

ارزشیابی شایستگی اقیانوس‌شناسی کاربردی

<p>۱ شرح کار:</p> <ul style="list-style-type: none"> ■ بررسی اقیانوس‌های جهان ■ عوامل ایجاد کننده جریان‌های اقیانوسی ■ علت جریان‌های اقیانوسی (دریایی) ■ آثار جریان‌های اقیانوسی بر روی آب و هوای کره زمین ■ آثار جریان‌های آب عمیق بر روی آب و هوا 																																															
<p>۲ استاندارد عملکرد:</p> <ul style="list-style-type: none"> ■ بررسی و اهمیت اقیانوس‌های جهان ■ شاخص‌ها: ■ بررسی انواع اقیانوس‌ها و عوامل ایجاد کننده انواع جریان‌های اقیانوسی 																																															
<p>۳ شرایط انجام کار، ابزار و تجهیزات:</p> <ul style="list-style-type: none"> ■ شرایط: کلاس همراه با پردنگار ■ ابزار و تجهیزات: انواع نقشه‌ها 																																															
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پودمان ۴

کسب اطلاعات فنی ۱



کسب اطلاعات فنی شایستگی درک و دریافت دانش فنی از منابع مختلف فارسی و غیر آن است. با پیشرفت، گسترش و تنوع منابع، ضروری است که برای تحقق اهداف و توسعه شایستگی‌های خود به منابع و مراجع غیرفارسی نیز مراجعه کنیم. در این راستا، پودمان حاضر به همین منظور در کتاب دانش فنی تخصصی طراحی و تألیف شده است.

برقراری ارتباط بین افراد شاغل در رشته‌هایی که به دلیل ماهیت‌شان نیازمند به تبادل اطلاعات هستند، اهمیت ویژه‌ای دارد.

با توجه به گستردگی علوم و فنون دریایی و همچنین توسعه روز افزون حمل و نقل و تجارت دریایی، فراگیری زبان انگلیسی به صورت عمومی و تخصصی برای همه دریانوردان ضروری است. در کنار این موارد، حضور کارکنان با ملیت و زبان‌های مختلف و همچنین ارتباط شناورها با یکدیگر در کنار عملیات راهبری و هدایت کشتی، تخلیه و بارگیری و نیاز به برقراری ارتباط با کارکنانی که به زبان‌های مختلف سخن می‌گویند، سبب شد تا «سازمان بین‌المللی دریانوردی»، زبان انگلیسی را به عنوان زبان استاندارد و رسمی برای همه رشته‌های دریایی انتخاب و تصویب نماید.

با توجه به اهمیت موضوع، هنرجویان پس از آشنایی با اصطلاحات مهم این رشته در این پودمان، قادر خواهند بود مفاهیم بیان شده را (چه به صورت نوشتار و چه به صورت گفتار) به درستی درک کرده و مفاهیم اولیه مورد نظر خود را به زبان انگلیسی بیان کنند.

بدیهی است هدف از ارائه این پودمان، نه تدریس زبان انگلیسی بلکه کسب مهم‌ترین اطلاعات فنی گذشته تخصصی، حرفه‌ای خود است که از طریق خواندن منابع ذکر شده می‌توان به این هدف دست یافت. البته برای پشتیبانی این امر در کتاب همراه هنرجو که خود نیز عملاً یک دانشنامه ویژه است، بیشتر به خواندن درست لغات، جملات و درک مطالب ارائه شده در کاتالوگ‌ها، بروشورها و کتاب‌های راهنمای کاربری تأکید شده است. پودمان ذکر شده حاوی یک لوح فشرده (CD) آموزشی نیز می‌باشد. در این لوح، مطالب ارائه شده در درس به زبان اصلی بیان می‌شود تا راهنمایی برای خواندن و گفتار هنرجویان این رشته باشد.

Lesson 1

Routine Marine Conversation 1

1. Ship to Ship Communication

Iranian warship:Unknown vessel in position $26^{\circ} 20.7' N$, $055^{\circ} 25.3' E$, this is Iranian warship calling you on channel 16. Do you read me? Over.



Puelo:Iranian warship, this is Puelo. Over.

Iranian warship:Puelo, this is Iranian warship. Change to channel 14. Over.

Puelo: Iranian warship, this is Puelo. Changing to channel 14.Over.

Iranian warship:Puelo, this is Iranian warship on channel 14. Over.

Puelo:Iranian warship, this is Puelo. Go ahead. Over

Iranian warship:Puelo, this is Iranian warship. What is your nationality?. Over.

Puelo:Iranian warship, this is Puelo. I am Liberian Over.

Iranian warship:Puelo, this is Iranian warship What type is your ressel? Over.

Puelo:Iranian warship, this is Puelo. This is a carago ship. Over.

Iranian warship:Puelo, this is Iranian warship. Thank you sir. Have a good watch. Channel 16.Out.

Puelo: Iranian warship, this is Puelo. Thank you. Channel 16. Out.



A. Complete the conversation. Then practice with a partner.

A: What is your.....?

B: I am.....(Iran)

A: Whatis your vessel?

B: This is a cargo ship.

B. **Pair work** Take turns asking the questions in part A. Use the information from the following chart.

country	Ship's type
Great Britain	Container carrier
Greece	Bulker/bulk carrier
Panama	Tanker
Norway	VLCC(very large crude carrier)
Japan	Tug
China	Cattle ship
Malta	Car carrier(Ro-Ro)
Singapore	Dredger

2. Let's Learn

VHF Procedure Format

STEP 1: Initial call

STEP 2: Respond to call

STEP 3: Indicate working VHF channel

STEP 4: Agree working VHF channel

STEP 5: Switch over

STEP 6: Transmit the message

STEP 7: Respond to the message

STEP 8: Repeat the Response

STEP 9: Wait on the working channel for a short period



STEP10: Go back to channel 16

Pair work Write the correct numbers next to the following sentences to put them in order according to the above mentioned steps.

- Roger; You have Norwegian nationality. Over
- Channel 16. Out
- I am Norwegian. Over
- Shift to channel 14. Over
- Motor tanker Marika, this is Bow Victor. Over
- Roger; Channel 14. Over
- Bow Victor, this is Marika. Go ahead. Over
- What's your nationality? Over

3. Reading

Commercial Vessels:

Commercial vessels or merchant ships can be divided into three broad categories: cargo ships, passenger ships, and special-purpose ships. Cargo ships transport dry and liquid cargoes. Dry cargo can be transported in bulk by bulk carriers, packed directly onto a general cargo ship in break-bulk, packed in intermodal containers as aboard a container ship, or driven aboard as in roll-on roll-off ships. Liquid cargo is generally carried in bulk aboard tankers, such as oil tankers, chemical tankers and LNG tankers although smaller shipments may be carried on container ships in tank containers.

Passenger ships range in size from small river ferries to giant cruise ships. This type of vessel includes ferries, which move passengers and vehicles on short trips; ocean liners, which carry passengers on one-way trips; and cruise ships, which typically



transport passengers on round-trip voyages promoting leisure activities aboard and in the ports they visit. Special-purpose vessels are not used for transport but are designed to perform other specific tasks. Examples include tugboats, pilot boats, rescue boats, cable ships, research vessels, survey vessels, and ice breakers.



A Pairwork According to the article, which of these statements are probably true? Check (✓) the statements. What information helped you determine this? Underline the information in the article.

- 1 Commercial vessels and merchant ships are the same.
- 2 Cargo ships transport both dry and liquid cargos.
- 3 Liquid cargo is transported only aboard tankers.
- 4 Ferries carry passengers on long trips.
- 5 Cruise ships are designed to perform specific tasks.
- 6 A rescue boat is a special-purpose vessel.

B Pairwork Talk about these questions. Explain your answers.

- 1 What kinds of materials can a tanker transport?
- 2 What points should be taken into consideration to avoid the danger of flammable cargos?

4. Nautical Terms

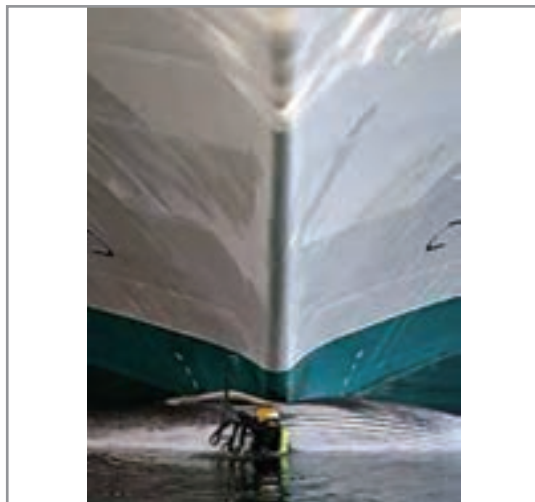
Bow

- 1) The front part of a ship.
- 2) The foremost outboard part of a ship.



Stem

The bow of a ship, referring to the timber between the forward end of the keel and the deck.



Stern

The back portion of a ship.



Lesson 2

Routine Marine Conversation 2

1. Ship to Ship Communication

Iranian warship has called **Mandarin Grace**, and they have both changed to channel 14.

Iranian warship: Mandarin Grace, this is Iranian warship. What is your nationality? Over.

Mandarin Grace: Iranian warship, this is Mandarin Grace. I am Singaporean. Over.

Iranian warship: Mandarin Grace, this is Iranian warship.

What is your MMSI? Ove

Mandarin Grace: Iranian warship, this is Mandarin Grace.

My MMSI¹ is 563862000. Over.

Iranian warship: Mandarin Grace, this is Iranian warship.

What is your IMO² number? Over.

