK TRANSLATION OF THE FIRST COLUMN

Page 23

SECOND VESSEL

VESSEL'S NAME			**Call Sign**
	S.I.	IMPERIAL	GREEK TRANSLATION OF THE FIRST COLUMN

Page 25

THIRD VESSEL

VESSEL'S NAME			**Call Sign**
	S.I.	IMPERIAL	GREEK TRANSLATION OF THE FIRST COLUMN

Page 27

FAMILIARISATION WITH THE VESSEL

FIRST VESSEL: ……

Complete the following items:

WHAT IS THE DISTRESS SIGNAL	
WHAT IS THE ABANDON SHIP ALARM SIGNAL	
WHAT IS THE FIRE ALARM SIGNAL	
WHAT IS THE FLOODING ALARM SIGNAL	
WHAT IS YOUR STATION WHEN ABANDONING THE VESSEL	
WHAT ARE YOUR DUTIES IN CASE OF FIRE	
WHAT ARE YOUR DUTIES IN CASE OF FLOODING	

TASKS OF FIRST PRIORITY	Training Officer's signature	Date
Bridge layout and equipment understood (instruments, equipment, switches, fuses etc.).		
First aid equipment and its keys located on board vessel.		
Fire fighting equipment (alarm activating points, alarm bells, extinguishers, hydrants, fire axes and hoses) located on vessel.		
Line throwing apparatus located on vessel.		
Distress rockets, flares and other pyrotechnics, breathing apparatus, fire-fighter's outfit and equipment located on vessel.		
Emergency stops for main engine located on deck and safety valves located on vessel.		
Watertight doors located on vessel and their operation comprehended (mechanic and manual).		
CO_2 bottle room located on vessel and system operation comprehended.		
Valves of smothering apparatus located in pump room, cargo tanks and cargo holds.		
Emergency fire pump located.		
Change of rudder from automatic to manual comprehended.		
Load lines (for a tanker) or cargo space layout (for a cargo vessel) comprehended.		

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FAMILIARISATION WITH THE VESSEL

SECOND VESSEL: ……

Complete the following items:

The table is similar to that of page 27.

Page 29

FAMILIARISATION WITH THE VESSEL

THIRD VESSEL: ……

Complete the following items:

The table is similar to that of page 27.

Page 30

LIFESAVING APPLIANCES

Check the equipment and supplies of a lifeboat on your vessel and complete the following table.
LIFEBOAT No……. (……).

N/T **1**

EQUIPMENT & SUPPLIES	GREEK TRANSLATION OF THE PREVIOUS COLUMN	Existing quantity inside the lifeboat	Quantity to be available as per SOLAS '74

Page 32

What measures are taken for the maintenance of the lifeboat equipment? What is the main reason for its damage?

Page 33

N/T	TASK
2	What are the minimum food rations and drinking water quantities according to the regulations for a lifeboat? Under which condition is it permitted to reduce the quantity of drinking water? …… …… ……
3	Complete the following information about the lifeboat in N/T 1. a) Lifeboat No. …… b) Construction material …… c) Length …… d) Breadth …… e) Lateral height …… f) Capacity in cubic metres …… g) Number of persons …… h) Floatation tanks: Material ……..... Volume …… Which of the above-mentioned items must be marked on the lifeboat and where? What other items should be marked on the lifeboat and where? …… …… ……

Page 34

N/T	TASK
4	Complete the following table about the lifeboat in N/T 1. (Write the Greek translation in the brackets provided). ***The table included in the task is already written in English.*** If the expiry date is not marked, how can it be calculated? What are the manufacturer's instructions regarding the use of the above-mentioned emergency pyrotechnics? (If written in foreign language, copy them in that language and provide a Greek translation next to them). ……

Page 35

N/T	TASK
5	What measures should be taken so that: a) The lifeboat can be kept next to the embarkation deck. b) After embarkation, the lifeboat can be moved away smoothly (without any resistance) from the deck in order to be launched. …… ……
6	Describe the system through which the tackles of the lifeboat are freed. Also describe the relevant instructions and the conditions for its proper operation. What kind of hazards may arise due to bad operation or wrong handling? …… ……

Page 36

N/T	Complete the following information regarding the propulsion engine of a lifeboat on your vessel.
7	Manufacturer: …… Type: …… Serial No.: …… Horsepower: …… Number of cylinders: …… Fuel: …… Fuel tank capacity: …… How many hours can the engine operate with the fuel available in its tank? …… How many hours should the fuel be adequate as per SOLAS 1974? …… What is the number of the SOLAS regulation and paragraph that provide the above-mentioned details? …….. What is the cooling system of the engine? …….. …… What kind of maintenance is required for the engine? …… …… …… …… I hereby certify that the trainee has learnt how to operate the engine of the lifeboat mentioned above. …… (Training Officer's signature) …… (Date)

Page 37

N/T	TASK
8	What is the best way to embark a lifeboat? a. From the vessel …… …… b. From the water …… ……

9	How can you bring a liferaft that was inflated upside down back to normal position? …… ……
10	Write down how the liferafts should be launched according to the manufacturer's instructions and underline the most significant action. …… ……

Page 38

N/T	TASK
11	How many liferafts are there on board your vessel? What is their capacity? Which regulation states their number and capacity, and what exactly is required for your vessel? Where is each liferaft located? …… ……
12	Choose one of the vessel's liferafts and complete its particulars in the following table. Manufacturer:…… Type:…… Construction material:…… Serial number:…… Last test date:…… Next test date:…… Number of persons:…… What do the regulations require in case a vessel sinks without the liferaft having been launched to the water and how is this ensured on your vessel? …… ……

Page 39

N/T	TASK
13	Find out when the lifeboat launching system is tested and maintained. Describe in detail the maintenance work done and the safety measures taken to avoid any accidents for the crew. …… ……

Page 40

It is certified that the trainee has participated in the following abandon ship drills, during which the lifeboats were launched and the crew practised them.

Date	Signature	Port	Number of lifeboat	Type of practice (rowing, etc.)
……	……	……	……	……
……	……	……	……	……
……	……	……	……	……

<table>
<tr><th>N/T</th><th>TASK</th></tr>
<tr><td>14</td><td>Answer the following questions regarding lifebuoys. Write down what can be found on your vessel in the first column and what is required by SOLAS regulation no. (……)* in the second column.

