

Standard Maritime Communication

Phrases 1

زبان تخصصی ۱

مدرس صالحی

I.R.I.S.L maritime training institute, Bushehr Center

I.R.I.S.L Training Institute, Bushehr Center

Letters and Numbers List

Character	International code word	Pronunciation
A	Alfa - Alpha	AL FAH
B	Bravo	BRAH VOH
C	Charlie	CHAR LEE
D	Delta	DELL TAH
E	Echo	ECK OH
F	Foxtrot	FOKS TROT
G	Golf	GOLF
H	Hotel	HOH TELL
I	India	IN DEE AH
J	Juliatt - Juliet	JEW LEE ETT
K	Kilo	KEY LOH
L	Lima	LEE MAH
M	Mike	MIKE
N	November	NO VEM BER
O	Oscar	OSS CAH
P	Papa	PAH PAH
Q	Quebec	KEU BECK
R	Romeo	ROW ME OH
S	Sierra	SEE AIR RAH
T	Tango	TANG GO
U	Uniform	YOU NEE FORM
V	Victor	VIK TAH
W	Whiskey	WISS KEY
X	X-ray	ECKS RAY
Y	Yankee	YANG KEY
Z	Zulu	ZOO LOO

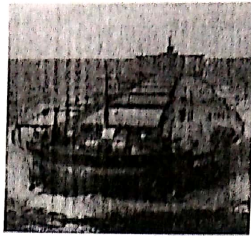
Letters and Numbers List

Character	International code word	Pronunciation
0	NADAZERO	NAH-DAH-ZAY-ROH
1	UNAONE	OO-NAH-WUN
2	BISSOTWO	BEES-SOH-TOO
3	TERRATHREE	TAY-RAH-TREE
4	KARTEFOUR	KAR-TAY-FOWER
5	PANTAFIVE	PAN-TAH-FIVE
6	SOXISIX	SOK-SEE-SIX
7	SETTESEVEN	SAY-TAY-SEVEN
8	OKTOEIGHT	OK-TOH-AIT
9	NOVENINE	NO-VAY-NINER
DECIMAL POINT	DECIMAL	DAY-SEE-MAL
FULL STOP	STOP	STOP

Types of ships

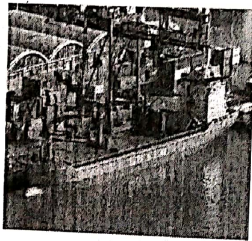
Bulk Carriers:

البحر العربي
Bulk Carriers are ships specially designed to carry homogenous unpacked cargo in bulk. Cargo such as coal, iron ore, grain. Bulk Carriers are commonly categorized by their size.



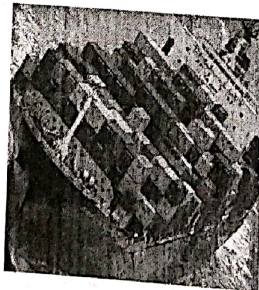
General Cargo Ships:

General Cargo Ships are capable of carrying different cargoes in bales, drums or in palletized form. They are usually small ships. They have multiple decks inside the cargo holds for segregation purposes.



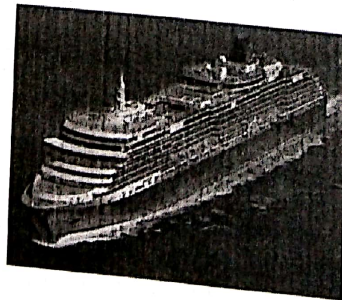
Container Ships:

Container Ships are ships designed to carry standard sized containers. Containers are stacked in the ship's holds as well as on the deck and secured to the ship using a locking mechanism. Two of the most common standard sizes of containers are the Twenty Foot (TEU) and Forty Foot (FEU) units. The capacity of a Container Ship is usually expressed by the number of Twenty Foot Equivalent Units (TEU) that can be carried by the ship.



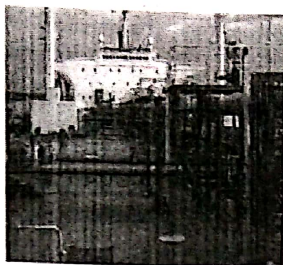
Passenger Ships:

These ships are used by passengers either for the purpose of travel between two ports or for pleasure. Some Passenger Ships are capable of carrying cars, vehicles and small quantities of cargoes along with the passengers



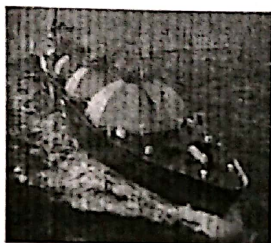
Tankers:

Tankers carry liquids such as crude oil, petroleum products, various oils and liquid chemicals in bulk. This type of cargo is loaded in specialized tanks. Pipelines and pumps are provided to load and discharge the cargo. Depending on the type of cargo, tankers are further classified, for example: Crude oil tanker, Product tanker, Gas tanker and Chemical tanker.



Gas Tankers:

Gas Tankers are ships that carry liquefied gases such as butane and methane. These gases are kept in a liquid state in specially designed tanks maintained at very high pressure or very low temperature, or a combination of both.



Ro-Ro Ships:

RO-RO or Roll-On/Roll-Off Ships have large ramp doors at the bow or stern to allow vehicles to drive in and out of the ship from the jetty. These ships have many long and wide decks to allow cars and commercial vehicles to be loaded and secured safely.