Mandarin Grace:Iranian warship, this is Mandarin Grace.

My IMO number is 9569267. Over.

Iranian warship: Mandarin Grace, this is Iranian warship.

What is your international call sign? Over.

Mandarin Grace:Iranian warship,this is Mandarin Grace. My call sign is 9V8352. Over.

Iranian warship:Mandarin Grace, this is Iranian warship. Thank you for your cooperation.

If you find any suspicious or illegal activity in the Persian Gulf, you are requested to contact Sepah navy on channels16 or 72. Out.

Mandarin Grace: Iranian warship, this is Mandarin Grace. Roger sir; Channel 16. Out.



1. An **MMSI** (Maritime Mobile Service Identity) is a unique nine-digit number which is sent in digital form over a radio frequency channel in order to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations, and group calls. Only one number is assigned to all applicable electronics on the vessel, such as an AIS transponder, DSC Radio, and EPIRB.

2. The **IMO**(International Maritime Organization) **number** is made of the three letters “IMO” followed by the seven-digit number assigned to all ships when constructed. This is a unique seven digit number that is assigned to propelled, sea-going merchant ships of 100 GT and above. It serves to identify ships and is not changed when the ship’s owner, country of registry or name changes.

Write questions to match these statements. Then compare with a partner.

- 1? It is 9004815.
- 2? I have Panamanian nationality.
- 3? My ship's name is Aspam Sea.
- 4? It is 353431000.
- 5? It is 9HZB8.

2. Let's Learn

Spelling of Letters

Letter	Code	Letter	Code	Letter	Code	Letter	Code
A	<u>A</u> lfa	H	Hot <u>e</u> l	O	<u>O</u> scar	V	<u>V</u> ictor
B	<u>B</u> ravo	I	<u>I</u> ndia	P	<u>P</u> apa	W	<u>W</u> hisky
C	<u>C</u> harlie	J	<u>J</u> uliet	Q	<u>Q</u> uebec	X	<u>X</u> -ray
D	<u>D</u> elta	K	<u>K</u> ilo	R	<u>R</u> omeo	Y	<u>Y</u> ankee
E	<u>E</u> cho	L	<u>L</u> ima	S	<u>S</u> ierra	Z	<u>Z</u> ulu
F	<u>F</u> oxtrot	M	<u>M</u> ike	T	<u>T</u> ango		
G	<u>G</u> olf	N	<u>N</u> ovember	U	<u>U</u> niform		

Pair work Take turns asking this question. Use the information from the box.

A: Spell out your ship's name.

B: Ok. I spell, Charlie-India-Tango-Uniform-Sierra.

Bow Cheetah	CSL Ride	Mozah
Abadan	New Dynamic	Marika

A: Spell out your ship's name.

B: Ok. I spell, First group: *Bravo-Oskar-Whisky*. Second group: *Charlie-Hotel-Echo-Echo-Tango-Alfa-Hotel*.

Number	Spelling	Pronunciation
0	zero	<u>Z</u> EERO
1	one	WUN
2	two	TOO
3	three	TREE
4	four	<u>F</u>OWER
5	five	FIFE
6	six	SIX
7	seven	<u>S</u> EVEN
8	eight	AIT
9	nine	<u>N</u>INER
1000	thousand	<u>T</u>OUSAND

Spelling and Pronunciation of digits and Numbers

A few digits and numbers have a **modified** pronunciation compared to general English:

Numbers are to be spoken in separate digits:

“WUN-FIFE-ZEERO” for 150

“TOO decimal FIFE” or “TOO point FIFE” for 2.5

Note: Attention! When rudder angles, e.g. in wheel orders, are given, say:

“Fifteen” for 15 or “Twenty” for 20, etc.

Pair work Take turns asking this question. Use the information provided in the box.

145°, 380°, 295°

070°, 290°, 045°

A: What's your course?

B: My course is 145° (WUN-FOWER-FIFE) degrees.

3. Reading

Types of warships 1

There are many types of naval vessels currently and through history. Modern naval vessels can be broken down into three categories: surface warships, submarines, and support and auxiliary vessels. Modern surface warships are generally divided into six main categories, which are: aircraft carriers, cruisers, destroyers, frigates, corvettes, and amphibious assault ships. Battleships form a seven category, but are not in current service with any navy in the world.



Most military submarines are either attack submarines or ballistic missile submarines. The development of submarine-launched nuclear missiles and submarine-launched cruise missiles gave submarines a substantial and long-ranged ability to attack both land and sea targets with a variety of weapons ranging from cluster bombs to nuclear weapons.



Most navies also include many types of support and auxiliary vessels, such as minesweepers, replenishment ships, and hospital ships which are designated for medical treatment facilities.



A. Find words 1-8 in the text and match them to their meanings. Use a dictionary.

- | | |
|-----------------|---|
| 1 facility | a. large in size, value or importance; considerable. |
| 2 assault | b. an object fired at during shooting practice. |
| 3 weapon | c. the buildings, equipment and services provided for a particular purpose. |
| 4 replenishment | d. relating to or belonging to the armed forces. |
| 5 substantial | e. a violent attack. |
| 6 target | f. any object used in fighting or war such as a gun, bomb, sword, etc. |
| 7 military | g. relating to military ships or belonging to a country's navy. |
| 8 naval | h. act of resupplying, acting filling up again. |

B. Read the article. Tick (✓) the correct sentences. Cross(×) the incorrect ones.

- | | |
|--|--------------------------|
| 1 Modern surface warships are broken down into three categories. | <input type="checkbox"/> |
| 2 Amphibious assault ships are no longer in use. | <input type="checkbox"/> |
| 3 Submarines are able to attack both land and sea targets. | <input type="checkbox"/> |
| 4 Submarines can launch cruise missiles but they cannot launch ballistic missiles. | <input type="checkbox"/> |
| 5 Replenishment ships are a type of support vessels. | <input type="checkbox"/> |

4. Nautical Terms

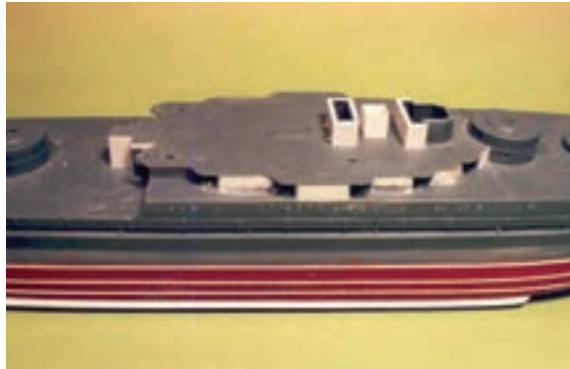
Quarter

The stern part of a vessel on either side of the rudder.



Amidships

The area between front and back of a ship.



Beam

The width of a ship at her widest part.



Lesson 3

Routine Marine Conversation 3

1. Ship to Ship Communication

An Iranian navy warship has called a tanker, and they have both changed to channel 11.

Iranian navy warship: Motor tanker Gulf Glory,
this is Iranian
navy warship hailing on
channel 11.
How do you read me? Over.

Persian GULF Glory: Iranian navy warship,
this is motor tanker
Persian Gulf Glory. I read you loud and
clear. Over.

Iranian navy warship: Gulf Glory, this is Iranian navy
warship. Spell your ship's name
phonetically. Over.

Persian GULF Glory: Iranian navy warship, this is Gulf
Glory. I spell, first Group: second group:
Gulf- Oscar-Lima-Foxtrot.

Papa-Echo-Roma-Sierra-India-Alfa-third-November.
group: Gulf-Lima-Oscar- Romeo-Yankee. Over.

Iranian navy warship: Gulf Glory, this is Iranian navy warship. What was your last port of call?
Over.

Persian GULF Glory: Iranian navy warship, this is Gulf Glory. My last port was
Al Ahmadi, Kuwait. Over.

Iranian navy warship: Gulf Glory, this is Iranian navy warship. How many crewmembers do
you have on board? Over.

Persian GULF Glory: Iranian navy warship, this is Gulf Glory. I have 23 crewmembers on
board. Over.

Iranian navy warship: Gulf Glory, this is Iranian navy warship. Channel 16. Out.

Persian GULF Glory: Iranian navy warship, this is Gulf Glory. Channel 16. Out.



A. Complete the conversations. Then practice with a partner.

1 A: What was your and what is yourport of call?

B: My.....port was Jabal Ali and my.....port ofis Karachi.

2 A: How many..... do you have on board?

B: I have 23, including ship's master.

3 A: How do you me?

B: I you loud and clear.

B. **Pair work** Take turns asking the question in part A1. Use the information which follows.

Last port	Next port
Fujairah	Karachi
Dammam	Bombay
AlJubail	Panama
RasTanura	AlAhmadi
Assaluyeh	Ras Al Khafji

2. Let's Learn

Methods of calling unknown vessels:

Calling an unknown vessel using her **Lat and **Long**.**

Example:

Vessel in position 29 (TOO-NINER) degrees 11(WUN-WUN) minutes North, 049(ZEERO-FOWER-NINER) degrees 52(FIFE-TOO) minutes East, This is Sepah Navy warship calling you on channel 16. Over.



Pair work Take turns calling unknown vessels using their latitude and longitude. Use information provided in the following chart.

Vessel calling	Vessel called
Arabian Venture	26° 14' N, 055° 55.3' E
Venus Triumph	25° 46.5' N, 054° 51' E
Homa	26° 09.7 'N, 055° 50.8' E
Mercy Wespom	26° 20' N, 054° 45' E
Sepah navy warship	26° 03.2' N, 055° 17.6' E

Example:

Vessel in position 26 (TOO SIX) degrees 14 (WUN FOWER) minutes North, 055 (ZEERO FIFE FIFE) degrees, 55.3 (FIFE FIFE decimal Tree) minutes East, this is Arabian venture calling you on channel 16. Over.