<table>
<tr><td>Lifebuoys</td><td>1</td><td>2</td></tr>
<tr><td>Total number</td><td></td><td></td></tr>
<tr><td>Construction material</td><td></td><td></td></tr>
<tr><td>“ “</td><td></td><td></td></tr>
<tr><td>Colour</td><td></td><td></td></tr>
<tr><td>Number of lifebuoys equipped with:
a) Line ……..
b) Automatic light ……
c) Length of line ……..
d) Construction material of line ……
e) Smoke signal ……..</td><td>……
……
……
……
……</td><td>……
……
……
……
……</td></tr>
</table>
How can the good condition of lifebuoys be checked and what kind of maintenance is required?
……
……

<u>Note:</u>
* To be completed by the trainee.</td></tr>
</table>

Page 41

<table>
<tr><th>N/T</th><th>TASK</th></tr>
<tr><td>15</td><td>Answer the following questions regarding the automatic lights of lifebuoys on board your vessel:

Manufacturer: ……
Type: ……
How they are activated: ……
……
……
How should they be attached to ensure their proper operation?
……
……
What kind of maintenance is required?
……
……</td></tr>
<tr><td>16</td><td>Answer the following questions regarding lifejackets:

Total number: ……
Construction material: ……..
Way to ensure their buoyancy: ……
……
Colour: ……
Distinctive marking: ……
……
How is their good condition checked and how often is that done? ……
……
……</td></tr>
</table>

Page 42

N/T	TASK
17	Complete the missing information regarding the line throwing apparatus on your vessel: Manufacturer and type: …… Number of rockets …… Number of lines ……... Rocket construction date: …… Date of expiry …….. What are the manufacturer's instructions regarding the operation of the apparatus? (If written in foreign language, copy them in that language and provide a Greek translation) …… …… What do the regulations require for this apparatus? Which regulations are these? …… ……

Page 43

FIRE SAFETY

N/T	TASK
18	Complete the table: Type of fire / Material burnt / Appropriate fire-extinguishing means **A** **B** **C** **D** **E**
19	Translate the following terms and explain them: English / Greek / Interpretation Flash point Fire point Ignition temperature Spontaneous combustion Flammable mixture

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PORTABLE FIRE EXTINGUISHERS

Complete the following table regarding the portable fire extinguishers on board your vessel.

N/T **20**

Type	Total number of each type		Content in litres or kilograms	Test date	Types of fire for which it is dangerous	Types of fire for which it is effective	Number of charges	How do you establish that the fire extinguisher needs recharging
	Engine room and pump room	Remaining areas						
1	2	3	4	5	6	7	8	9

INSTRUCTIONS: (1) CO_2, Foam, etc. (5) If the dates are not the same, write the oldest. (6) and (7) the type of fire is to be entered with one of the letters A, B, C, D, E.

Page 45

N/T	TASK
21	Which are the dangers connected with the use of each type of fire extinguishers? …… ……
22	Which types of fire extinguishers can be recharged on board the vessel? What does a recharge consist of for each type? How is recharging carried out? …… ……
23	How are the following checked and maintained: a) the fire hoses, b) the nozzles, c) the fire hydrants? …… ……
24	Complete the following table regarding the fire pumps on your vessel.

Fire pump ( ) (1)	No. (2)	Where placed ( ) (3)	Pump type ( ) (4)	Capacity ( ) (5)	Driven by: ( ) (6)

Instructions: a) Fill in the Greek translation in the brackets provided.
b) Column (1) e.g. Sanitary, General service, butterworth etc.

Page 46

N/T	TASK
25	It is certified that the trainee has learnt how to operate the emergency fire pump and the emergency diesel generator. ..... (Training Officer's signature) ..... (Date)
26	Complete the table below regarding your vessel. ***The table included in the task is already written in English.*** **Note: Fill in the Greek translation in the brackets provided.*
27	What is the International Shore Connection? What is it used for? Where is it located on board your vessel? How many pieces does it consist of? Which pieces are they? ....
28	Complete the table below regarding your vessel. ***The table included in the task is already written in English.*** *Instructions: a) Fill in the Greek translation in the brackets provided.* *b) Column (1) in mm or inches.* *c) Column (2) in metres or feet.*

Page 47

N/T	TASK
29	What kind of flow is achieved in each one of the three positions of the nozzle in the sketch? 1. ..... 2. ..... 3. .....
30	The additional pipes in the sketch are used together with the nozzle of the previous task. What is the length of each one of them? What are they used for? What must the position of the lever be when additional pipes are used? .... ***Sketch:*** Bending angle 60º Bending angle 90º
31	**How often and in what way is the test of readiness and good operation of the items in N/T 31 to 37 carried out?** The fire detection system. ....
32	The alarm activating points and alarm bells. .....
33	The automatic sprinkler systems. .....
34	The fixed foam fire extinguishing systems. .....

Page 48

N/T	TASK
35	The fixed gas fire extinguishing systems (e.g. carbon dioxide CO_2) …… ……
36	The fixed steam fire extinguishing systems. …… ……
37	Other fire extinguishing systems available on your vessel. …… ……
38	Describe which fixed fire extinguishing systems are available on your vessel and which areas they are used for. …… ……
39	How many firefighter's outfits are there available on your vessel? What parts do they consist of? Which regulation describes them? …… ……

Page 49

N/T	TASK
40	Complete the table for each breathing apparatus on your vessel: Type …… Manufacturer …… Length of air hose (if available) …… Duration of operation (if self-contained) …… Length of lifeline and construction material ……
41	**How often and in what way are the readiness and good operation of the following checked?** a) The breathing apparatus with air pump. …… …… b) The self-contained breathing apparatus. …… ……
42	How does the user of a self-contained breathing apparatus make sure for how long s/he still has adequate air available? …… ……

Page 50

RUDDER

N/T	TASK	Training Officer's signature	Date
43	***Learn the following:*** The importance of the orders given to the helmsman.		
44	The process of taking over / handing over the watch to the helmsman.		
45	The use of the hydraulic or the electric rudder.		
46	Steer the vessel with the use of the gyrocompass.		
47	Steer the vessel with the use of the magnetic compass.		
	It is certified that the trainee …… has performed helmsman's duties (not including the instructing periods of time) as follows: a) At least 10 hours in total. b) At least 4 times while entering or leaving port. c) In rivers or canals (if there was such an opportunity). …… (Training Officer's signature) …… (Date)		
48	Write a short description of the auxiliary steering system of your vessel stating the following: a) The location on board where the vessel is steered from. b) The way of changing from steering on the bridge to steering with the emergency steering gear. c) How often and in what way is the maintenance of the system carried out? d) How often are a system test and a relevant drill held? …… ……		

