

Unit 33

COLLISION REGULATIONS (COLREGS)

Basic terms

sailing vessel vessel engaged in fishing vessel not under command (NUC) vessel under way vessel restricted in her ability to manoeuvre head-on situation crossing situation	give-way vessel stand-on vessel Collision Rules COLREGS conduct of ships SOLAS Convention Rule of the Road lights and shapes sound signals restricted visibility	steering and sailing rules miscellaneous signals power-driven vessel overtaking risk of collision navigation/steaming lights blast to alter of course
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The International Rules were formalized in the Convention on the International Regulations for Preventing Collisions at Sea, 1972, and became effective on July 15, 1977. The Rules (commonly called 72 COLREGS) are part of the Convention, and vessels flying the flags of states ratifying the treaty are bound to the Rules.

The 72 COLREGS were developed by the Inter-Governmental Maritime Consultative Organization (IMCO) which in May 1982 was renamed the International Maritime Organization (IMO). In November 1981, IMO's Assembly adopted 55 amendments to the 72 COLREGS which became effective on June 1, 1983. The IMO also adopted 9 more amendments which became effective on November 19, 1989.

**INTERNATIONAL REGULATIONS FOR PREVENTING
COLLISIONS AT SEA 1972**
(as amended by Resolutions A464(XII), A626(15),
A678(16) and A736(18))

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PART A - GENERAL

Rule 3

General definitions

For the purpose of these Rules, except where the context otherwise requires:

(a) The word “**vessel**” includes every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

(b) The term “**power-driven vessel**” means any vessel propelled by machinery.

(c) The term “**sailing vessel**” means any vessel under sail provided that propelling machinery, if fitted, is not being used.

(d) The term “**vessel engaged in fishing**” means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict manoeuvrability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict manoeuvrability.

(e) The word “**seaplane**” includes any aircraft designed to manoeuvre on the water.

(f) The term “**vessel not under command**” means a vessel which through some exceptional circumstance is unable to manoeuvre as required by these Rules and is therefore unable to keep out of the way of another vessel.

(g) The term “**vessel restricted in her ability to manoeuvre**” means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by these Rules and is therefore unable to keep out of the way of another vessel. The term “vessels restricted in their ability to manoeuvre” shall include but not be limited to:

- (i) a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline;
- (ii) a vessel engaged in dredging, surveying or underwater operations;
- (iii) a vessel engaged in replenishment or transferring persons, provisions or cargo while underway;
- (iv) a vessel engaged in the launching or recovery of aircraft;
- (v) a vessel engaged in mine clearance operations;
- (vi) a vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course.

(h) The term “**vessel constrained by her draught**” means a power-driven vessel which, because of her draught in relation to the available depth and width of navigable water, is severely restricted in her ability to deviate from the course she is following.

(i) The word “**underway**” means that a vessel is not at anchor, or made fast to the shore, or aground.

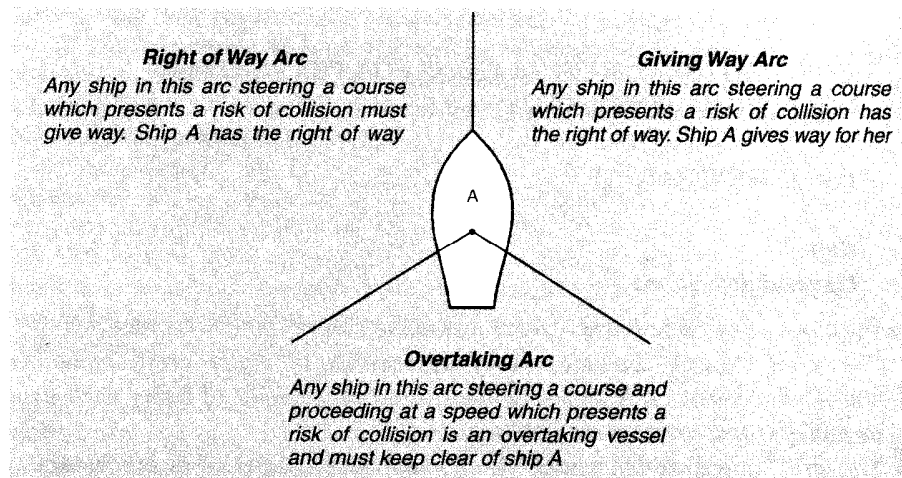
(j) The words “length” and “breadth” of a vessel mean her length overall and greatest breadth.