Methods of calling unknown vessels:

Calling an unknown vessel using her **bearing** and **distance**.

Example:

Vessel your position is bearing 015 degrees from RasTanura, distance 8 nautical miles, this is IRGCN patrol boat calling you on channel 16. Over.



Pair work. Take turns calling unknown vessels using their bearing and distance from the given points.

Vessel calling	Vessel called
Sepah Navy warship	350°, 8 Nm – Larak lighthouse
Iranian Navy warship	260°, 4 Nm – Hengam lighthouse
Sepah station	330°, 10 Nm – Didamar light
BandarAbbas port station	220°, 8 Nm – The Greater Tunb lighthouse
Imam Khomeini port station	240°, 12 Nm – Lavan lighthouse
Rajaei port station	180°, 7 Nm – Kish lighthouse

Example:

Vessel in position 350 degrees, 8 nautical miles from Larak lighthouse, this is Sepah Navy warship on channel 16. Over

3. Reading

Types of warships 2

An aircraft carrier is a warship designed for a primary mission of deploying and recovering aircraft, acting as a seagoing airbase. Aircraft carriers thus allow a naval force to show air power worldwide without having to depend on local bases for conducting aircraft operations. They have evolved from wooden vessels, used to deploy balloons, into nuclear-powered warships that carry dozens of fixed- and rotary-wing aircraft.



A cruiser is a type of warship. The term has been in use for several hundreds of years, and has had different meanings throughout this period. During the Age of Sail, the term ‘cruiser’ reflected a type of mission - independent scouting, attacking or commerce protection - fulfilled by a frigate, which were the ‘cruising warships’ of a fleet.



er’ reflected a type of mission - independent scouting, attacking or commerce protection - fulfilled by a frigate, which were the ‘cruising warships’ of a fleet.

From the middle of the 19th century, ‘cruiser’ became a classification for the ships intended for this kind of role, though cruisers came in a wide variety of sizes, from the small protected cruiser to armored cruisers which were as large, though not as powerful, as a battleship.



By the early 20th century, cruisers could be placed on a consistent scale of warship size, smaller than a battleship but larger than a destroyer. In 1922, the Washington Naval Treaty placed a formal limit on cruisers, which were defined as warships of up to 10,000 tons displacement carrying guns no larger than 8 inches in caliber.



In the later 20th century, the outdatedness of the battleship left the cruiser as the largest and most powerful surface combatant. The role of the cruiser varied according to ship and navy, often including air defense, commerce protection and shore bombardment.

A. Choose appropriate words from the parentheses to fill the blanks.

1 An aircraft carrier is a (warship, merchant ship, support ship) whose main (motion, mission, missile) is to carry (small ships, aircraft, soldiers) near the region of operation and act as a seagoing..... (ship, aircraft, airbase)

2 In the early 19th century, commerce protection mission was (designed, fulfilled, evolved) by (frigates, submarines, cruisers) which were the “cruising warships” of a (flotilla, subdivision, fleet)

3 The..... (displacement, complement, caliber) limit that the Washington Naval Treaty placed on cruisers was up to 10, 000 tons.

4 In the late 20th century when battleships became (powerful, outdated, updated), cruisers were left as the largest and most powerful surface combatants.

B. Read the article. Tick (✓) the correct statements. Cross (×) the incorrect ones. Then compare with a partner.

- 1 An aircraft carrier is a mobile airbase.
- 2 Aircraft carriers have developed from metal vessels.
- 3 Before the middle of the 19th century, cruisers conducted the mission of commerce protection.
- 4 A destroyer is larger than a cruiser.
- 5 Now cruisers are the most powerful surface combatants.

4. nautical terms

Abeam

To the side of a ship, or in a direction 90 degrees off the bow or stern.



Mast

A vertical pole on the center line of the ship.



Lesson 4

Routine Marine Conversation 4

1. Ship to Ship Communication

In the following, you can see a nearly complete sample of a routine conversation with a merchant ship in the Persian Gulf. Sepah navy warship is trying to communicate with an unknown ship.

Sepah Navy warship: East bound vessel on my port bow, this is Sepah Navy warship calling you on channel 16. Over.

Daffodil: Sepah Navy warship, this is motor vessel Daffodil. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Shift to channel 77. Over.

Daffodil: Sepah Navy warship, this is Daffodil. Shifting to Channel 77. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship calling you on channel 77. Do you read me? Over.

Daffodil: Sepah Navy warship, this is Daffodil. I read you broken and unreadable on this channel. Please suggest another channel. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Advise try channel 12. Over.

Daffodil: Sepah Navy warship, this is Daffodil. Roger sir; channel 12. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship calling you on channel 12. How do you read me? Over.

Daffodil: Sepah Navy warship, this is Daffodil. I read you loud and clear. Go ahead. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. We are conducting a security operation in the area; hence you are requested to answer my following questions. Over.



Daffodil: Sepah Navy warship, this is Daffodil. Roger sir; Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Spell out your ship's name. Over.

Daffodil: Sepah Navy warship, this is Daffodil. I spell: Delta-Alfa-Foxtrot - Fox trot-Oscar-Delta-India-Lima. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Request your nationality. Over.

Daffodil: Sepah Navy warship, this is Daffodil. I have Maltese nationality. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. What is the nationality of your ship's master? Over.

Daffodil: Sepah Navy warship, this is Daffodil. Ship's master is German. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Request your MMSI, IMO number and call sign. Over.

Daffodil: Sepah Navy warship, this is Daffodil. MMSI is 256630000, IMO number is 9209324 and my call sign is 9HZD8. Over.



Sepah Navy warship: Daffodil, this is Sepah Navy warship. What type is your vessel? Over.

Daffodil: Sepah Navy warship, this is Daffodil. This is a tanker ship. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. What was your departure and what is your destination? Over.

Daffodil: Sepah Navy warship, this is Daffodil. My departure was Dammam and my destination is Karachi. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Request your port of registry, Over.

Daffodil: Sepah Navy warship, this is Daffodil. My port of registry is Malta. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. What is your cargo? Over.

Daffodil: Sepah Navy warship, this is Daffodil. Cargo is crude oil. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. How many crewmen do you have on board? Over.

Daffodil: Sepah Navy warship, this is Daffodil. Including master, I have 26 crew men on board. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Do you have any security teams on board? Over.

Daffodil: Sepah Navy warship, this is Daffodil. Negative sir. No security teams on board. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Do you have any children or women on board? Over.

Daffodil: Sepah Navy warship, this is Daffodil. Negative sir. Over.

Sepah Navy warship: Daffodil, this is Sepah Navy warship. Thank you. Sepah Navy is responsible for establishing peace and security in the area, so in case of any danger or problem in the Persian Gulf, you can call Iranian warships on channel 16 for security and safety assistance. Out.

Daffodil: Sepah Navy warship, this is Daffodil. Roger; Out.

A. Write questions to match these statements. Then compare with a partner.

1? There are 23 crewmen on board including ship's master.

2? Negative sir. No security team on board.

3? My cargo is grain.

4? You are broken and unreadable.

5? It is spelled: Mike-Alfa-Romeo-India-Kilo-Alfa.

6? I have Japanese nationality.

7? This is a bulker.

8? My departure was Rajae port.

9? My port of registry is Panama.

B. Pair work Take turns asking the question which follows using the information provided below.

A: What's your cargo?

B: My cargo is crude oil.

Or

I have crude oil on board.

Crude oil	general cargo	grain
cement	cattle	car
petroleum	LNG	LPG

Note: when a vessel replies: "I'm in ballast" in answer to the question above, it means that she has no cargo except for the materials which are used to make it heavier and help her keep her balance.

Example:

A: what's your cargo?

B: I'm in ballast.

2. Let's Learn

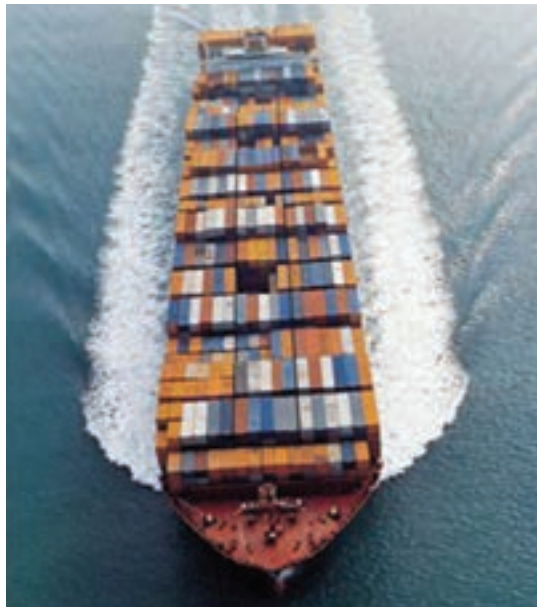
Methods of calling unknown vessels:

Calling an unknown vessel using her course, speed and distance.

Example:

Vessel on course 252 degrees, speed 15 knots, and distance 3 nautical miles, this is IRGCN warship calling you on channel 16. Over.