Page 51

OCCUPATIONAL SAFETY

N/T	TASK
49	Which are the safety measures for the safe embarkation or disembarkation of the pilot (Pilot ladder construction, way of rigging and securing etc.)? Which regulation requires these measures (Chapter and regulation)? …… ……
50	Which are the safety measures for preventing accidents to persons who work on a scaffold? …… ……

51	**Mention the safety measures for preventing occupational accidents when working:** a) On the funnel. …… …… b) On the mast or on top of the mast. …… …… c) On the radar antenna. …… …… b) In an enclosed space. …… ……

Page 52

OCCUPATIONAL SAFETY

N/T	TASK
52	What are the hazards and the corresponding safety measures taken to prevent accidents when using a) an electric chipping hammer, b) a pneumatic chipping hammer, c) an injection painting system for an open or an enclosed space? …… ……
	HYGIENE
53	What do the regulations require for maintaining the potable water tanks? …… ……
54	What kind of coating do potable water tanks have on your vessel? What kind of maintenance is required? …… ……
55	You are going to load potable water. Describe in detail the measures you will take in order to ensure its sanitary condition. …… ……
56	Your vessel is heading to a port where there is endemic malaria. Describe in detail the precautionary measures you will take in order to protect the health of your crew. …… ……

Page 53

SEAMANSHIP

N/T	TASK
57	Complete the table by mentioning all the ropes used on board your vessel. ***The table included in the task is already written in English.***

Instructions: a) Fill in the Greek translation in the brackets provided.
b) Mention only the ropes with a circumference larger than 16 mm or ⅝ inches.
c) Columns (3) and (4) in mm or inches.
d) Columns (5) and (6) in metric tons or long tons.
e) Column (1) e.g. manila, nylon, polypropylene, etc.

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SEAMANSHIP

N/T	TASK
58	***The table included in the task is already written in English.***

Instructions: a) Columns (1) and (2) in mm or inches.
b) Column (3) e.g. 6x24 means 6 strands with 24 wires per strand.
d) Columns (4) and (5) in metric tons or long tons.

Page 55

SEAMANSHIP

N/T	TASK
59	Which precautions are taken for preventing accidents to the crew who are heaving on a line? …… ……
60	Which specific precautions are taken for preventing accidents when synthetic fibre ropes are used for: a) lifting loads, b) making fast the vessel? …… ……
61	At the edge of the wire spring a piece of synthetic fibre rope is occasionally attached, e.g. nylon. a) Why is this done? b) What must the breaking stress of the synthetic fibre rope be? c) How long is it? …… ……

N/T	TASK	Training Officer's signature	Date
62	Learn how to make the knots that are usually used aboard vessels.		
63	Learn how to assemble a scaffold. Which safety measures must be taken for preventing accidents to those who work on a scaffold? …… ……		

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SEAMANSHIP

N/T	TASK	Training Officer's signature	Date
64	Learn how to make eyes and eye splices: a) On natural fibre ropes. b) On wire ropes. c) On synthetic fibre ropes (nylon and polypropylene).		
65	Learn how to rig a boatswain's chair. In order to grease a shroud with the use of a boatswain's chair, what is the safe way: a) to hoist a person, b) to attach the shackle that holds the boatswain's chair to the shroud?		

66	What must you pay attention to in order to properly store a tackle that is used for a boat-swain's chair or a scaffold? …… ……
67	How many times do you have to twine the strands to the following eyes? a) A natural fibre rope? …… b) A synthetic fibre rope? …… c) Wire ropes? ……
68	It is certified that the trainee made the following on his own or with assistance: 1) A rope sling. 2) An eye on a rope using a thimble. 3) An eye or an eye splice on a mooring line. 4) An eye on a runner or a reinforcement or a spring. 5) A wire sling using a thimble or a stay. …… (Training Officer's signature) …… (Date)
69	Describe briefly the way of uncoiling a coil of: a) rope, b) wire rope. …… ……

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SEAMANSHIP

N/T	TASK
70	Which measures are taken for the proper storage and maintenance of: a) Natural fibre ropes, b) Synthetic fibre ropes, c) Wire ropes? …… ……
71	Which safety measures are taken regarding the gangway / accommodation ladder? …… ……

INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA

The learning of each regulation is separately certified by the Training Officer by writing the date and signing.

N/T	Regulation	Date	Signature		N/T	Regulation	Date	Signature
72-74					**75-76**			

77	Annex IV

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CARGO HANDLING EQUIPMENT

The Greek letters used in the sketch may be replaced with the letters: A, B, C, D, E

Choose a derrick on your vessel and complete the following tables. (The first line in Part A has been completed as an example). Use the Cargo Gear Book for this task and check if it corresponds with reality (e.g. if a shackle mentioned in the book is actually in the appropriate position on the derrick).

	TABLE THAT REFERS TO PART "A"
78	***The gear mentioned in the second column is: cargo hook 2"***

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CARGO HANDLING EQUIPMENT

N/T	**TASK**
79	***The table included in the task is already written in English.***

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CARGO HANDLING EQUIPMENT

N/T	**TASK**
80	**TABLE THAT REFERS TO PARTS "D" and "E"**
	The table included in the task is already written in English.

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SEAMANSHIP

N/T	**TASK**
81	All cargo handling gear must be checked regularly. As far as it concerns the check on the derricks and their gear, what do the following mean and how often are they carried out? a) Inspection, b) Thorough examination. Who are these checks carried out by and how is it certified if they have been carried out? …… ……
82	You are going to replace a runner with a new one that has just been obtained. How will you certify if the new runner is suitable and what will you do in relation to the Cargo Gear Book? …… ……

83	How many parts does the Cargo Gear Book consist of and what does each part refer to? …… ……
84	What do the following mean? a) SWL, b) Proof Load. …… …… Regarding the derrick in the previous task, the SWL is …… tons and the Proof Load is …… tons.