Reefer Ships: Refrigerated Cargo Ships (Reefers) are designed to carry cargo that needs to be kept frozen or chilled; this includes fruits, meat, juices.

Heavy Lift Vessels: Ships that can load very heavy cargoes on the deck or in the cargo hold are known as Heavy Lift Vessels. They can carry a variety of unusual cargoes including heavy machinery, yachts, drilling rigs, barges and bridges. Their decks and hold tank tops are designed to withstand the high load density of cargoes.

LASH: LASH (Lighter aboard Ships) carry large barges loaded with cargo. These barges are loaded and unloaded on to the ship using huge gantry cranes onboard the ships, alongside a jetty, or at anchorages.

Livestock Carriers: Livestock Carriers are designed for transportation of animals and livestock like sheep, goats and cows. They have specially designed compartments for the carriage and care of the animals.

Departments onboard

In general, the ranking system on merchant vessels is mainly divided into following categories:

1. Deck Department

2. Engine Department
3. Catering Department

The captain or master is the ship's highest responsible officer, acting on ^{از طرف} behalf of the ship's owner. The Captain (or Master) of the ship is at the top of all the ranks, holds the highest post of the ship's crew, and is accountable to the owner of that ship.

The Deck Department

- Chief Officer/Mate
- Second Officer/Mate
- Third Officer/Mate
- Deck Cadets

Deck Rating

- Bosun سرملوان
- Welder/Fitter/Carpenter
- Able Seaman (AB)
- Ordinary Seaman (OS)

chief officer's staff officers and

Chief Officer / First Mate: Chief Officer is the second responsible position after the Captain of the vessel. He acts as the Head of the deck department and mainly engages in the cargo ^{بار} affairs. He also ^{نظارت کردن} supervises the vessel's crew and looks after the various deck operations. The Chief Mate is the ship security officer (SSO), and is concerned about the welfare of crew and passengers on board. Additionally, the correct working of the hull, the accommodation section

Second Officer/ Mate: He is the ^{اصلی} primary officer behind the navigational section of the vessel (Navigation, chart preparation and paperwork) and third-in-command. His main responsibility is the standard 12- 4 navigation watch duty. **Second Officer** is known as medical officer

Third Officer/ Mate: he is appointed as the fourth-in-command. Usually, the Third Officer handles the standard 8-12 watch duty and mainly responsible for maintenance of LSA (Life Saving Appliances) and FFA (Fire Fighting Appliances) under supervision of chief Officer. ^{assistant of the second}

Deck Cadet: The role of a deck cadet is quite important on ships as he can be assistance to all the officers. He is basically new to the ship and is on ships for the training purpose. A newly appointed Deck Cadet needs to report to the Chief Officer (or Training Officer) of the ship. A Cadet must try to gain as much of knowledge as possible. He ^{همراهی کردن} accompanies an officer while they stand in watch.

Bosun: He takes care of the crew on the deck and also assists chief officer in daily routines of the ships.

Able seaman (A.B): experienced ratings and is ^{قابل اعتماد} eligible to assist the deck department. They can do most of the jobs especially crane operation, bridge watches and sheering.

Ordinary seaman (O.S): OS is usually normal ratings with less or no work. He should be normally engaged on normal works

The Engine Department

- Chief Engineer
- Second Engineer

} Bosun
 } Carpenter (Deck Fitter)
 } AB
 } OS

very important rank

- Third Engineer
- Fourth Engineer
- Fifth Engineer/ Engine Cadet
- Electrical Officer

Engine Room Rating

- Fitter
- Wiper /Oiler

Chief Engineer: Chief engineer is the head of the engineering department on a vessel. Chief engineer gives orders for operation and maintenance of ship's machinery system and is responsible for the engine room department. *He is technical advisor of master*

Second Engineer: He is associated with the day-to-day activities in the engine room, and he is accountable to the Chief Engineer. He supervises the proper functioning of all engine room machinery systems and also assigns jobs to the other engine officers and crew. The Second Engineer generally keeps watch on the engine room, during the day time.

Third engineer: This is the next position after the Second Engineer, and is assigned jobs to look after machinery ordered by the chief engineer, along with daily watch keeping. He reports to the second engineer.

Fourth Engineer: This is the most junior rank in the engineering department. The Fourth Engineer is concerned about the correct working of the machinery systems assigned to him and also carries out watch keeping. He reports to the second engineer.

Fifth Engineer/ Engineering Cadet: Fifth engineer is a trainee under the Second Engineer officer, and he assists and learns while observing and carrying out activities in the engine room. He would accompany a senior officer (mostly second engineer) during the watch duty. All the engine room ratings report to the second engineer.

The Catering Department

- Cook (chief cook)
- Assistant Cook (Galley Boy)
- Steward

GALLEY DEP

CH/COOK

← SAL-1 GALLEY

← SAL-2 BOY

Cook: It is his duty to prepare meals regularly for the crew and passengers. He is also in charge of the food stores. The Cook also inspects the equipment needed to keep the ship clean and uncontaminated in the galley area.

Assistant Cook: He assists the cook in preparation of meals and managing provision.

Steward: The steward, is assigned task including serving meals on time, sweeping and maintaining the living quarters of the officers.