(k) Vessels shall be deemed to be **in sight of one another** only when one can be observed visually from the other.

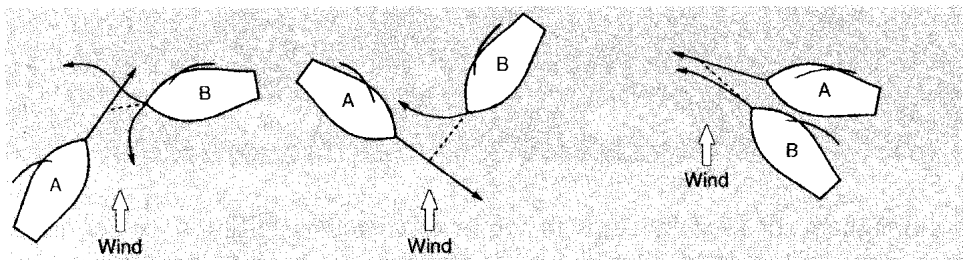
(l) The term “**restricted visibility**” means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms or any other similar causes.

<http://www.imo.org/Conventions>

Rule of the road, powered vessels



Rule of the road, sailing vessels



A on starboard tack has right of way over B on port tack

Windward boat B gives way to leeward boat A

Collision Rules include a set of thirty-eight internationally agreed rules which govern the conduct of ships at sea in order to prevent collisions between them. They are compiled by the International Convention for Safety of Life at Sea and are known officially as the International Regulations for Preventing Collisions at Sea, or colloquially as the Rule of the Road.

The thirty-eight rules are divided into six parts, which cover definitions, lights and shapes to be carried by vessels at night or day by which they can be recognized, sound signals and conduct in restricted visibility, steering and sailing rules to keep vessels apart when they are approaching each other, sound signals for vessels in sight of one another, and miscellaneous signals, such as distress signals, etc.

Of the **definitions** laid down, the most important are those which define a powerdriven vessel and a sailing vessel. Any form of mechanical propulsion, including oars, counts as a power-driven vessel.

The **lights** laid down to be carried under the Rule of the Road serve two purposes. The navigation (or steaming) lights carried by a ship are so designed and placed that any other ship sighting them can tell reasonably accurately the course of the vessel carrying them. Other lights laid down by the Rule of the Road are designed to indicate the type of vessel and her actual employment.

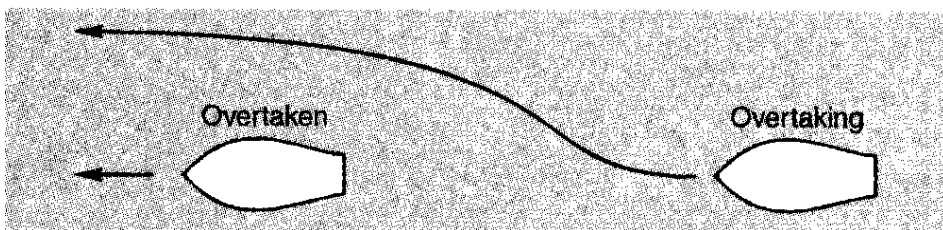
Sound signals are used by ships in fog or restricted visibility. A power-driven vessel gives one prolonged blast every two minutes on her whistle or siren when she is making way through the water, and two prolonged blasts every two minutes if she is under way but stopped. If she has anchored, she rings her ship's bell rapidly for five seconds every two minutes.

The most important group of rules are the **steering and sailing rules**, which lay down the procedure to be followed when ships approach each other and there is a danger of collision. These situations are called **close-quarters situations**. If, for example, two ships are approaching each other **head on**, both must alter course to starboard (or to the right) so that they pass each other port side to port side. Where a vessel is on the starboard hand of another, and steering a **crossing** course which may result in a collision, she has the right of way and should maintain her course and speed, the other vessel giving way to her.

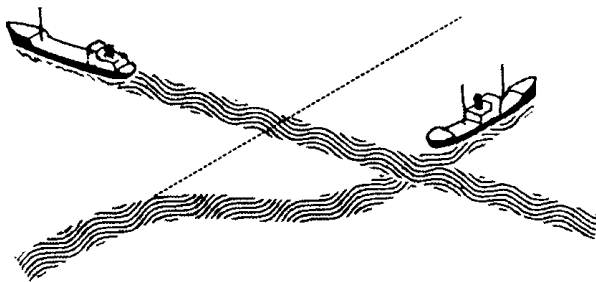
Where a vessel is on the port hand (side) of another, and her course, if she maintains it, may result in a collision, she is the giving way vessel and must alter course to avoid the other. But any ship **overtaking** another, i.e., approaching at any angle from two points (22.5°) abaft the beam on either side, must keep clear. When a vessel has the duty of giving way to another under the rules, she normally does so by altering course to pass astern of the other, and should make a clear and significant alteration of course in plenty of time to indicate to the other vessel that she is taking the appropriate action.