Pair work Take turns calling unknown vessels whose course, speed and distance are as follows:



Vessel calling	Vessel called
Sepah Navy warship	265°, 16Kn, 5 nm from the Greater Tunb island
Iranian Navy warship	050°, 11Kn, 7 nm from Abu Musa island
Sepah patrol boat	010°, 18Kn, 5.6 nm from Sirri island
Bahonar port station	225°, 15Kn, 6.8 nm from Hengam island
Evergreen	090°, 20Kn, 8 nm from Farsi island
Boushehr port station	165°, 17Kn, 3.4 nm from Khark island

Example:

Vessel on course 265 degrees, speed 16 knots, and distance 5 nautical miles from the Grater Tunb island, this is Sepah Navy warship calling you on channel 16. Over.

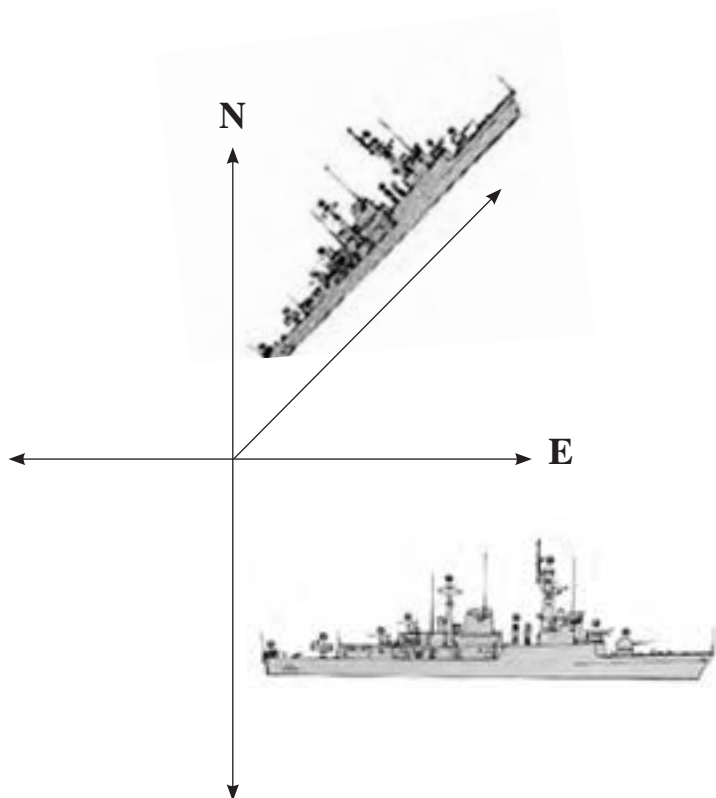
Methods of calling unknown vessels:

Calling an unknown vessel using her sailing direction.

Example:

East bound vessel on my port bow, this is Olympia. Coming Please. over.

North East bound vessel on my starboard quarter, this is US navy warship on channel 16. Over.



Pair work Take turns calling unknown vessels whose sailing directions are as follows:

Vessel calling	Vessel called
Japanese warship	East bound-port bow
Iranian Navy warship	West bound-ahead of me
Sepah Navy patrol boat	North East bound-starboard beam
Venus Triumph	South West bound- astern of me
Daffodil	North West bound- starboard quarter

Example: East bound vessel on my port bow, this is Japanese warship on channel 16. Over.

3. Reading

Types of warships 3

A **Destroyer** is a fast and maneuverable yet long-endurance warship intended to escort larger vessels in a fleet, convoy or battle group and defend them against smaller, powerful, short-range attackers. Destroyers, originally called **torpedo-boat destroyers** in 1892, evolved from the response of navies to the threat posed by the torpedo boat. Prior to World War II, destroyers were light vessels with little endurance for unguarded ocean operations; typically a number of destroyers operated together. After the war, the advent of the guided missile allowed destroyers to take on the surface combatant roles previously performed by battleships and cruisers. This resulted in larger and more powerful destroyers more capable of independent operation.



A **Frigate** is any of several types of warship. The term has been being used for ships of various sizes and roles since the last few centuries.

In modern navies, frigates are used to protect other warships and merchant-marine ships, especially as anti-submarine warfare (ASW) combatants for amphibious expeditionary forces, underway replenishment groups, and merchant convoys.



A. Circle the odd one out.

- | | | | | |
|---|--------------|----------|-----------|-----------|
| 1 | attack | defend | assault | raid |
| 2 | fleet | flotilla | squadron | soldier |
| 3 | freight ship | frigate | destroyer | cruiser |
| 4 | torpedo | missile | gun | deck |
| 5 | flood | convoy | fleet | caravan |
| 6 | warfare | combat | welfare | war |
| 7 | tornado | breeze | storm | hurricane |
| 8 | amphibious | water | marine | sea |

B. Match the words and definitions. Then compare with a partner.

- | | | |
|---|---------------------|--|
| 1 | escort | a. cause something, especially a problem or difficulty. |
| 2 | expeditionary force | b. a group of soldiers that is sent to another country to fight in a war. |
| 3 | take on | c. go with someone or a vehicle especially to make certain that they arrive safely or that they leave a place. |
| 4 | pose | d. the arrival of an event, invention or person. |
| 5 | defend | e. the possibility of trouble, danger or disaster. |
| 6 | advent | f. accept a job or responsibility. |
| 7 | endurance | g. the ability to continue doing something difficult, unpleasant or painful for a long time. |
| 8 | threat | h. protect someone or something against attack or criticism. |

C. Pair work Read the article. Then talk about these questions.

- 1 What is a destroyer used for?
- 2 What is a frigate used for?
- 3 What kinds of warships carried out the surface combatant operations before World War II? What about after the war?

4. Nautical Terms

Deck

Any horizontal platform in a ship. (Lubbers beware: there are floors on a ship, but they have absolutely nothing to do with the deck.)

Superstructure

Various structures above the weather deck.



Lesson 5

Turn on Your Navigational Lights

1. Ship to Ship Communication

Iran Shahed: Outbound vessel on my starboard bow in Position 050°, 8 nautical miles from the Greater Tunb island, this is Iran Shahed calling on channel 16. Over.

Magnolia: Iran Shahed, this is motor vessel Magnolia. Over.

Iran Shahed: Magnolia, this is Iran Shahed. Request switch to channel 72. Over.

Magnolia: Iran Shahed, this is Magnolia. Switching to channel 72. Over.

Iran Shahed: Magnolia, this is Iran Shahed on channel 72. Over.

Magnolia: Iran Shahed, this is Magnolia. Go ahead. Over.

Iran Shahed: Magnolia, this is Iran Shahed. As I see, your navigation lights are off, and this endangers safety of navigation in the area. What is the problem? Over.

Magnolia: Iran Shahed, this is Magnolia. You are right sir, there is a fault in my electrical system and I'm trying to fix it. Over.

Iran Shahed: Magnolia, this is Iran Shahed. Roger sir; Is there anything I can help you with? Over.

Magnolia: Iran Shahed, this is Magnolia. No sir, thanks. It will be fixed within half an hour. Over.

Iran Shahed: Magnolia, this is Iran Shahed. Roger sir; Warn approaching vessels by calling and flashing to make them aware of your problem, and turn on your navigation lights as soon as you have fixed the fault. Over.

Magnolia: Iran Shahed, this is Magnolia. Ok sir. Thanks for your safety advice. Over.

Iran Shahed: Magnolia, this is Iran Shahed. Have a good night. Back to channel 16. Out.

Magnolia: Iran Shahed, this is Magnolia. Roger; Channel 16. Out.



Complete the conversations using the words in parentheses. Then practice with a partner.

- 1 A: What is the? (job, matter)
B: There is a with my anchor. (Problem, solution)
- 2 A: Is it..... to turn off navigation lights at night? (safe, dangerous)
B: No, it is not. You must turn them..... (on/off) at night and..... (on/off) in the day.
- 3 A: Oh, our navigation lights are off. We need to warnvessels for safety. (leaving, approaching)
B: Yes, you are right.

2. Let's Learn

Positions

Position may be expressed in two ways:

- 1 Using a latitude and longitude.
- 2 Using a bearing and distance from a fixed object or mark.

When latitude and longitude are used, 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: WARNING. *Dangerous wreck in position 26 degrees 20 minutes North, 055 degrees 25 minutes East.*

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 is bearing 220 degrees from Larak lighthouse, distance 2.4 nautical miles.

My position is 250 degrees, 4 nautical miles from Hengam Lighthouse.

The mooring buoy bears 030 degrees, 5 nautical miles from you.

Pair work Put information from the chart in one of the examples above. Then practice with a partner.

A: 26° 06' N, 055°17' E	B: 25° 49.3' N, 055°43.7' E	C: 26° 14' N, 055°55.9' E
D: Bearing: 180° Distance: 7 Nm From Kish lighthouse	E: Bearing: 140° Distance: 13 Nm From Hendorabi lighthouse	F: Bearing: 070° Distance: 11 Nm From Khark lighthouse

Bearings

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. Bearings may be either FROM the mark or FROM the vessel.



Example:

Pilot boat is bearing 325 degrees from you.

Note: Vessels reporting their position should always quote their bearing FROM the mark.

Relative bearings

Relative bearings are expressed in degrees relative to the vessel's head (not to North). More frequently this is in relation to the port or starboard bow.

Example:

Buoy is 030 degrees on your port bow.

.....

Pair work Work with a partner. Use information from the chart to state bearings of the marks or vessels.

Mark / Vessel	True bearing	Relative bearing
the light vessel	150 °	045 °/starboard bow
the fairway buoy	315 °	015 °/port bow
the beacon	270 °	020 °/starboard bow
the racon	085 °	060 °/port bow

Example:

The light vessel bears/ is bearing 150 ° from you.

My bearing is 150° from the light vessel.

The light vessel is 045° on your starboard bow.