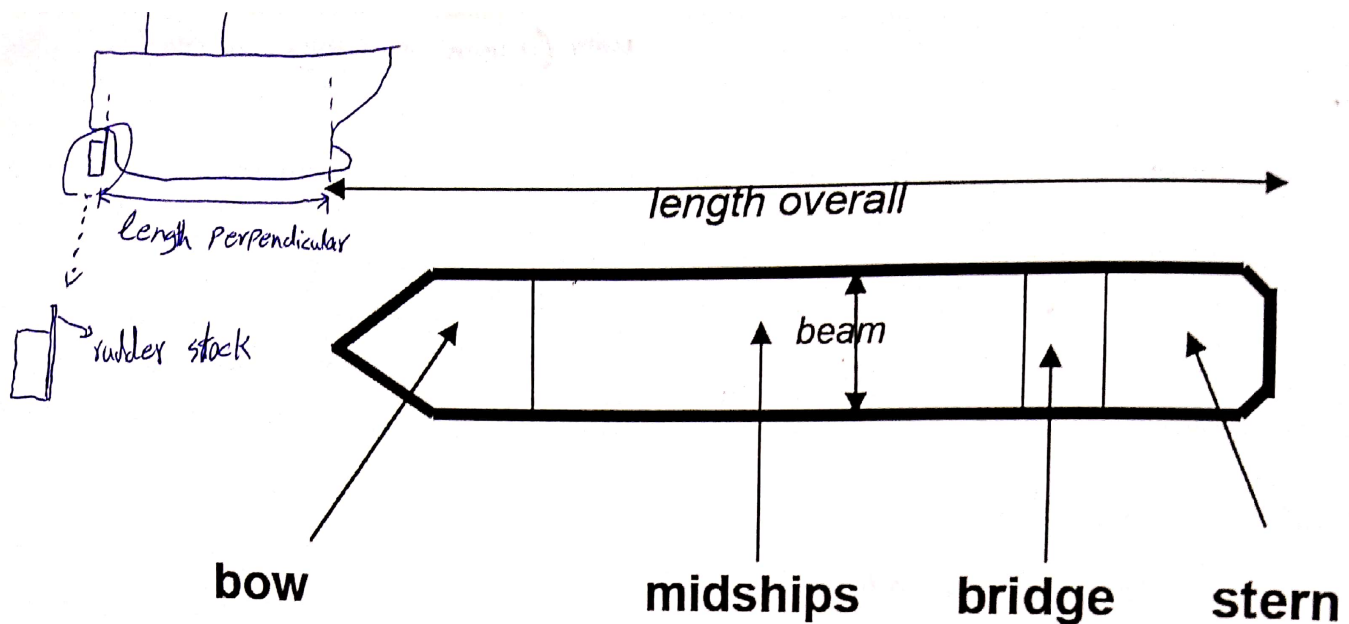
Ship parts

*Accommodation
is living quarter*

every where which crew

live

V



Bow -Foreward End of the vessel

Stern -after or Back End of vessel

Midship -at or near the middle point of a ship Length

Length over All (L.O.A)-the Length of ship measured from extreme forward End to aftermost point of stern.

Bridge -The Bridge is the command center of the ship. It is usually the highest portion within the ship's superstructure. Navigation and command center of the vessel

Engine Room -The Engine Room is a space where the main and auxiliary engines are located.

Accommodation -The Accommodation consists of spaces onboard the ships which are set apart for the crew.

Cabin -Cabins are the rooms or compartments for personnel use. A room or living compartment for passengers or crew

Porthole-Portholes are the windows in the cabins.

Alleyway-The Alleyway, or Passageway, is the name for the enclosed corridors in the accommodation areas of the ship.

Galley -The Galley is the kitchen area used for food preparation.

Mess Room-The Mess Room is the place where the crew eats their meals.

Funnel -The Funnel is the large exhaust pipe for the ship's engine room and machinery fumes.

Propeller -The Propeller is similar to a fan. Rotary motion of the propeller blades in the water provides the force for the ship's movement.

Rudder -The function of the Rudder is to steer the ship. The Rudder is usually located in the water flow aft of the propeller.

Monkey Island -The Monkey Island is the uppermost deck on the superstructure upon which the main mast and various aerals are located.

Forecastle (Foc'sle)-The Forecastle is the slightly raised structure at the forward part of the ship. It is a mooring station used for housing windlass machinery and as a storeroom.

Windlass -The Windlass is the machinery for lifting and lowering the anchor cable.

Bulbous Bow-The Bulbous Bow is a protruding bow that is designed to break up the bow wave before it reaches the ship.

کمان برآمدہ

Anchor -The Anchor is used to keep the ship fixed within a small area in the water. It gets its holding power due to its weight and design plus the added weight of the cable it is attached to.

Anchor Windlass - A windlass is a winch-like device used to assist in the raising of the anchor.

Superstructure -The Superstructure houses the crew accommodation, offices, stores etc.

Crane -The Crane is a machine for lifting heavy objects or cargo.

Main Deck -The Main Deck is the uppermost deck that runs the entire length of a ship.

Movements of the vessel

Ahead -Ahead is the forward movement of the ship.

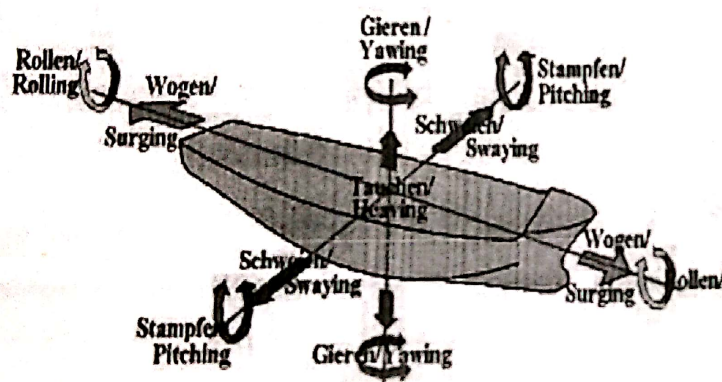
Astern -Astern is the aft or reverse movement of the vessel.