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SEAMANSHIP

N/T	**TASK**			
85	Complete the following table. Write the Greek translation of the part mentioned in column (1) in the second column (2). Assuming that these parts have the SWL mentioned in column (3) write the corresponding Proof Load in column (4). You will find the relative information at the back of the test certificates.			
	(1) Description of item	(2) Description of part	(3) SWL TONS	(4) Proof Load TONS
	The terms mentioned are already written in English.			
86	A runner is unsuitable and has to be replaced when there is an excess of broken wires. According to which criterion will you decide that the number of broken wires is over the safety limit? …… ……			
87	You have been assigned to observe the lifting procedure of a derrick. Mention in detail the safety measures taken for preventing accidents a) Before lifting begins, b) During lifting, c) After securing the derrick in position for its operation? …… ……			

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CARGO HANDLING EQUIPMENT

N/T	TASK
88	What kind of work should be done for the maintenance of the overall derrick system? After maintenance work is completed, which items will you check to make sure: a) that it has been done properly, b) that the derrick system has been reassembled properly and is ready and secure to be used? …… ……
	BERTHING EQUIPMENT
89	Complete the table based on the sketch:

Number in sketch	English term	Greek translation
The terms mentioned in the second column are already written in English.		

The angle Θ on the anchor of your vessel is …… degrees.

Page 64

BERTHING EQUIPMENT

N/T	TASK
90	Every anchor must be marked. a) Note the letter (M) in the sketch above to show the spot where the spare anchor of your vessel is marked. b) Copy the markings of the anchor and explain their meaning. …… ……
91	Some links of the anchor chain have markings engraved on them. Choose such a link, write these markings on the following sketch and explain their meaning. Which links should have these markings according to the regulations? …… ……
92	How long is a length (shackle) of the anchor chain? …… How many shackles does the starboard anchor consist of? …….. How many shackles does the port anchor consist of? …….. How are the shackles marked (give an example for the 3rd and the 6th shackle)? …… ……
93	Copy the following items from the anchor chain certificate:
	Type of anchor …… Construction material …… Link diameter …….. Link length and breadth …… Break load …….. Break test …… Length and mass of the chain cable …….. Where is the link diameter measured? ……

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BERTHING EQUIPMENT

N/T	TASK
94	Mention at least 5 items you have to check so as to make sure that the anchor is clear and ready for letting go. …… ……
95	Mention at least 3 items you have to check in order to prevent accidents when anchoring. …… ……
96	Mention at least 5 items you have to check so as to make sure that the anchoring system is secured and ready for the sea passage. …… ……
97	Which are the safety measures for handling and using self-tensioning winches? …… ……

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	CONSTRUCTION ELEMENTS OF THE VESSEL		
98	Sketch the midship section of your vessel (you may use the midship section plan). Use numbers to show the location of various construction elements mentioned in the following table, in which you have to complete the second column (Greek translation).		
	English term	Greek term	Plate thickness or type of profile section
	The table included in the task is already written in English.		

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK		
99	Write the translation of the English terms in the following table. Sketch a side view of your vessel's stern including the details of the rudder support system. Note the numbers from the table on their corresponding spot on your sketch (if shown).		
	Num-ber on sketch	English term	Greek translation
	The table included in the task is already written in English.		

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THIS PAGE IS AVAILABLE FOR DRAWING THE MIDSHIP SECTION

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK		
100	Sketch a sectional plan of the forepeak tank showing the construction elements mentioned in the following table. Write the Greek translation in the second column (2) of the table.		
	Num-ber on sketch	English term (1)	Greek translation (2)
	The table included in the task is already written in English.		

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK
101	Sketch the view plan of the upper (main) deck and show the following details: (a) Cargo hatches, (b) The way down to the holds, (c) The location of the masts, (d) The measuring and ventilation pipes of the tanks, (e) The scuppers of the deck.

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK
102	Sketch the following on a scale (approximately).
	(a) The main longitudinal section of your vessel, on which the location of various areas and compartments must be shown and marked with numbers. Mention the meaning of the numbers in a separate table in English and in Greek, e.g. 5) No 3 Double Bottom Ballast Tank, 15) Officers Accommodation. The sketch must not be smaller than 25 cm, nor larger than 30 cm. You may use the General Arrangement Plan of your vessel.

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK
103	(b) The view plans of various decks, on which the compartments, storerooms etc. must be shown. On the same sketch, mark with different letters the location of all items you were asked to find in the task “Familiarisation with the vessel”. Mention the meaning of the letters you used, e.g. d) CO_2 fire extinguisher, in a separate table.

Page 75

CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK			
104	Complete the following table regarding your vessel and show the corresponding dimensions on the sketches.			
	English term	Greek translation	Brief definition	Your vessel's measurement
	The table included in the task is already written in English.			

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CONSTRUCTION ELEMENTS OF THE VESSEL

N/T	TASK			
105	Complete the following table regarding your vessel.			
	English term	Greek translation	Brief definition	Your vessel's capacity
	The table included in the task is already written in English.			

LOAD LINE

N/T	TASK		
106	Which dimensions are shown with numbers on the sketch below? (Imperial and Metric system). ***The table included in the task is already written in English.***		
107	What do these abbreviations stand for?		
	Abbreviations	English	Greek
	The abbreviations are already written in English		
	Which load line mark is taken into consideration in order to check potential overloading, the uppermost or the lowest one? ……		

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LOAD LINE

N/T	TASK
108	Which lines shown on the sketch of task (106) are not marked on your vessel? Why? …… ……
109	Complete the table below regarding your vessel's particulars. Write the Greek translation in the brackets provided. ***The table included in the task is already written in English.***
	Which document on your vessel are the particulars of the previous task mentioned in? What is its date of issue and until when is it valid? …… ……

Page 78

NAVIGATION

N/T	TASK	Training Officer's signature	Date
110	***Learn:*** How to determine the co-ordinates of a position on the chart and plot a position based on your co-ordinates.		
111	How to determine the plain sailing (rhumb line) and distance between two positions on the Mercator map.		
112	How to determine the magnetic declination using the chart.		
113	How to convert magnetic courses into true courses and vice versa.		
114	How to determine the magnetic compass deviation by using the deviation card and the error in combination with its variation.		
115	How to convert magnetic courses or bearings into compass courses or bearings and vice versa. How to convert compass courses or bearings into true courses or bearings and vice versa.		
116	How to convert gyrocompass courses or bearings into true courses or bearings and vice versa.		
117	How to take bearings of terrestrial or celestial bodies using the magnetic compass and the gyrocompass.		
118	How to explain the abbreviations and symbols on a nautical chart using the appropriate publication (Chart B.A. 5011 or D.M.A. 1).		
119	The basic principles of the IALA system (aids to navigation).		
120	How to keep (complete) the compass error book.		
121	How to complete the Deck Logbook.		
122	How to use maritime publications.		