Close-quarters situations:

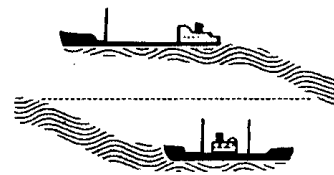
1. Overtaking Manoeuvre

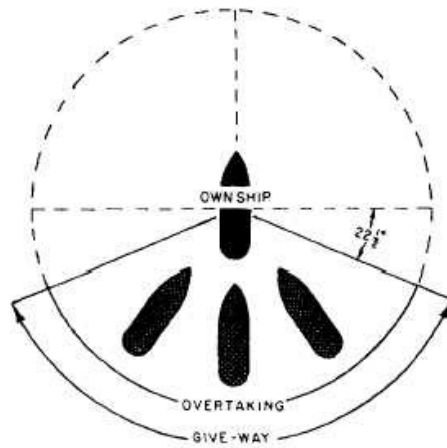


2. Crossing situation

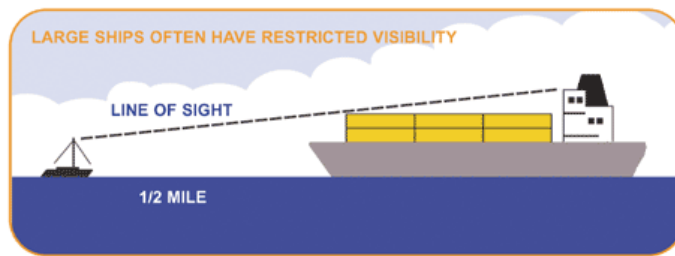


3. Head-on situation





NOTE :
VESSELS TO BE CONSIDERED IN
RELATION TO OWN SHIP ONLY
COLLISION COURSE ASSUMED



Part B. STEERING AND SAILING RULES

Rule 13

Overtaking

(a) Notwithstanding anything contained in the Rules of Part B, Sections I and II, any vessel overtaking any other shall keep out of the way of the vessel being overtaken.

(b) A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the stern light of that vessel but neither of her sidelights.

(c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that this is the case and act accordingly.

(d) Any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of these Rules or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.

Rule 14

Head-on situation

(a) When two power-driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other.

(b) Such a situation shall be deemed to exist when a vessel sees the other ahead or nearly ahead and by night she would see the mast head lights of the other in a line or nearly in a line and/or both sidelights and by day she observes the corresponding aspect of the other vessel.

(c) When a vessel is in any doubt as to whether such a situation exists she shall assume that it does exist and act accordingly.

Rule 15

Crossing situation

When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

Rule 16

Action by give-way vessel

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

Rule 17

Action by stand-on vessel

(a) (i) Where one of two vessels is to keep out of the way the other shall keep her course and speed.

(ii) The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these Rules.

(b) When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.

(c) A power-driven vessel which takes action in a crossing situation in accordance with sub-paragraph (a)(ii) of this Rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.

(d) This Rule does not relieve the give-way vessel of her obligation to keep out of the way.

Rule 18

Responsibilities between vessels

Except where Rules 9,10 and 13 otherwise require:

(a) A power-driven vessel underway shall keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to manoeuvre;
- (iii) a vessel engaged in fishing;
- (iv) a sailing vessel.

(b) A sailing vessel underway shall keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to manoeuvre;
- (iii) a vessel engaged in fishing.

(c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to manoeuvre.

(d) (i) Any vessel other than a vessel not under command or a vessel restricted in her ability to manoeuvre shall, if the circumstances of the case admit, avoid impeding the safe passage of a vessel constrained by her draught, exhibiting the signals in Rule 28.

(ii) A vessel constrained by her draught shall navigate with particular caution having full regard to her special condition.

(e) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rules of this Part.

IMO STANDARD MARINE COMMUNICATION PHRASES,
2001

A/1 Distress Traffic
A/1.1.3 – **Collision**

I have collided with MV

I have collided with unknown vessel /object / seamark / iceberg.

MV ... has collided with MV... .

What is damage?

-I have minor/major damage above/below water line.

-Propeller/rudder damaged.

-I can only proceed at slow speed.