Athwart ships -Athwart ships is the sideways movement of the ship. This movement plays an important part in berthing and close interaction between ships.

Rolling -The side-to-side (athwart ship) motion of a ship along the vertical line is known as rolling.

Pitching -The up and down motion of a ship forward and aft is known as pitching

Yawing -The port and starboard movement of bow along the water plane is known as yawing.



Directions

Aft or Stern -The Aft, or Stern, is the rear end of the ship. Forward or Bow

The Forward or Bow - is the front end of the ship.

Mid ship - the area in the center of the ship

Port Side -The left-hand side of the ship looking forward, toward the bow or stem

Starboard Side -The right-hand side, looking from aft forward

Port Bow -The forward part of the ship on the port side

Starboard Bow -The forward part of the ship on the starboard side

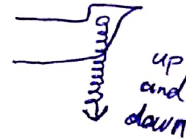
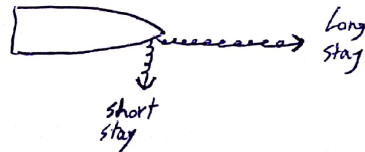
Port Quarter -The aft part of the ship, usually from the stern to the accommodation, on the port side

Starboard Quarter -The aft part of the ship, usually from the stern to the accommodation, on the starboard side

Abeam -Abeam is the direction at right angles to the forward aft line of the ship, usually from the center of the ship.

Athwart ship -it is the sideways movement of the ship

more than 120°
long stay



Reporting

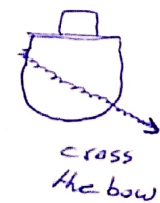
A lookout is a person at the ship's bridge who maintains a continuous watch of the sea to report any kind of hazard that can be an obstacle in the navigation and cause harm to the ship

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

The lookout should inform the officer on watch when he observes any of the following:

- Any kind of floating object
- Navigation mark or lights
- Any type of distress signal from other ships or ports
- Land
- Ice, irrespective of size or form
- Any type of ship irrespective of its size
- Sandbags or prominent navigational features
- Problem with any of the ship's navigation systems, including navigational lights
- Any kind of hazards or derelicts that can be dangerous to the ship's navigation

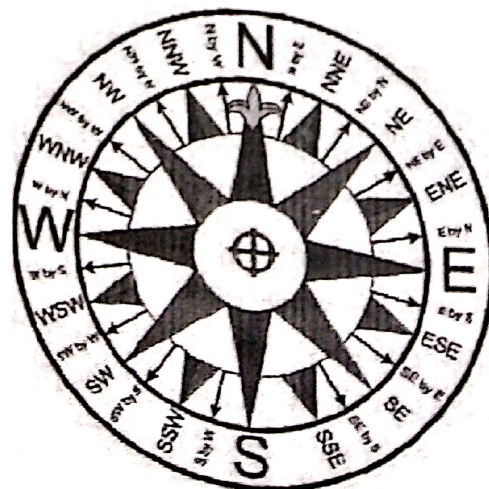
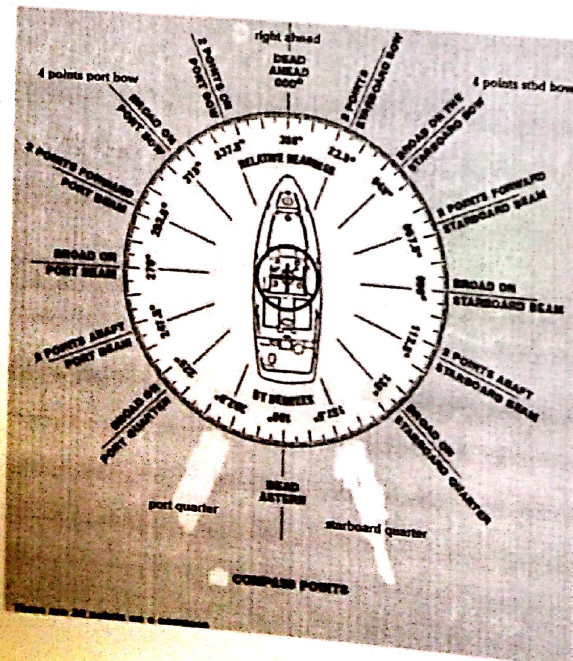
نیل میخ کن دریا فرو می آید
هم کنار و هم زنجیر



The compass is divided into 32 points.

Each point of compass is $11^{\circ} 15'$ or 11.25°

The OOW should consider the look-out as an integral part of the Bridge Team and utilise the look-out to the fullest extent



types of ship } A1 →
A2 → MF
English terms A3
A4

میر چلی کتای که فقط یک ترحمات است و نیاز دارد.

لن رنج HF بیشتر ۱۰۰۰ - تا رنج MF ۱۰۰۰

Global trip ۷۰۰۰ و ۷۰۰۰ می تواند بود

Global trip حتی ۹۰° و تا قطب

The terms are part of the language used by many of those who "man" the merchant ships of the world.