3. Reading

Ship Oil Pollution Emergency Plan

When oil spill occurs at sea, it spreads over the surface of the sea water, leaving a deadly impact on marine mammals, birds, the shore line and most importantly the ocean and the environment.

The cost to clean up an oil spill depends on the quantity and quality of oil discharged in the sea, and the most important – loss of marine life and the effects on human health which cannot be measured against any amount.

As prevention is better than cure, in order to avoid the above mentioned losses and marine pollution and losses of marine species, a prevention plan is carried on board by all vessels. This plan is known as SOPEP which stands for Ship Oil Pollution Emergency Plan.

The plan consists of procedures and descriptions of actions to be taken in the event of an oil pollution incident. In fact, SOPEP is a prevention plan intended to eliminate release of hazardous materials into the marine environment, and to respond when such releases happen. According to MARPOL 73/78 (Marine Pollution, 1973/1978), Annex I, reg. 26, every oil tanker of 150 gross tonnage and above and every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a Shipboard Oil Pollution Emergency Plan approved by Administration.

Master of the ship is the overall in charge of the SOPEP of the ship. SOPEP also describes the plan for the master, officer and the crew of the ship to tackle various oil spill scenarios that can occur on a ship. It advises the master how to react in case of an oil spill to prevent negative effects on the environment. The plan contains operational aspects for various oil spill scenarios and lists communication information to be used in case of such incidents.



A. Match the words and definitions. Then compare with a partner.

- | | |
|-------------|---|
| 1 impact | a. likely to cause death |
| 2 Mammal | b. to send out gas, liquid, smoke, etc. |
| 3 Hazardous | c. the effect or influence that an event, situation, etc. has on someone or something |
| 4 Deadly | d. a type of animal that drinks milk from its mother's body when it is young |
| 5 Eliminate | e. a way of doing something, especially the correct or usual way |
| 6 Species | f. an event, especially one that is unusual or important |
| 7 discharge | g. to completely get rid of something that is unnecessary or unwanted |
| 8 procedure | h. a group of animals or plants whose members are similar |
| 9 incident | i. dangerous, specially to people's health or safety |

B. **Pair work** According to the article, which of these statements are true? Check(✓) the statements. What information helped you determine this? Underline the information in the article.

- 1 The cost to compensate for loss of marine life is extremely high.
- 2 The amount of money to clean up an oil spill depends on the type of the material discharged in the sea.
- 3 All vessels of 400 gross tonnage and above shall carry on board a Shipboard Oil Pollution Emergency Plan.
- 4 SOPEP is not a cure plan.
- 5 SOPEP describes the plan only for the master of a ship.

4. Nautical terms

Hull

The main body of a ship.



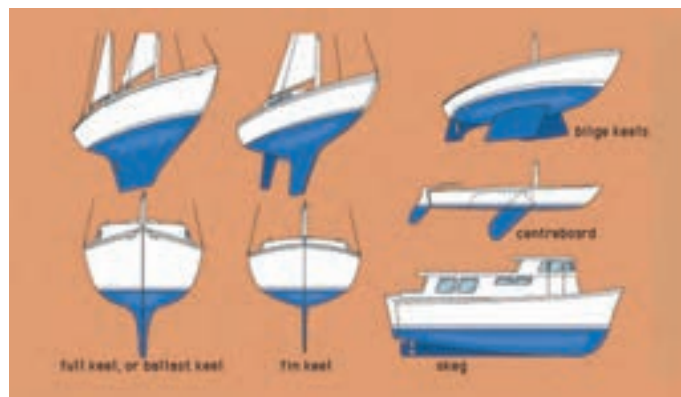
Compartment

An enclosed or partly enclosed area on board a ship, which has a specific limited function, such as for living quarters, storage, or machinery.



Keel

The central longitudinal structural member of a ship to which all the frames, stem and sternpost are fastened.



Bilge

The deepest part inboard of a ship's hull, where any leakage collects.



Bridge

A place on board a ship where the ship's steering is controlled by officer on watch or captain.



Water line

The plane where a normally laden boat hull lies at the water's surface.



Lesson 6

Stop Fishing Here

1. Ship to Ship Communication

Sepah Navy warship P313-4 has detected a fishing vessel engaged in fishing in a forbidden area.

Sepah Navy warship4: Fishing vesse on my port beam in position 26° 06' N, 055° 05.8' E, this is Sepah Navy warship on channel 16. Over.

Shark: Sepah Navy war ship, this is Shark. Over.



Sepah Navy warship4: Shark, this is Sepah Navy warship. Switch to channel 11. Over.

Shark: Sepah Navy warship, this is Shark. Switching to Channel 11. Over.

Sepah Navy warship4: Shark, this is Sepah Navy warship on channel 11. Over.

Shark: Sepah Navy warship, this is Shark on channel 11. Coming please. Over.

Sepah Navy warship 4: Shark, this is Sepah Navy warship. You are fishing in the fairway. Fishing in this area is prohibited. Over.

Shark: Sepah Navy warship, this is Shark. Sorry sir. we were fishing out of the fairway. Current has moved us to this area. Over.

Sepah Navy warship4: Shark, this is Sepah Navy warship. You are ordered to recover your fishing gear immediately and stay clear of the fairway. Over.

Shark: Sepah Navy warship, this is Shark. Roger sir; I will recover my fishing gear right away. Over.

Sepah Navy warship4: Shark, this is Sepah Navy warship. Back to channel 16. Out.

Shark: Sepah Navy warship, this is Shark. Roger; Channel 16. Out.

2. Let's Learn

Form of Standard Verbs and Sentences

Where possible, sentences should be introduced by one of the following verb forms:

Indicative	Negative	Interrogative
I require	I do not require	Do I/You require?
I am	I am not	Am I/Are you?
You are	You are not	Are you?
I have	I do not have	Do you have?
I can	I cannot	Can I? / Is it possible? /Can you?
I wish to	I do not wish to	Do you wish to?
I will -- future	I will not –future	Will you? -- future
You have permission	You do not have permission	Do I/You have permission?
Advise	Advise not
There is	There is not	Is there? What is/are? Where is/are? When is/are?

Imperative

Always to be used when mandatory orders are being given:

You must

Do not

Must I?

NOTE: In IMCO, polite words (please, Thank you) are usually avoided.

Example:

I will heave up anchor. (Indicative)

I will not heave up anchor. (Negative)

Will you heave up anchor? (Interrogative)

Advise you heave up anchor. (Advisory)

You must heave up anchor. (Imperative)

Do not heave up anchor. (Imperative (Negative))

Must I heave up anchor? (Interrogative)

Ambiguous words

Some words in English have meanings depending on the context in which they appear. Misunderstandings frequently occur, especially in VTS communications, and have produced accidents. Such words are:

The conditionals “may”, “might”, “should” and “could”

May

Do not say: “May I enter the fairway?”

Say: “QUESTION. Do I have permission to enter the fairway?”

Do not say: “You may enter the fairway.”

Say: “ANSWER. You have permission to enter the fairway.”

Might

Do not say: “I might enter the fairway.”

Say: “INTENTION. I will enter the fairway.”

Should

Do not say: “You should anchor in anchorage B 3.”

Say: “ADVICE. Anchor in anchorage B 3.”

Could

Do not say: “You could be running into danger.”

Say: “WARNING. You are running into danger.”

Can

The word “can” describes either the possibility or the capability of doing something. In the IMO SMCP the situations where phrases using the word “can” appear make it clear whether a possibility is referred to. In an ambiguous context, however, say, for example: “QUESTION. Do I have permission to use the shallow draft fairway at this time?” Do not say: “Can I use the shallow draft fairway at this time?” if you are asking for permission.

Group work: Work in groups of five. Use information from the table to make standard sentences. Student A says an indicative sentence. Student B says the negative form of the sentence and so on. Then take turns.

Information needed	Indicative	Negative	Interrogative	Imperative	Advisory
enter canal (I /will)					
alter course to port (I / can)			(You)		
land on deck (I / have permission)					
overtake (I/wish to)				(negative)	(negative)
ready to get underway (I am)					
tug assistance (I require)				anchor clear of the fairway	
Iranian flag (I have)				hoist	
dangerous rock (there is /ahead of you)				Change course	

Example:

I will enter the canal. (Indicative)

I will not enter the canal. (Negative)

Will you enter the canal? (Interrogative)

You must enter the canal. (Imperative)

Advise you enter the canal. (Advisory)

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.

To show understanding or receiving a message, say:

“**Roger.**”

When the information requested is not immediately available, say:

“**Stand by**” followed by the time interval within which the information will be available.

When the information requested cannot be obtained, say:

“**No information.**”

When a message is not understood, say:

“Message **not understood.**”

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 the vessel North of you.

Respond: I will not overtake the vessel North of me.

.....
Pair work Complete the conversations. Then practice with your partner.

1 A: Do you have any security teams on board? Over.

B:, I don't. No security teams on board. Over.

2 A: Would you let me know the weather forecast for next 24 hours? Over.

B:, it will be ready within 5 minutes. Over (information is not accessible right now)

3 A: Are you equipped with AIS? Over.

B:, I am. I'm equipped with AIS. Over.

4 A: You are ordered to heave up anchor and keep clear of the fair way. Over.

B: (Message is received and understood)

5 A: Advise you make course of 150° and turn at the fairway buoy. Over.
B: (Message is heard but not comprehended)

6 A: Do you know where the position of fairway buoy is? Over.
B: (The answer is not obtainable)

3. Reading

Morvarid Operation

Morvarid was an operation launched by the Iranian Navy and Iranian Air Force against the Iraqi Navy and Air Force on 28 November 1980 in response to Iraq positioning radar and monitoring equipment on the Al-Bakr and Khor-al-Amaya oil rigs to counter Iranian air operations. The Operation resulted in a victory for Iran, which managed to destroy both oil rigs as well as much of the Iraqi Navy and did a lot of damage to Iraqi ports and airfields.