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NAVIGATION

N/T	TASK	Training Officer's signature	Date
123	***Learn:***		
	How to explain without assistance the symbols and abbreviations of the chart that refer to: a) Depths, b) Hazards, c) Lighthouses, d) Floating aids (lightships, beacons, etc.).		
124	How to comprehend the data mentioned on each column in the List of Lights.		
125	How to use the Notices to Mariners to correct: a) nautical charts, b) lists of lights, c) radio beacons.		
126	How to calculate the distance of a lighthouse from the bridge of your vessel.		
127	How to measure perpendicular angles (elevation of celestial bodies, lighthouses, mountain peaks) using the sextant.		
128	How to convert relative bearings into absolute bearings and vice versa.		
129	How to read the sextant off the arc (to the right of 0).		
130	How to determine the sextant error in daytime at the horizon level and at nighttimes with the star.		
131	***Learn how to determine position:***		
	With 2 and 3 bearings.		
132	With a visual bearing and radar distance.		
133	With 2 and 3 radar distances.		
134	With two distances of the same object when the vessel is underway.		
135	With two bearings of the same object when the vessel is underway.		

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NAVIGATION

N/T	TASK	Training Officer's signature	Date
136	***Learn how to determine position:***		
	With an alignment and a bearing of another object.		
137	With an alignment and a distance.		
138	With a bearing of a lighthouse at the moment it appears in the horizon.		
139	Apply all the above-mentioned methods of determining position (N/T 131-138) at least five times each.		
140	***Learn:***		
	How to find the zone time.		
141	How to use alignments in order to calculate the error and the deviation of the compasses.		
142	How to use the time signals to determine the chronometer correction.		

143	Complete the following table.			
		Number of revolutions	Slip speed	
			0%	8%
	(1) Full ahead.			
	(2) 10 revolutions less than full ahead.			
	(3) 18 revolutions less than full ahead.			
	(4) 40 revolutions less than full ahead.			
	(5) 50 revolutions less than full ahead.			

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COMMUNICATION

N/T	TASK	Training Officer's signature	Date
144	***Learn:*** The distress signals (International Code of Signals).		
145	The rescue signals.		
146	To recognise the alphabet flags and numeral pennants of the International Code of Signals.		
147	The meaning of single letter signals.		
148	The letter spelling table and the figure spelling table (Phonetic Tables).		
149	To recognise the safety signals.		
150	The transmission procedure of a distress alert (in plain language only).		
151	To use the V.H.F.		
152	Complete the following table regarding the portable radiotelegraphy apparatus on your vessel. Where it is located …… Manufacturer …… Serial number …… Type …… Broadcast type (e.g. A2) …… Power …… Overall antenna height …… Way of rigging the antenna …… Electrical power source …… Transmitter frequencies …… Receiver frequencies …… How often is a test performed? …… Copy the (a) test and (b) operation instructions of the apparatus. If the instructions are not written in Greek, copy them in the foreign language and add their translation. …… ……		

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Radio direction finder)

N/T	TASK
153	1) Learn how to find the information needed to take a radio bearing of a radio beacon in the appropriate maritime publication. 2) Which maritime publication is used on board your vessel for doing what was mentioned above? Title: …… Year published …… 3) Complete the following table regarding your vessel's radio direction finder. a. Manufacturer …….. b. Type of antenna …… c. Way of taking bearings (acoustic, visual, automatic etc.) …… d. Serial No. …… 4) Complete the following table regarding St. Catherine's Lt. Ho. radio beacon. Radio beacon No. …… Lat.= …… Long.= …… Frequency: …… Range: …….. Sequence: …… Characteristics: …… Radio beacons in the same group: …… …….. 5) Which actions must be done in the radio station before using the RDF and why? …… ……

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Automatic pilot)

N/T	TASK
154	Complete the following information regarding the automatic pilot of your vessel. Manufacturer: …… Type: …… Which compass is it connected with? …… Which controls have to be adjusted to ensure proper steering? Which factors are considered for the adjustment of each control button? 1) …….. 2) …….. 3) …….. 4) ……..

154

Using the numbers above, write the position of each control button for the various weather conditions mentioned in the table. In column (i) for loaded condition and in column (ii) for unloaded condition.

WIND DIRECTION AND FORCE

Control button	Up to Force Beaufort 3		Force Beaufort 6 - 7					
		From the head		From the stern		From the side		
	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)
1								
2								
3								
4								

In which situations do you have to switch urgently from automatic to manual steering, who is this done by and what is required in relation to a helmsman being available?

……

……

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Echo sounder)

N/T	TASK
155	1. Learn how to use the echo sounder of your vessel. 2. Learn how to change the paper of your vessel's echo sounder. 3. Complete the following table regarding your vessel's echo sounder. a. Manufacturer …….. b. Type ……. c. Serial No. …… d. Types of indications (visual, graphic, CRT, etc.). …… e. Depth scales and units of measurement in use. i. From …… To …… ii. From …… To …… iii. From …… To …… iv. From …… To …… f. The transducer(s) is located between frames: No. …… and No. …… g. Operation voltage …… 4. In relation to the echo sounder, what precautions are required when the vessel is on dry dock? …… …… 5. Draw a schematic diagram of the echo sounder installation on your vessel and mention where each unit is located.

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Speed log)

N/T	TASK
156	1) Learn how to use it and read the speed and distance indications in all possible ways. 2) Complete the following table regarding your vessel's speed log. a) Manufacturer …….. b) Type ……. c) Serial No. …… 3) The underwater sensor (if available) of the speed log is located between frames: No. …… and No. …… 4) What precautions are required in case the vessel is sailing in very shallow water? …… 5) Describe in detail the actions required to lower the underwater sensor of your vessel's speed log (if available). …… …… 6) Draw a schematic diagram of the speed log installation on your vessel and mention where each unit is located.