To the great extent, the same "terms" are used by English-speaking navies.

Since many maritime and naval traditions have been greatly influenced by the traditions and language of the British Navy, English has become the international language of the seas. Every seaman should be familiar with nautical terms and definitions.

A ship is a seagoing vessel capable of making extended ocean trips. A boat is smaller and is normally designed for short trips in protected areas.

The word 'vessel' includes every description of water craft, including non-displacement craft, WIG craft and seaplanes, used or capable of being used as a means of transportation on water.

'power-driven vessel' means any vessel propelled by machinery.

'Sailing vessel' means any vessel under sail provided that propelling machinery, if fitted, is not being used.

'Vessel engaged in fishing' means any vessel fishing with nets, lines, trawls or other fishing ^{means, devices} Apparatus which restrict maneuverability, but does not include vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability

The word 'seaplane' includes any aircraft designed to manoeuvre on the water.

'Wing-In-Ground (WIG) craft' means a multimodal craft which, in its main operational mode, flies in close proximity to the surface by utilizing surface-effect action.

"Welcome aboard" is the phrase that traditionally greets anyone boarding a ship for the first time.

Deck is that portion of a ship on which one stands or walks, corresponding to the floor of a building.

Gangway is an opening in the side of a ship that allows one to go on or off; it sometimes refers to the entire entranceway.

Walking toward the front or bow of the ship, one is walking forward;

Walking toward the rear or stern of a ship, he is walking aft. Amidships refers to the middle of a ship.

Standing on the deck, facing toward the bow, on the right is the starboard side of the ship, and on the left is the port side of the ship.

Cabins are individual rooms in a ship. The walls are called bulkheads; there are various openings in a ship such as doors, hatches, portholes, manholes etc. ^{tank entrance}

Passageways run fore and aft in a ship, connecting spaces; these can also run from one side of the ship

To the other, or athwart ships

→ transverse direction

fore and aft = longitudinal

Match the words on the left with definitions on the right

- | | |
|-------------------|---|
| 1. Bow or stern | a) the back portion of a ship |
| 2. Forward | b) An opening in the deck |
| 3. Stern <i>a</i> | c) crafts operating near to the water surface |
| 4. Aft <i>d</i> | d) the direction toward the stern |

Choose the best answer:

1. in maritime language, "Welcome aboard" means welcome to the

- a) Class room
- ☒ b) Ship
- c) Sea

2. How can I get to the -----I need to wash my hands.

- a) Water
- b) Deck
- c) Head

3. In order to board a ship you have to go from the pier onto the

- a) Deck
- b) Cruiser
- c) Cabin

Jetty

Thru

4. "Man" used in the second line of the text means.....

- a) Not a woman
- b) A strong sailor
- c) Supply crew for a ship

5. What does "term" in the third line of the text mean?

- a) Time
- b) Word
- c) Language

6. A "deck" refers to

- a) The area on right side of the ship
- b) The front part of a ship

c) The part of the ship on which we can stand or walk and includes the cargo holds.

Put the words in order to make complete sentences:

1) Instructions/ please/ the/ first/ read.

Please read the instructions first

2) To/ turn/ get/ port/ finally/to / the/ cabins/to/ the/ side.

Turn to the port side to get to the cabins finally.

3) Not/ command/ do/ enter/ the/center/without/permission.

Do not enter the command center without permission.

4) Life/ avoid/ in/ putting/ your/ danger.

Avoid putting your life in danger

Match the two halves of the sentences:

1) You must C

2) Please help d

3) Stop b

4) You should finish a

a) the exam in one hour.

b) ^{disturb} interrupting the Job.

c) put your things in the cabin.

d) me to replace this light bulb

Complete the following sentences with the proper imperative form of the word in parentheses.

1. Please *don't enter* (Not/enter) the officer's cabin.

2. Please *try* (Try) to remember all the places in the ship.

3. In order to board the ship; they *Pass* (Pass) through the gangway last night.

4. A vessel fishing with net which *restricts* Maneuverability is called 'Vessel engaged in fishing' (restriction)

OBTAINING A SHIP'S POSITION

When a ship is proceeding in sight of a coastline, her navigator will normally never be in Doubt of her exact position

The large scale chart of the area gives him the exact position of all landmarks, lighthouses, lightships, etc. By taking compass bearings of suitable Objects on the shore and transferring these bearings on to the chart, the point of intersection of the bearings, called a fix, gives the ship's position. Using three position lines will increase the accuracy of position

Since all courses and bearings laid down on a chart are true, the bearings taken with the compass must be corrected before being drawn in on the chart, by the application of variation and deviation in the case of a magnetic compass, and of any gyro error in the case of a gyroscopic compass.

$\text{variation} + \text{deviation} = \text{compass Error}$

Other method of fixing a ship's position when in sight of land is by sextant angles. If the Height above sea level of an object on land, such as a lighthouse or church tower, is known, a Vertical sextant angle (VSA), by means of simple mathematics, will give the distance between the Observer and the object, and when combined with a compass bearing, will provide a position on the chart by bearing and distance

$\text{magnetic north} \rightarrow \text{compass north}$

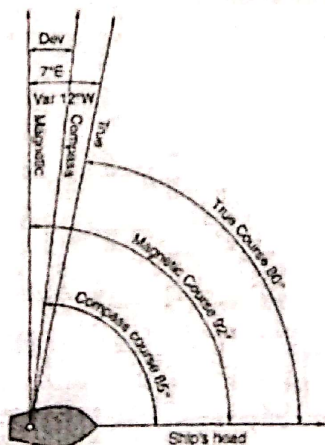
The most common device which is used on compass for obtaining bearings is the bearing or azimuth circle.