After the technicians of the Islamic Republic of Iran's Air Force (IRIAF) prepared as many planes and helicopters as possible, on the afternoon of the 28 November, Phantoms and Tigers began a new series of strikes against Iraqi airfields around Basrah, and shot down one defending MiG-21 during this operation. So the Iranian operation named Morvarid began. During the night hours of the 29 November 1980, at least six ships of the Islamic Republic of Iran Navy's (IRINA) Task Force 421 landed a group of Marine Commandos on the Iraqi oil terminals at Mina al Bakr and Khor-al-Amaya. The operation supported by different helicopters and planes took the enemy completely by surprise. During the short gun fight, most defenders were gunned down. After that, the Marines placed a large number of bombs and mines before being evacuated by helicopters. A series of fierce explosions shattered the air, as further Iraqi oil installations and very important early warning bases were going up in flames.

At the same time, two Iranian missile boats of the Combatant II class, Peykan and Joshan, blocked the entrance into the ports of Al Faw and Umm Qasr and bombarded both facilities where meanwhile over 60 foreign ships were blocked.

The Iraqi Navy was compelled to react, and in the morning, two groups of motor-torpedo boats, and five fast-attack crafts started a counterattack. Both Iranian and Iraqi ships exchanged intensive missile fire, and Iranian Harpoon missiles scored several hits and sank two Osas. After a while, however, Peykan was attacked by three further Osa II boats and the crew called the IRIAF for help. Immediately, two Phantoms, both armed with six AGM - 65A Maverick air-to-ground missiles, were immediately flew from Bushehr and sent to the north. However, they couldn't reach the scene of the naval battle before Peykan was sunk due to the hits of two SS-N-2 Styx surface-to-surface missiles. Outraged, two Phantoms crew opened fire at every Iraqi ship that could be found: three Iraqi Osa IIs as well as four P-6s were sunk in less than five minutes! Couple of minutes later, four F-4Ds

from Shiraz bombed the port of Al Faw and adjacent depots and magazines with laser-guided bombs, while surrounding Iraqi SAM-sites were hit by F-4Es and F-5Es.



A . Pair work Read the article. Then talk about these questions.

- 1 What was Iran's intention of carrying out Morvarid operation?
- 2 Which Iranian forces were involved in the operation?
- 3 What type of Iranian warship was attacked and sunk in the operation?
- 4 What Iraqi equipment, ships, planes, etc. were damaged or destroyed in the operation?

4. Nautical terms

Draught

The depth of a ship below the water line measured vertically to the keel. The draft of a ship determines the minimum depth of water necessary to navigate without grounding.



Freeboard

The distance between the main deck and waterline is called Free Board.



Height

The distance between the water line and the highest point of the ship.



Lesson 7

You Are Crossing My Net

1. Ship to Ship Communication

Persian Enterprise: West bound vessel in position
26° 43' N, 053° 15.6' E, this is
Persian Enterprise flashing at you. Over.

M.V ALIAS: Persian Enterprise, this is M.V
Alias. You are in sight. Over.

Persian Enterprise: M.V Alias, this is Persian Enter prise.
Shift to channel 73. Over.

M.V ALIAS: Persian Enterprise, this is M.V Alias.
Shifting to channel 73. Over.

Persian Enterprise: M.V Alias, this is Persian Enterprise. Coming please. Over.

M.V ALIAS: Persian Enterprise, this is M.V Alias. Goon. Over.

Persian Enterprise: M.V Alias, this is Persian Enterprise. I'm a fishing vessel and I have
fishing gear. You are crossing my net. Please change course to port and
keep a distance of 3 nautical miles. Over.

M.V ALIAS: Persian Enterprise, this is M.V Alias. Roger sir; I'm altering course to
port to avoid crossing your net. Is there any other fishing gear ahead of
me? Over.

Persian Enterprise: M.V Alias, this is Persian Enterprise. There are small fishing boats
with nets in this area which may foul your propeller. You need to keep a
sharp lookout and navigate cautiously in the area. Over.

M.V ALIAS: Persian Enterprise, this is M.V Alias. What course do you suggest
me to keep well clear of fishing boats and their gear? Over.

Persian Enterprise: M.V Alias, this is Persian Enterprise. Advise you change course to
port and make a distance of at least 10 nautical miles from the coast line
and keep this distance until you pass the area. Over.

M.V ALIAS: Persian Enterprise, this is M.V Alias. Thank you for your guidelines.
Channel 16. Out.

Persian Enterprise: M.V Alias, this is Persian Enterprise. Wish you a safe voyage.
Channel 16. Out.



A. Complete the conversations with the words from the box. Then practice with a partner.

danger, voyage, keep, roger, make, foul, avoid, fishing, cross, alter, recommendation, suggest, turn

1 A: You are about to..... my net. to starboard and a distance of 2 nautical miles right away.

B:, I will..... course to starboard to..... crossing your net.

2 A: You are running into..... There are..... gear dead ahead of you.

B: Roger; I will keep clear of fishing gear not to my propeller.

3 A: What course do you.....?

B: Advise you..... course of 160 degrees.

4 A: Thank you for your.....

B: Wish you a safe

B. **Pair work** Match the words to their meanings. Use a dictionary.

- | | |
|----------------|--|
| 1 cross | a. cause something to become caught in something such as net or ropes; entangle. |
| 2 foul | b. prevents something from happening. |
| 3 voyage | c. completely ahead |
| 4 propeller | d. stay away |
| 5 fishing gear | e. go across from one side of something to the other |
| 6 dead ahead | f. a device which causes a ship or aircraft to move, consisting of two or more blades which turns round at high speed. |
| 7 avoid | g. in a careful manner |
| 8 cautiously | h. fishing equipment |
| 9 keep clear | i. a long journey, especially by ship |

2. Let's Learn

Standard safety message

SECURITE is used to announce a safety message.

Structure

After the transmission of a DSC Safety Call, switch the transmitter to VHF Channel 16 or frequency 2182 kHz (if not automatically controlled) and transmit the safety message as follows:



SÉCURITÉ (repeated three times)

ALL STATIONS (or all ships in a specific geographical area or to a specific station) (repeated three times)

THIS IS- the 9-digit MMSI of the vessel plus name / call sign or other identification – the text of the safety message.

Example

SÉCURITÉ SÉCURITÉ SÉCURITÉ

ALL SHIPS ALL SHIPS ALL SHIPS IN THE PERSIAN GULF

- THIS IS FOUR-ONE-NINE-ZERO-SEVEN-SEVEN-ZERO-ZERO-ZERO MOTORVESSEL “DEVPRAYAG” CALL SIGN VICTOR VICTOR JULIET SIERRA
- DANGEROUS WRECK LOCATED IN POSITION TWO NAUTICAL MILES SOUTH OF SIRRI ISLAND OVER

Group work: Work in groups of three. Put information from the chart in the example above. Then practice with members of your group.

Name	Upper Court	Mangolia	Daffodil
Call sign	9HIEB	5BGY3	9H2D8
MMSI	256002000	209252000	256630000
Safety message	unlit derelict vessel	storm warning	missile exercises in area
Position/time	4.7 Nm north of Abu Musa island	at 1000 UTC	A: 26° 50' N 056° 45' E B: 26° 50' N 056° 45' E C: 26° 47' N 056° 39' E

3. Reading

Electronic Chart Display and Information System

ECDIS is a computer-based navigation information system that complies with International Maritime Organization (IMO) regulations and can be used as an alternative to paper nautical charts. An ECDIS system displays the information from electronic navigational charts and integrates position information from the Global Positioning System (GPS) and other navigational sensors, such as radar and automatic identification systems (AIS). It may also display additional navigation-related information, such as Sailing Directions and depth of water.



Read the article. Mark the sentences true (T) or false (F).

ECDIS...

- 1 is a navigation information system which uses paper nautical charts.
- 2 provides information about depth of water.
- 3 gives us information about where to drop anchor.
- 4 cannot display the speed of our own ship.
- 5 can show the place of buoy, wrecks and oilfields.

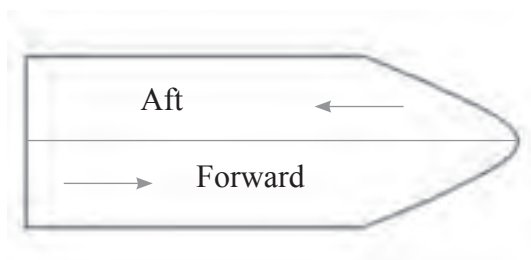
4. Nautical terms

Forward

The direction toward the bow or front of a ship; the shortened version "fore" is sometimes used.

Aft

The direction toward the stern.



Starboard

Facing the bow, everything on the right-hand side of the ship.

Port

Facing the bow, everything on the left-hand side of the ship.



Brow or gangplank

A short, straight, flat piece of equipment with one end on the ship, the other end on land, and rollers to allow for changing water levels.



5. Nautical terms

Gangway

An opening in the side of a ship that allows one to go on or off; sometimes refers to the entire entranceway, including the brow.



Pier

A platform extending from land over water, used to secure, protect, and provide access to ships and boats.



Lesson 8

I Am on Fire

1. Ship to Ship Communication

Eight Ocean: Mayday Mayday Mayday.
This is 218336000, motor vessel
Eight Ocean, Call Sign DFIF2. I am
in position 28° 39' N, 050° 08' E. I am
on fire. I require assistance. Over.