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Gyrocompass)

N/T	TASK
157	1. Complete the following table regarding your vessel's gyrocompass. a. Manufacturer …….. b. Type ……. c. Serial No. …… d. Main gyrocompass location …… e. Number and location of repeaters: …… 1) …….. 2) …….. 3) …….. 4) …….. 5) …….. 6) …….. 7) …….. 8) …….. f. Electricity type and voltage used …… 2. Learn how to set the gyrocompass in operation (starting, adjustment of repeaters etc.) and how to switch it off. 3. What kind of indicators are there, if any, for checking the proper operation of the compass? What do their indications mean? …… …… 4. How is the Officer of the Watch notified if the gyrocompass develops a malfunction? …… ……

157	5. Is there any case for the gyrocompass of your vessel to develop one or more malfunctions and the Officer of the Watch not to be notified by any indications? If yes, which are these cases? …… …… 6. You are the Officer of the Watch and realise that there is a malfunction in the gyrocompass of your vessel. What will you do? …… ……

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ELECTRONIC NAVIGATIONAL EQUIPMENT (Radar)

N/T	TASK
158	1. Complete the following table regarding your vessel's radar. a. Manufacturer …….. b. Type …….. c. Serial No. …… 2. What is the longest possible distance a target may appear on your vessel's radar screen, having very good reflecting properties and the antenna being 100 metres above the surface of the sea? …… …… 3. Practise using the radar by doing the following: a) Compare the radar image with the chart and recognise the various features. b) Compare the echo of various floating targets with their real image as it is viewed from the bridge. c) Determine radar positions with: i) Distances from two or more points. ii) Distance and bearing of one point.

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ELECTRONIC NAVIGATIONAL EQUIPMENT (LORAN-C)

N/T	TASK
159	1. Complete the following table regarding your vessel's LORAN-C. a. Manufacturer …….. b. Type …….. c. Serial No. …… 2. Which data should be provided for the automatic chain selection / manual chain selection? …… …… 3. Which types of indications display the position? …… …… 4. Mention any other information it provides and the precision of each one of them. …… ……

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ELECTRONIC NAVIGATIONAL EQUIPMENT (SATELLITE)

N/T	TASK
160	1. Complete the following table regarding your vessel's SATELLITE. a. Manufacturer …….. b. Type ……. c. Serial No. …… 2. Which data should be provided to this apparatus in order to operate with precision? …… …… 3. Mention any other information it provides. …… …… 4. In which situations does the alarm sound? …… ……

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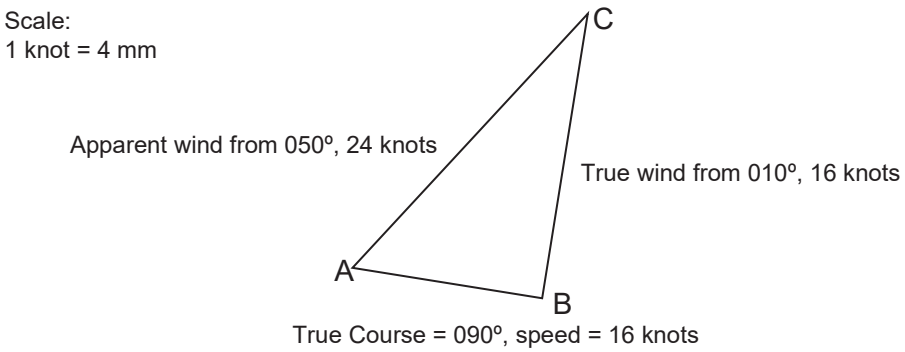
METEOROLOGY

INSTRUCTIONS FOR CARRYING OUT METEOROLOGICAL OBSERVATIONS AND COMPLETING THE TABLE (N/T 192)

1. **General Information:** The observations must be carried out at sea, once daily and always at the same time (ZT). 15 days of these observations have to be consecutive, if the duration of the voyages permits it.
2. **Cloudiness:** The amount of cloudiness is written in fractions of eight, depending on the clouds that cover the sky, e.g. 3 means 3/8.
3. **True wind:** The direction that the wind is blowing from is written on the closest ten-degree scale, e.g. 280º, 020º. The speed is written in knots using integral numbers.
   On a vessel at sea, due to her movement, the apparent wind is perceived. A simple way to calculate the data regarding the true wind is the following:
   From a random point A on the chart or the plotting paper, we draw the line AB towards the direction of the ship's course and equal to her speed and the line AC towards the direction which the wind is apparently blowing from and equal to the apparent speed in knots. Then, we join point B with point C. The direction of line BC (not CB) is the direction from which the true wind is blowing. The length of line BC measured on the same scale as lines AB and AC is the true speed in knots.
   Example: True course 090º, speed 16 knots. Apparent wind 40º on the port side of the bow (050º), speed 24 knots (force Beaufort 6). The solution displayed on the following sketch shows true wind direction 010º, speed 16 knots (approximately force Beaufort 5).



4. Weather: The following terms should be used:

Rain	Snow
Drizzle	Fog
Showers	Haze
Thundershowers	

5. Atmospheric pressure: The atmospheric pressure is written using the units of the vessel's barometer to the closest mb, mm or hundredth of the inch and corrected depending on the error and the height of the barometer from the surface of the sea. The next two columns will be completed after performing the relative conversion in mm and mb.

6. Temperatures: Only the columns of the unit used in the vessel's thermometers (F or C) are completed. A conversion is carried out to complete the next column. You may ask the engineer of the watch about the sea temperature.

7. Wave: The wave height and direction are estimated and the wave period is measured.

a) Wave height: The estimation of the wave height is complicated due to the movements of the vessel (rolling, pitching, etc.) and the local strong winds. There is a general tendency to overestimate high waves and underestimate low waves.

i) Wave length shorter than the vessel's length.

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METEOROLOGY

Sketch 1

As it is displayed in sketch 1 the wave height may be estimated by looking over the vessel's side and using a well-known distance between two points on the vessel's side as a unit of measurement.

ii) Wave length longer than the vessel's length.

Sketch 2

We are waiting for a moment that the vessel is into the sea's trough and almost without any list. While the vessel is rolling and pitching we change our eye height in such a way that the crests appear aligned with the horizon. The wave height will then be equal to the eye height from the waterline. It is essential that the vessel is not listing at all at the moment of the observation, because if the list is heavy, the estimated wave height will be larger than the real one.