Modern aids to navigation (navigational aids) make the task of the coastal navigator even easier. Radar is a means of providing the navigator with vital information in darkness or in fog, enabling him to see the land and in many cases providing him with an accurate bearing and distance of Landmarks which are marked on his chart

Hyperbolic navigation, such as the Decca Navigator system, is another means of accurate fixing

A wise navigator, unless he has no alternative, does not use buoys as marks to fix his ship's position.

Buoys can drag their moorings and thus be out of position and, being unmanned, can give no warning of any error.



When latitude and longitude are used for position, these shall be expressed in degrees and minutes (and Decimals of a minute if necessary), North or South of the Equator and East or West of Greenwich

Example: "Dangerous wreck in position 15 degrees 34 minutes north, 061 degrees 29 minutes west."

When the position is related to a mark, the mark shall be a well-defined charted object. The Bearing shall be in the 360 degrees notation from true north and shall be that of the position

FROM the mark

Example: "Your position bearing 137 degrees from Big Head lighthouse distance 2.4 nautical miles."

The bearing of the mark or vessel concerned is the bearing in the 360 degree notation from north (true north unless otherwise stated), except in the case of relative bearings. Relative bearings can be expressed in degrees relative to the vessel's head. More frequently this is in relation to the port or starboard bow.

Bearing also may be measured from true north, magnetic north or compass north which will be named accordingly

Courses

Always to be expressed in 360 degree notation from north (true north unless otherwise stated)

Distances

Preferably to be expressed in nautical miles or cables (tenths of a mile) otherwise in kilometers or meters, the unit always to be stated.

Speed

How fast the vessel is moving. To be expressed in knots

Choose the correct answer

1-onlybearings can be transferred on nautical charts.

- a-magnetic b-compass c-true d-gyro

2-during coastal navigation, sextant can be used for

- a-taking bearing of lights b-taking distances from objects
c-checking the compass error d-taking vertical sextant angle from terrestrial objects

3-which item is not recommended to be used for position fixing

- a-bearings from fixed lights b-distances from fixed lights
c-vertical sextant angle of charted towers d-bearings from floating buoys

4- If a bearing is measured with reference to the our ship's longitudinal axis, it is termed a

- a-true bearing b-relative bearing
c-aspect d- gyro bearing

5- the course which is measured with respect to the magnetic north, it is a

- a-compass course b-compass azimuth
c-magnetic course c-magnetic azimuth

Put the words in order to make complete sentences:

1) Compass bearings/ on chart / be/ corrected for / should / before applying /errors

Compass bearings should be corrected for errors before applying on chart.

2) Be used/ position fixing / for / coastal waters /can / Radar / in

Radar can be used for position fixing in coastal waters.

Match each term on the left with its synonym on the right:

a- vessel's position 5

b- Bearing 3

c- Piloting 4

d- Error 7

e- Navigational aids 1

f- Shoot (the object) 6

g- Accurate 2

دقت Safety onboard

1- nav.aids

2- precise → دقیق

3- take the bearing

4- coastal navigation

5- fix

6- azimuth

7- mistake → گناه

Safety onboard ships is an important issue. Normally at sea and often very far from any possible assistance, there is nobody who can be called upon for help.

Of course, the ship should be of good design, well maintained and in seaworthy condition with sufficient stability, watertight and weather tight and properly equipped.

Prevention through recognition, rectification and avoidance of unsafe actions and/or situations at all times and at all places on board by all personnel and passenger, is of utmost importance.

Courses and regular drills are held in order to ensure that the crew is safety conscious.

The crew is trained to use the right equipment in case of emergency.

To work professionally with all equipment, the ship's crew needs to be educated and everyone must have certificate of competency.

Safety clothing: It is a legal requirement that you wear the proper safety clothing and footwear in those parts of the ship where certain hazards exist.

Hard (safety) Helmet and proper protective (safety) shoes are the minimum for working on external decks.

Inflatable (working) lifejackets are supplied in the Laboratory and will also be required to be worn in certain situations when working at or near the ship's side or stern. In addition to working lifejackets, certain operations will require safety harnesses to be worn if the master deems it necessary.

The motion of a ship will increase the risk of slips, falls and muscular injuries. Relatively simple tasks may require two people so always ask for assistance if in doubt. Always undertake a risk assessment prior to lifting or moving anything on board the vessel.

Do not attempt to interfere with any electrical supplies or fittings on board at any time.

Donning = wearing life jacket

Lifesaving Appliances:

Lifeboats: Lifeboats have to be installed on each side of the ship. The boat/ boats on each side shall be capable of accommodating everybody on board

Life Rafts: Inflatable life rafts are located on each side for the whole complement.

Life Jackets: Life jackets are provided for everybody on board. They must have a light and whistle. They are usually stored in the cabins, but sometimes in boxes near the lifeboats.

Life Buoys: A number of Life buoys, depending on the ship's length are positioned around the vessel and hooked on the handrails. On both bridge wings there has to be a life buoy, that when released, drops by gravity into the sea. a floating smoke light and a light signal Attached to these buoys

Immersion Suit: some immersion suit has to be worn together with a life jacket. The insulating quality of the immersion suits has to be such that the body temperature does not drop more than 2 degrees Celsius after 6 hours in water with a temperature between 0 and 2 degrees Celsius.