(After a while)

Evergreen: Eight Ocean, this is Evergreen. I'm
approaching you to help. Where is the fire? Over.

Eight Ocean: Evergreen, this is Eight Ocean. Fire is in holds. Over.

Evergreen: Eight Ocean, this is Evergreen. Are dangerous goods on fire? Over.

Eight Ocean: Evergreen, this is Eight Ocean. Negative sir. Dangerous goods are not on fire. Over.

Evergreen: Eight Ocean, this is Evergreen. I'm sending a boat to you. What kind of
assistance is required? Over.

Eight Ocean: Evergreen, this is Eight Ocean. I require portable CO2 extinguishers. Over.

Evergreen: Eight Ocean, this is Evergreen. The boat will reach you in 5 minutes.
Stand by on this channel. Over.

Eight Ocean: Evergreen, this is Eight Ocean. Thank you sir. I'm waiting for your assistance. Over.

(After 30 minutes)

Evergreen: Eight Ocean, this is Evergreen. Over

Eight Ocean: Evergreen, this is Eight Ocean. Go ahead sir. Over.

Evergreen: Eight Ocean, this is Evergreen. Is the fire under control? Over.

Eight Ocean: Evergreen, this is Eight Ocean. Yes, fire is under control. Over.

Evergreen: Eight Ocean, this is Evergreen. Do you have any injured persons on board? Over.

Eight Ocean: Evergreen, this is Eight Ocean. Negative sir. No persons injured. Thank you
very much for your timely assistance. Your boat is going back to you. Over.

Evergreen: Eight Ocean, this is Evergreen. Have a safe journey in the Persian Gulf.
Channel 16. Out.

Eight Ocean: Evergreen, this is Eight Ocean. Thank you so much again. We really appreciate
your assistance. Channel 16. Out.



Pair work Take turns asking these questions. Use information from the boxes a and b.

A: Where is the fire?

B: Fire is on deck.

A: What kind of assistance is required?

B: I require firefighting assistance.

a	b
on deck in engine room in hold (s) in superstructure in accommodation in mess	firefighting assistance breathing apparatus-smoke is toxic foam extinguisher co2 extinguishers fire pumps aerosol extinguishers

2. Let's Learn

Standard distress message

MAYDAY is used to announce a distress message.

Structure

A vessel in distress should commence the distress traffic on one of the international distress traffic frequencies such as VHF Channel 16 or frequency 2182 kHz (if not automatically controlled) as follows:

MAYDAY

THIS IS- the 9-digit Maritime Mobile Service Identity code (MMSI) plus name / Call Sign
or other identification of the vessel calling

- the position of the vessel
- the nature of distress
- the assistance required
- Any other information which might facilitate rescue.

Example:

MAYDAY (repeated 3 times)

■ THIS IS FOUR-ONE-NINE-ZERO-SEVEN-SEVEN-ZERO-ZERO-ZERO
MOTORVESSEL “DEVPRAYAG” CALL SIGN VICTOR VICTOR JULIET SIERRA

■ POSITION TWO SEVEN DEGREES ONE TWO DECIMAL EIGHT MINUTES
NORTH

ZERO FIVE ONE DEGREES FIVE FIVE MINUTES EAST

■ I AM ON FIRE AFTER EXPLOSION

■ I REQUIRE FIRE FIGHTING ASSISTANCE

■ SMOKE NOT TOXIC OVER

Group work: Work in groups of three. Put information from the chart in the example above. Then practice with members of your group.

Name	Puelo	Daffodil	Golf Glory
Call sign	A8KH6	9H2D8	A8QW8
MMSI	636013061	256630000	563862000
Position	26° 04' N, 054° 04' E	26° 19' N, 054° 46' E	26° 03' N, 055° 00' E
Nature of distress	fire	Flooding	dangerous list to port side
Assistance required	firefighting assistance	Pumps	tug assistance
Other information	dangerous cargo are not on fire	-----	-----

3. Reading

COLREGS (2)

Risk of Collision

Vessels must use all available means to determine the risk of a collision, including the use of radar, if available, to get early warning of the risk of collision by radar plotting or equivalent systematic observation of detected objects. (e.g. ARPA, AIS).

If the distance of any vessel is reducing and her relative bearing is not changing much or it is a large vessel or towing vessel at close distance, or if there is any doubt, then a risk of collision shall be deemed to exist. Actions taken to avoid collision should be:

- positive
- obvious
- made in good time

Overtaking

An overtaking vessel must keep out of the way of the vessel being overtaken. ‘Overtaking’ means approaching another vessel at more than 22.5 degrees abaft her beam, i.e. so that at night, the overtaking vessel would see only the stern light and neither of the sidelights of the vessel being overtaken.

Head-on situations

When two power-driven vessels are meeting head-on, both must alter course to starboard so that they pass on the port side of the other. ‘Head-on’ means seeing the other vessel ahead or nearly ahead so that by night her masthead lights are actually or nearly lined up and/or seeing both her sidelights, or by day seeing a similar aspect of her.

Crossing situations

When two power-driven vessels are crossing, the vessel which has the other on the starboard side must give way and avoid crossing ahead of her.

A. Fill the blanks with words from the text. Make any changes required.

- 1 A is a light at the top of a mast.
- 2 When the masthead lights of the vessel ahead are, a head-on collision is imminent.
- 3 When you intend tothe vessel ahead of you, you must inform her.
- 4 Using radar can greatly help officer of the watch the risk of a collision.
- 5 The radar operator..... all detected objects.
- 6 The submarine is impossible to on radar.
- 7 When you are missing at sea and you do not know where you are, a can really help you get to your destination.

B. **Pair work** Tick (✓) the correct sentences. Cross (×) the incorrect ones. Then compare with a partner and explain your reason.

- 1 A vessel being overtaken must keep out of the way of an overtaking vessel.
- 2 The overtaking vessel cannot see side lights of the vessel being overtaken.
- 3 In head-on situations, both vessels must alter course to port.
- 4 In crossing situations, the vessel which has the other on the port side is given priority.

4. Nautical terms

Aboard or on board

On the ship.



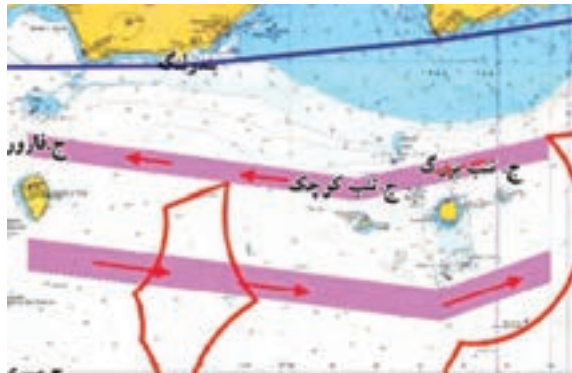
Underway

Describes a vessel which is not at anchor, or made fast to the shore, or aground.



Traffic lane

An area within defined limits in which one-way traffic is established.



Traffic separation scheme

A scheme which separates traffic proceeding in opposite or nearly opposite by the use of a separation zone or line, traffic lanes or other means.



Traffic lane

Breakwater:

A barrier, usually constructed of stones, placed around a harbor to absorb the impact of waves. When entering and leaving port, a ship often passes a breakwater.



Steer

Keep the ship's heading in a desired direction.



Lesson 9

Risk of Collision Is Imminent

1. Ship to Ship Communication

Damoon: North West bound tanker on my starboard bow proceeding at a speed of 17 Knots, this is Damoon calling you on channel 16. Over.

Genius: Damoon, this is Genius. Over.

Damoon: Genius, this is Damoon. Alter to channel 67. Over.

Genius: Damoon, this is Genius. Altering to channel 67. Over.

Damoon: Genius, this is Damoon on channel 67. Coming please. Over.

Genius: Damoon, this is Genius. Go ahead. Over.

Damoon: Genius, this is Damoon. According to your present course and speed, risk of collision is imminent, and I am restricted in my ability to maneuver because I am towing a huge barge. You are requested to keep well clear of me by either reducing speed or changing course. Over.

Genius: Damoon, this is Genius. Roger sir; I will alter my course to port side and pass your astern. Over.

Damoon: Genius, this is Damoon. Thank you very much sir. Wish you a safe voyage. Channel 16. Out.

Genius: Damoon, this is Genius. Thank you sir. Have a safe voyage too. Channel 16. Out.



Complete the statements with the words in the box. Then compare with a partner.

imminent, collision, maneuver restricted, tug, derelict clear, collided

- 1 I am a engaged in towing. Keep well of me.
- 2 Risk of is probable. Port to port. Ok?
- 3 I cannot change course. I am in my ability to
- 4 I can see your side lights simultaneously. A head-on collision is
- 5 An unlit vessel has been reported in the vicinity of Khark island. Keep a sharp lookout to avoid collision.
- 6 I have with an unknown vessel. I require assistance.

2. Let's Learn

Standard urgency message

PAN PAN is used to announce an urgency message

Structure

After the transmission of a DSC Urgency Call, switch the transmitter to VHF Channel 16 or frequency 2182 kHz (if not automatically controlled) and commence the urgency traffic as follows:

PAN PAN (repeated three times)

ALL STATIONS (repeated three times)

THIS IS- the 9-digit MMSI of the vessel plus name

/ Call Sign or other identification

- the position of the vessel
- the text of the urgency message.