The wave heights usually differ a lot from each other. The observation must be carried out for several minutes and the average height of all well-built waves (not the extreme ones) will be considered as the actual wave height. When, at the same time, there is swell, the observation becomes even more difficult. In that situation, the data of the highest wave system (sea or swell) shall be written in the table.

b) Wave period: Wave period is the mean time, in seconds, required for two successive wave crests to complete one vibration. Equipped with a chronometer, we choose an additional object, as far away as possible from the vessel's bow, as a reference point. A piece of wood, seaweed, or, if nothing is available, just the foam of the wave are suitable, as far as they can be seen for a period of time. We use the chronometer to count the seconds between two successive appearances of the reference point on the wave crest. The average time of some observations (5-6) is the period that will be written in the table.

b) Direction: Using the azimuth mirror we carry out an observation in parallel with the line of the wave crests and add or subtract 90º from the bearing. Alternatively, we may use the heading of the vessel's bow to determine the direction that the waves come from. The higher the observer is standing, the easier the observation. The average direction from several observations will be written in the table as wave direction.

N/T	TASK	Training Officer's signature	Date
161	Learn how to recognise the various types of clouds.		

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METEOROLOGY

N/T	TASK
162	***The table included in the task is already written in English.***

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METEOROLOGY

163	***The table included in the task is already written in English.***

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ENGINE ROOM

N/T	TASK
163	After having visited for training purposes the engine room of the same vessel at least 4 times, draw (without a scale) a schematic diagram of the engine room showing the location of the main engines and machinery: Main engine, reduction gears (if any), thrust bearing, boilers, coolers/condensers, hot wells, pumps, filters, diesel generators, oil-water separators, air compressors, air reservoirs, etc. (see N/T 164).

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ENGINE ROOM

N/T	TASK
164	For each one of the 4 mandatory visits to the engine room, mention the name, the rank and the duties (in detail) of each person who was keeping a watch together with you in the engine room. …… …… It is certified that the trainee carried out the following visits for training purposes to the engine room of the vessel: (a) Two complete 4-hour watches at sea. (b) On arrival in port, from Standby to Finish with engine. (c) During departure from port, from Standby to Full ahead.

Date	Voyage From, to	Starting time	Stopping time	Type of watch	Name of Engineer of the watch	Chief Engineer's signature

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ENGINE ROOM

N/T	TASK
165	Locate the batteries used as a reserve power source for the radio installation of your vessel and complete the following table. 1) Location of batteries …… 2) Number of batteries …….. 3) Type of batteries …… 4) Connecting module of batteries …….. 5) Battery cell voltage (V) …… 6) Overall voltage (V) of batteries …… 7) Capacity of one battery cell (Ah) …… 8) Overall Capacity of batteries (Ah) …….. 9) Charging power intensity (A) ……..
166	Learn how to check the electrolyte level in the battery. What kind of fluid is used to top up the battery fluid level if it is necessary? ……
167	Which hazards are caused during battery charging and which precautions must be taken? …… ……

168	Provide the following information regarding the largest generator unit on board your vessel: 1) Type of current produced (Direct, Alternating) …… 2) Number of phases …… 3) Frequency …….. 4) Voltage …… 5) Maximum permissible load …… 6) Where does the generator excitation current come from? …… …… 7) Propulsion engine horsepower …… 8) Connecting module between generator and propulsion engine. …… ……

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ENGINE ROOM

N/T	TASK
(Continued)	9) Mention if there is a commutator or rings in the generator and what they are used for. …… …… 10) Observe how the unit is set in and out of operation and describe these procedures in very few words. …… ……
169	Provide the following information regarding the main electrical power distribution panel on board your vessel: 1. How many fuses are there and how many amperes are they rated for? …… …… 2) What is the automatic switch used for and how many amperes is it adjusted to operate at? …… …… 3) What kind of measuring instruments are there and what is the operation scale of each one of them? …… …… 4) What purpose does each of the above-mentioned instruments serve? …… ……

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ENGINE ROOM

N/T	TASK
170	…… ……
171	For charging the batteries, direct current is required. Describe the rectification system used for charging the emergency batteries on board your vessel. If there is no rectification system available, mention why. …… ……

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ENGINE ROOM

<table>
<tr><th>N/T</th><th>TASK</th></tr>
<tr><td rowspan="11">172</td><td>During one of your visits to the engine room while the vessel is at sea, observe the indications on the instruments and fill them in the following table:</td></tr>
<tr><td>Date: …… Time: …… Name of Engineer of the Watch ……..</td></tr>
<tr><td>
<table>
<tr><th>MEASUREMENT</th><th>Instrument indication</th><th>Units</th></tr>
<tr><td>Boiler Pressure</td><td></td><td></td></tr>
<tr><td>Main Engine RPM</td><td></td><td></td></tr>
<tr><td>Main engine lubricating oil pressure (ICE)*</td><td></td><td></td></tr>
<tr><td>Main engine lubricating oil temperature (ICE)*</td><td></td><td></td></tr>
<tr><td>Main engine cooling water temperature (ICE)*</td><td></td><td></td></tr>
<tr><td>Cylinder combustion temperature (ICE temperature gauges)*</td><td></td><td></td></tr>
<tr><td>Fuel temperature</td><td></td><td></td></tr>
<tr><td>Sea temperature</td><td></td><td></td></tr>
<tr><td>Condenser vacuum</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>* Note
In case your vessel does not use an ICE propulsion engine (ICE = Internal Combustion Engine), the above-mentioned indications must refer to the largest ICE diesel generator.</td></tr>
</table>

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CARGO VESSELS
CARGO SPACE – CARGO HANDLING

N/T	TASK
173	What type of closing (securing) system is used for the cargo holds on the deck and the tween-deck? Describe it briefly and explain how water-tightness is ensured. …… ……
174	What is the purpose of the cargo battens at the sides of the cargo hold? What are they made of? What is their breadth and thickness? …… ……
175	Describe in detail those areas you will check if you are ordered to inspect the safety measures for preventing accidents during the following operations and situations. a) Opening a cargo hold. b) Temporary closing of a cargo hold due to suspension of the loading operations. c) A cargo hold where cargo handling operations are going on through the night. d) The cargo handling equipment (derricks or cranes) of the vessel during loading operations. …… ……

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CARGO VESSELS
CARGO SPACE – CARGO HANDLING