Wheel orders

Autopilot can be used in 2 to 7 knot and higher speed.

? Shallow water = very low depth area

• Definition

A helmsman is an individual who is responsible for the steering of any type of transportation used in or on the water. He called upon specifically to guide the ship as it enters a port and prepares to dock, or during the departure process when it is necessary to successfully clear the docking area or anywhere which deemed necessary.

In the merchant marine, the person at the helm is usually an able seaman, particularly during ship arrivals, departures, and while maneuvering in restricted waters or other conditions requiring precise steering. An ordinary seaman is commonly restricted for steering. *AB must be used.*

A professional helmsman maintains a steady course, properly ^{doing} executes all rudder orders, and communicates to the officer on the bridge utilizing navigational terms relating to ship's heading and steering

A helmsman relies upon visual references, a magnetic and gyrocompass, and a rudder angle indicator to steer a steady course. The mate or other officer on the bridge directs the helmsman aboard merchant or navy ships for proper execution of the orders which are to be followed.

Clear and exact communication between the helmsman and officer on the bridge is essential for safe navigation and ship handling. Subsequently, a set of standard steering commands and wheel order which is written in the Standard Maritime Communication Phrased (SMCP) must always be practice on board

Proper responses by the helmsman and ^{replay} acknowledgment by the ^{bridge} conning officer are widely recognized in the maritime industry to avoid miss-communication.

The helmsman repeats any verbal commands in order to demonstrate that the command is heard and understood.

The International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW) requires that helmsman must be able to understand and respond to helm orders in English

Steering a ship effectively requires skills gained through training and experience. An expert helmsman has a keen sense of how a particular ship will respond to the helm or how different sea conditions impact steering. For instance, experience teaches a helmsman the ability to correct the rudder in advance of a ship substantially falling off course. This requires the capacity to anticipate the delay between when the helm is applied and when the ship responds to the rudder. Similarly, a skilled helmsman will avoid overcompensating for a ship's movement caused by local conditions, such as wind, swells, currents, or rough seas.

All given wheel orders should be repeated by the helmsman and the officer of the watch To ensure that they are ^{executed} carried out correctly and immediately

All wheel orders should be held until countermanded. The helmsman should report immediately if the vessel does not answer the wheel. *زمان پاسخ ندادن*

The word "course" and "heading" may be differing in meaning. "Course" is the angle which is intended to be followed by vessel (the requested angle by duty office/master or pilot) but "heading" is the ships head at present time.

In some conditions, the Heading may be the same as Course.

Pilot "What is your heading?" Or "What is your heading now?"
Wheelsman "My heading is ... degrees."

Pilot "What is The Course?"

Wheelsman "My Course is ... degrees."

How to announce the course or heading:

The course is 186 degrees = the course is one eight six degrees

When the order is received from the officer, the wheel man should repeat the same order loudly to ensure that officer has mentioned his correct intension and also the wheel man understood the order correctly. *accept*

When it is confirmed by officer, the wheelman follows the requested command and when order is completely done, he should again repeat the job to remind that it is done.

Order

Meaning

1. Midships

Rudder to be held in the fore and aft position.

Pilot "midships"

Wheelsman "midships sir"

When the rudder angle indicator is put exactly on amidships:

Wheelsman "wheel on midships sir."

2. Port / starboard

Rudders to be put on ... degree port / starboard

Pilot "port 10"

Wheelsman "port 10 sir"

When the rudder angle indicator is put exactly on 10 degrees port side:

Wheelsman "wheel on port 10 sir"

3. Hard -a-port / starboard

Rudder to be held fully over to port / starboard.

Pilot "Hard starboard"

Wheelsman "Hard starboard sir"

When the rudder angle indicator is put fully to starboard side:

Wheelsman "wheel on port 10 sir"

4. Steady

Reduce swing as rapidly as possible and keep the heading on a special degree

Pilot "Steady on 140"

Wheelsman "Steady on 140 sir"

When the swing is controlled and ships head is maintained on the requested heading:

Wheelsman "Heading is 140 sir."

The order of "steady" may be used in different situations:

"Steady as she goes" control the swing to maintain the present heading

"Steady on 140" control the heading to maintain the heading of 140 degrees

5. Nothing to port/starboard

Avoid allowing the vessel's head to go to port/starboard

The wheel man should control the heading and in no circumstances, the vessel should be allowed to swing to port/starboard. it does not mean that the vessel should alter course to opposite side.

Check the swing of the vessel's head in a turn.

6. Meet her (check her)

PIUOTING = *forward steering*
steering by sight: at number 8

This order is normally being used to check and control the ship swinging. in some cases, when the vessel is turning due to stbd / Port wheel and the officer wants to control the ships movement and turning, he may order to change the wheel to opposite side (Port /stbd) for about 5-10 degrees.

Wheel on stbd 20 and vessel is turning

Pilot "check her"

Wheelsman "check her sir"

When the the wheel is changed from stbd 20 to port 5:

Wheelsman "wheel on port 5 sir."

7. Ease to five / ten

Reduce amount of rudder to 5/10 and hold

This order is used to reduce the amount of rudder angle but not to other side.