Example

PAN-PAN PAN-PAN PAN-PAN

ALL STATIONS ALL STATIONS ALL STATIONS

- THIS IS FOUR-ONE-NINE-ZERO-SEVEN-SEVEN-ZERO-ZERO-ZERO
MOTORVESSEL «DEVPRAYAG» CALL SIGN VICTOR VICTOR JULIET SIERRA
- POSITION TWO SEVEN DEGREES ONE TWO DECIMAL EIGHT MINUTES NORTH
ZERO FIVE ONE DEGREES FIVE FIVE MINUTES EAST
- I HAVE LOST A PERSON OVERBOARD
- I REQUIRE SEARCH AND RESCUE ASSISTANCE OUT

Group work Work in groups of three. Put information from the chart in the example above. Then practice with members of your group.

Name	Magnolia	Genius	Qiu Chi
Call sign	5BGY3	EPAH6	VREV8
MMSI	209252000	422889000	477185500
Position	25° 49'N, 055° 43'E	26° 43'N, 055° 16'E	26° 03.7'N, 055° 26'E
Nature of urgency	injured person	problem with helm	problems with engines
Assistance required	medical assistance	tug assistance	tug assistance

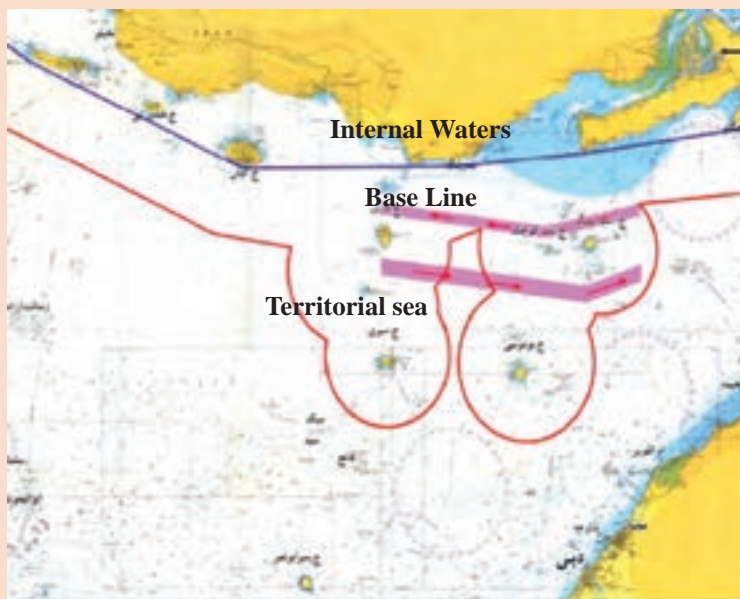
3. Reading

A **baseline** is the line from which the seaward limits of a state's territorial sea and certain other maritime zones of jurisdiction are measured. Normally, a sea baseline follows the low-water line of a coastal state. When the coastline is deeply indented, has fringing islands or is highly unstable, straight baselines may be used.

A nation's **internal waters** cover all waters and waterways on the landward side of the baseline from which a nation's territorial waters is defined. It includes waterways such as rivers and canals, and sometimes the water within small bays. According to the United Nations Convention on the Law of the Sea, the coastal nation is free to set laws, regulate any use, and use any resource. Foreign vessels have no right of passage within internal waters, and this lack of right to innocent passage is the key difference between internal waters and territorial waters.

Territorial waters, or a **territorial sea**, as defined by the 1982 United Nations Convention on the Law of the Sea, is a belt of coastal waters extending at most 12 nautical miles from the baseline of a coastal state. The territorial sea is regarded as the sovereign territory of the state, although foreign ships (both military and civilian) are allowed innocent passage through it; this sovereignty also extends to the airspace over and seabed below.

An **exclusive economic zone** is a sea zone over which a state has special rights over the exploration and use of marine resources. It stretches from the seaward edge of the state's territorial sea out to 200 nautical miles from its coast. In casual usage, the term may include the territorial sea and even the continental shelf beyond the 200 mile limit.



A. Complete the sentences with words from the box. Use the correct form of the verbs. You don't need all the words.

measure, straight, exploration, sovereign, jurisdiction, belt, territory, casual, extend, costal

- 1 Extensive for oil was carried out using the latest drilling technology.
- 2 He was wearing a shirt at party.
- 3 Black is the highest rank in most martial arts.
- 4 The sailor the length of the rope carefully.
- 5 In accordance with international law, every country has control over its internal waters.
- 6 Bumusa, the Greater Tunb and Lesser Tunb are under Iranian exclusive
- 7 Territorial waters 12 nautical miles from the baseline of a littoral state.
- 8 You are proceeding in the waters of Iranian

B. Fill the gaps with words having approximately opposite meanings.

edge, landward, free, indented, bay, seaward, limited, straight, middle, cape

- 1 ≠
- 2 ≠
- 3 ≠
- 4 ≠
- 5 ≠

C. Match words 1- 7 to their meanings.

- | | |
|-------------|-------------|
| 1 state | a. straight |
| 2 coastal | b. edge |
| 3 extend | c. country |
| 4 sovereign | d. land |
| 5 zone | e. littoral |
| 6 territory | f. absolute |
| 7 fringe | g. area |

D. Mark the sentences true (T) or false (F). Then compare with a partner.

- 1 A baseline is the line from which the limit of a territorial sea is measured.
- 2 Inland rivers are regarded as internal waters.
- 3 Foreign vessels have the right of innocent passage through internal waters of a country.
- 4 Saleh oilfield which is 22 miles from Iranian baseline is located in Iranian territorial waters.
- 5 Exclusive economic zone extends 200 nautical miles from the seaward edge of littoral state's territorial sea.

4. Nautical Terms

Vessel turning

A vessel making large alteration in course.



Vessel turning

A vessel which is proceeding from sea to harbor or dock.



Vessel outward

A vessel which is proceeding from harbor or anchorage to seaward.



Pitch

The motion caused by the rising and falling of the bow and stern of a ship.



Roll

The motion of ship from side to side.



ارزشیابی کسب اطلاعات فنی ۱

نمره	استاندارد (شاخص‌ها، داور، نمره‌دهی)	نتایج	استاندارد عملکرد (کیفیت)	تکالیف عملکردی (شایستگی‌ها)	عنوان پودمان (فصل)
۳	۱- اصطلاحات و واژه‌های استاندارد و مکالمات دریایی را بدانند. ۲- در ارتباط با شناورها یا ایستگاه‌های مخابراتی پیام و مکالمات آنها را درک کند. ۳- با شناورها یا ایستگاه‌های مخابراتی بتواند به درستی ارتباط رادیویی و تلفنی برقرار کند. * هنرجو توانایی انجام همه شاخص‌ها را داشته باشد.	بالاتر از حد انتظار			
۲	۱- اصطلاحات و واژه‌های استاندارد و مکالمات دریایی را بدانند. ۲- در ارتباط با شناورها یا ایستگاه‌های مخابراتی پیام و مکالمات آنها را درک کند. ۳- با شناورها یا ایستگاه‌های مخابراتی بتواند به درستی ارتباط رادیویی و تلفنی برقرار کند. * هنرجو توانایی انجام چهار مورد از شاخص‌ها را داشته باشد.	در حد انتظار	به‌کارگیری اطلاعات فنی در حوزه تخصصی	توانایی ارتباط با شناورها و ایستگاه‌های ارتباطی	کسب اطلاعات فنی ۱
۱	۱- اصطلاحات و واژه‌های استاندارد و مکالمات دریایی را بدانند. ۲- در ارتباط با شناورها یا ایستگاه‌های مخابراتی پیام و مکالمات آنها را درک کند. ۳- با شناورها یا ایستگاه‌های مخابراتی بتواند به درستی ارتباط رادیویی و تلفنی برقرار کند. * هنرجو توانایی انجام یک مورد از شاخص‌ها را داشته باشد.	پایین‌تر از حد انتظار			
					نمره مستمر از ۵
					نمره شایستگی پودمان از ۳
					نمره پودمان از ۲۰

ارزشیابی شایستگی کسب اطلاعات فنی ۱

<p>۱ شرح کار:</p> <ul style="list-style-type: none"> ■ پاسخگویی به کلیه فعالیت‌های پودمان؛ ■ شرکت در بحث‌های کلاسی؛ ■ ارتباط با شناورها از طریق مکالمات تلفنی. 		
<p>۲ استاندارد عملکرد:</p> <ul style="list-style-type: none"> ■ به کارگیری اطلاعات فنی در حوزه تخصصی ■ شاخص‌ها: ■ توانایی خواندن، نوشتن و بیان اطلاعات فنی و ارتباط با دیگر شناورها 		
<p>۳ شرایط انجام کار، ابزار و تجهیزات:</p> <ul style="list-style-type: none"> ■ شرایط: کلاس درس مجهز به پرده‌نگار باشد. ■ ابزار و تجهیزات: در کلاس امکان نمایش فایل‌های صوتی و تصویری وجود داشته باشد. 		
<p>۴ معیار شایستگی:</p>		
ردیف	مرحله کار	حداقل نمره قبولی از ۳ نمره هنرجو
۱	توانایی خواندن و درک مطلب و اصطلاحات دریایی	۲
۲	ارتباط رادیویی و تلفنی با دیگر شناورها	۱
	شایستگی‌های غیر فنی، ایمنی، بهداشتی، توجهات زیست‌محیطی و ...:	۲
	۱- رعایت نکات ایمنی دستگاه‌ها؛ ۲- دقت و تمرکز در اجرای کار؛ ۳- شایستگی تفکر و یادگیری مادام‌العمر؛ ۴- اخلاق حرفه‌ای.	
میانگین نمرات		*
* حداقل میانگین نمرات هنرجو برای قبولی و کسب شایستگی (۲) می‌باشد.		