N/T	TASK
176	How is the tween-deck water conveyed to the bilge? How often and in what way is this system checked? …… ……
177	Sketch the last transom (vessel with side bilges) or the bilge well showing the suction (without a strainer) and the other construction details. If the vessel is fitted with a bilge well, what are its dimensions and capacity? …… ……
178	How often and in what way is the proper operation of your vessel's bilge pumping system inspected and checked by the crew? …… ……
179	Are there fixed lights inside the cargo hold? If yes, why is it essential for them to be fitted with airtight glasses that must be kept in excellent condition? …… ……

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CARGO VESSELS
CARGO SPACE – CARGO HANDLING

N/T	TASK
180	What type of ventilation system for the cargo holds is there on your vessel? If it is a mechanical system, how many m^3 or ft^3 of air per minute can it handle? …… ……
181	How many Deep tanks are there on your vessel and what is their capacity in m^3 and ft^3? …… ……
182	What measures should be taken so that the cargo loaded in the Deep tanks does not get wet after a wrong operation of the cargo lines? …… ……
183	How many lines (pipelines and suction lines) serve the Deep tank? Draw a diagram of the lines inside the Deep tanks. …… ……

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CARGO VESSELS
CARGO SPACE – CARGO HANDLING

N/T	TASK
184	What measures are taken for preventing sea pollution when bunkering? …… ……
185	What is the dunnage and what is it used for? What kind of material is used and what are its dimensions? …… ……
186	What safety measures should be taken when two derricks are used in combination (union purchase)? Why? …… ……
187	What is the valve chest? Draw a valve chest as it can be seen externally from above and note which line each valve serves. …… ……

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CARGO VESSELS
CARGO SPACE – CARGO HANDLING

N/T	TASK
188	What is the difference between a valve of the bilge line and a valve of the double bottom tank line? Why is there this difference? …… ……
189	Describe in detail the preparations of the largest cargo hold of your vessel for loading the most sensitive cargo your vessel has carried (This task should be carried out during the last month of the trainee's seagoing service). …… ……
190	Choose a cargo hold where two derricks operate. What is the SWL of each derrick? What is their SWL when the derricks are used in combination (one derrick is arranged over the hold and the other is overside - union purchase). How did you find the SWL of the latter case? Why is there a difference from the first case? …… ……

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CARGO VESSELS
PIPELINES

N/T	TASK
191	From a safety point of view, what is the importance of the bilge sounding pipes? …… ……
192	Draw a sketch of the vessel's deck and indicate the position of all the sounding and ventilation pipes. Mark the ventilators with the letter V and the sounding pipes with the letter S and a number. In a separate table write what each one of them is used for, e.g. V5, double bottom N:2, S10 hold bilge N:3. …… ……

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CARGO VESSELS
PIPELINES

N/T	TASK
193	Draw a diagram of the pipelines that serve the double bottom tanks and the bilges. On this diagram, also show the separation of various areas (e.g. tanks, cargo holds, etc.), as well as the engine room with the location of the valve chests without the rest of the pipelines and any other details. Use various colours for each pipeline network and note their meaning in a legend. …… ……

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
194	Complete the following table regarding the tanker you are working on: 1. Number of cargo tanks: …… 2. Overall capacity of cargo tanks: …… m^3 …….... U.S.A. barrels. 3. Number of tanks used exclusively for ballast: …… 4. Overall capacity of tanks used for ballast: …… 5. Ballast weight for a normal voyage: …….. tons. 6. Ballast weight for bad weather conditions: …… tons.
195	Why is there a limit in the loading speed? Which factors does it depend on? …… ……
196	Write a short explanation of the following terms: ***The terms mentioned in the task are already written in English.***

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
	The terms mentioned in the task are already written in English.

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
197	How is the atmosphere of a tank checked for the presence of explosive gases? What instruments are used on your vessel and what exactly do their indications mean? How is the proper operation of the instruments checked? In which situations is one type of instrument used and in which situations is the other type used (only for tankers with inert gas system)? …… ……
198	Mention in detail all the safety measures taken in order for a person to enter a cargo tank. Include all preparations made for the rescue of the person in case there is an accident in spite of the measures taken. …… ……

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
199	What is the Hydrogen Sulphide? What are the dangers from a cargo that contains Hydrogen Sulphide (H_2S) and which are the corresponding safety measures? …… ……
200	How is your vessel's pump room ventilated? …… ……
201	What safety measures must be taken before a person enters the pump room? …… ……
202	Where exactly can you stop the cargo pumps immediately in case of an emergency? …… ……
203	Mention in detail your actions in case of a tank overflow during loading. …… ……

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
204	How are the hoses checked before tank washing with portable washing machines begins? Why? …… ……
205	Why is it not permitted to disconnect the hose of the washing machine before taking the corresponding machine out of the tank? …… ……
206	Mention in detail all actions that should be taken for the rescue of a person who has been affected by gases. …… ……
207	You have been ordered to inspect the vessel before loading or discharging or ballasting operations begin, to make sure if all safety measures against a) fire, b) pollution have been taken. Describe your actions in detail. …… ……

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
208	What kinds of hazards are caused when there is no suction in a centrifugal pump? When do cargo pumps on your vessel automatically stop (number of revolutions)? How often is the operation of the relevant mechanism checked? …… ……
209	When and under which circumstances is it permitted to discharge dirty ballast at sea? (Acts of God are excluded) …… ……

210	Which conditions do electrical devices (e.g. flashlights, portable VHF etc.) have to fulfil so that their use can be permitted on board tankers that transfer flammable goods? How can you make sure if such a device fulfils these conditions? …… …… the pressure / vacuum relief valve and explain its operation. What pressure and vacuum have the valves
211	Draw the section of on board your vessel been adjusted at?

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TANKERS
CARGOES – SAFETY – PIPELINES – CARGO HANDLING

N/T	TASK
212	How is the surface separating oil from water in the slop tank of your vessel established? If a special instrument is used, describe its operation in detail. …… ……
213	You are going to measure the ullage of a cargo tank. What safety measures will you take against the hazards caused by the presence of static electricity? When are these measures necessary? …… ……
214	Draw a diagram of the cargo pipelines located inside the cargo tanks. Using various colours, illustrate the following on the diagram: - the tank bulkheads. - the main cargo lines. - the stripping lines. - the location of the valves, each type in different colour (e.g. suction valves, etc.). - the location of the pump room(s) without any pipelines. Explain the meaning of the colours you are using in a legend.

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