Wheel on stbd 20 and vessel is turning

Pilot "Ease to five"

Wheelsman "Ease to five sir"

When the wheel is changed from stbd 20 to stbd 5:

Wheelsman "wheel on stbd 5 sir."

8. Keep the buoy/ mark/ beacon/ ... on the bow

This type of steering is normally called "steering by sight". The officer gives order to keep the ships head so as to follow direction toward a light, buoy etc.

In this case the helmsman should use proper and appropriate wheels to follow the requested command.

9. Report if she does not answer the wheel. (No respond to the wheel)

Respond of vessel to the wheel and rudder movements depend on the movement of vessel through the water. in the cases when the engine has stopped and propeller not turning, respond of vessel to wheel is gradually reduced and after a while there will be no respond. The wheelman should inform the officer immediately.

step by step

10. Give her more rudder

Increase the rudder angle. The command is given with the rudder already over some degrees, when it is desired to make the ship turn more rapidly. The command should be followed by the exact number of degrees desired for the turn.

Wheel on stbd 10 and vessel is turning

Pilot "Give her more rudder"

Wheelsman "more rudder"

MOORED vessel: made fast to the shore connected to the harbour by mooring ropes.

Mooring Ropes: Ropes that connect ship to port

When the wheel is changed more rudder on the same side:

Wheelsman "wheel on stbd 20 sir."

11. Finished with wheel, no more steering.

It means the job is steering is completed and wheel man is no more required.

Helmsman of merchant and military ships will remain responsible at the helm for a set period of time before being relieved by another person.

i.e. = that is
E.g. = For example

Change of wheel man to be by permission of duty officer or master. The person being relieved will complete any course change or other critical maneuver that is in progress before handing over the helm. The helmsman handing over the helm will inform the relief helmsman of any rudder commands in place and present conditions.

E.g. "Steering 180 or wheel on starboard 20"

The relief helmsman is obligated to repeat the course being steered or other rudder command in order to demonstrate an understanding of the situation at the helm.

^{sure} The relief helmsman will then take the helm and repeat all the information to ensure that he knows what to steer while on watch.

The relieved helmsman should stay in the command center for a while to ensure that new person is able to perform his duty then he may seek permission to leave.

An example of this would be:

Helmsman:

Helm is being relieved... (Changing the wheelman)

Steering two-four-eight per gyro

Rudder amidships

Relief:

Helm has been relieved... (Wheelman changed)

Steering two-four-eight per gyro

Rudder amidships

The officer on watch will usually always reply with "very well" or "ok" or "thanks"

Exercise:

State the standard marine phrases for the following wheel and engine orders.

Rudder to be held fully over the port *hard a port*

15° of port rudder to be held *Port 15*

Rudder to be held in the fore and aft position *midship*

10° of starboard rudder to be held *stbd 10*

Rudder to be held fully over to the starboard *hard stbd*

Reduce amount of rudder from stbd 20 to stbd 5° and hold *Ease to 5*

Reduce swing as rapidly as possible *check hel / meet hel*

Movement of wheel is no longer required *finish the wheel*

Put the words in order to make complete sentences:

1- Essential / officer / Clear / is / between / helmsman / communication / and
clear communication is essential between helmsman and officer

2- Must / be able / to understand / helm / orders / in English / helmsman
to understand

3- Wheel man / repeat / loudly / the wheel / the / should / order
the wheelman should repeat the wheel orders loudly

4- Wheel / The wheelman / should / when / is not / the officer / responding / inform / immediately
The wheelman should inform the officer when not responding immediately

Standard engine orders

Any engine order given should be repeated by the person operating the bridge telegraph(s) and the Officer of the watch should ensure the order is carried out correctly and immediately

ORDER

1. Full ahead
2. Half ahead
3. Slow ahead
4. Dead slow ahead
5. Stop engine(s)
6. Dead slow astern
7. Slow astern
8. Half astern
9. Full astern
10. Emergency full ahead
11. Emergency full astern
12. Stand by engine

(Engine-room personnel fully ready to maneuver and bridge manned to relay engine orders.)

13. Finished with engine(s)

(Movement of engine(s) no longer required.)

In vessels fitted with twin propellers, the word "both" should be added to all orders affecting both Shafts, e.g. "Full ahead both", and "Slow astern both", except that the words "Stop all engines" should be used, when appropriate

When required to maneuver twin propellers independently, this should be indicated, i.e. "Full ahead starboard", "Half astern port", etc.

Where bow thrusters are used, the following orders are used:

Bow thrust full /half to port side.

Bow thrust full/half to starboard side.

Stern thrust full /half to port side.

Stern thrust full/half to starboard side.

Bow /stern thrust stop

Responses

When the answer to a question is in the affirmative, say:

"Yes..." - followed by the appropriate phrase in full.

When the answer to a question is in the negative, say:

"No..." - followed by the appropriate phrase in full.

When the information requested is not immediately available, say:

"Stand by" - followed by the time ^{lets} interval within which the information will be available.

When the information requested cannot be obtained, say:

"No information."

When an INSTRUCTION (e.g. by a VTS-Station, Naval vessel or other fully authorized personnel) or an ADVICE is given, respond if in the affirmative:

"I will/can ..." - followed by the instruction or advice in full; and,

If in the negative, respond:

"I will not/cannot ..." - followed by the instruction or advice in full.

Example: "ADVICE. Do not overtake vessel ahead of you."

Respond: "I will not overtake vessel ahead of me."

The responses to orders of special importance, however, are given in wording in the phrases concerned