-I am not under command.

Can you repair damage?

- Yes, I can repair damage.

- No, I cannot repair damage.

What kind of assistance do you require?

-I require escort /tugs.

-I require ...

MV...has major damage above/below water line.

MV...under command.

MV...not under command.

*According to my radar, your course does not comply with
International Regulations for Preventing Collisions at Sea.*

You are not complying with traffic regulations.

You are not keeping to correct lane.

A. Comprehension & vocabulary

A.1 Complete the following sentences:

1. The rule of the road is compiled by _____.
2. The six main parts of the Collision Rules are _____.
3. Distress signals are laid down in the part of the Colregs called _____.
4. A power-driven vessel is a vessel driven by _____.
5. Lights laid down under the Collision Rules are placed so that the other ship can
6. _____.
7. Lights are also designed to indicate _____.
8. A vessel making way through the water gives _____ blast _____.
9. A vessel anchored rings _____.
10. Steering and sailing rules lay down the actions to be taken if two vessels _____ and if _____.
11. Both ships must alter course to starboard if _____.
12. When two vessels are approaching on crossing bearings, the one having the other on her starboard side shall _____.

A.2 Supply the missing words using the words in the brackets:

**courses · alter · sight · blast · risk · accordance ·
power · portside · rules · collision**

Rule 17

When two vessels are in 1. _____ of one another and 2. _____ of collision exists, the steering and sailing 3. _____ provide for mutual action so that 4. _____ is avoided.

Thus, when two 5. _____ driven vessels are meeting on reciprocal 6. _____ so as to involve a risk of collision, each is directed by Rule 14 to 7. _____ course to starboard, so that each may pass on the 8. _____ of the other. Each vessel should indicate that she is altering course to starboard by sounding one short 9. _____ on the whistle in 10. _____ with Rule 34.

A.3 Supply the missing words:

· govern · proceed · keep · bear

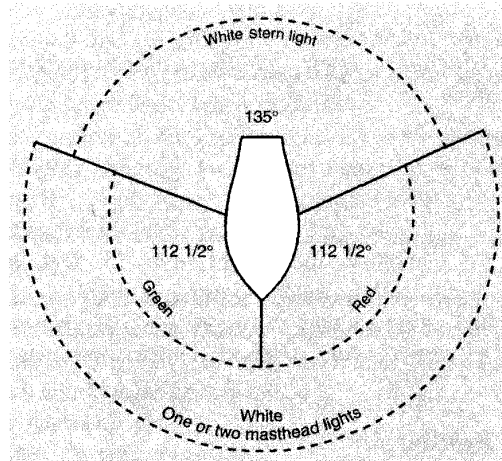
Rule 9

When 1. _____ along narrow channels, Rule 9 directs that the power driven vessel should 2. _____ to the starboard side of the channel. It must be 3. _____ in mind that navigation in many harbours and inland waters is 4. _____ by the by-laws made by local authorities.

A.4 Study the figure below and fill in the following missing words:

- white • green • red • sidelight • visibility • steaming • length
- starboard • way • collision • regulations • collision • collision.

Navigation lights-arcs of visibility



Navigation lights

Navigation lights are laid down under the International

1. _____ for Preventing 2. _____ at Sea which vessels must display when under 3. _____ at sea at night. They include a 4. _____ light on the mast (two lights if the vessel is over 150 feet in 5. _____ with the second light abaft of and higher than the first), red and 6. _____ sidelights to port and 7. _____ respectively, and a 8/8/8/5/.

_____ stern light. Their arcs of 9. _____ are strictly laid down so that it is possible to judge the course of a ship at night by studying the to 10. _____ lights which are j visible to an observer.

Other 11. _____ lights are laid down to indicate various types of vessel at sea, such as a fishing craft, tugs with vessels in tow, etc. Small sailing vessels are not required to carry the light on the mast 12. _____ and green 13. _____ alone are necessary under the regulations.

A.5 Supply the appropriate phrase:

• not under command • all-round • overtaking light
at intervals • in poor visibility • under way •
through the water • by day

Lights

A vessel 1. _____ at night, but 2. _____ and stopped, hoists two 3. _____ red lights, one above the other, visible two miles, and switches off all other navigation lights. If she is making way 4. _____ she shows bow lights and an 5. _____ in addition. 6. _____ she hoists two black balls. 7. _____ day or night, she sounds one long blast followed by two short blasts 8. _____ of not more than one minute.

A.6 Supply the following missing words or terms:

forward • anchor • apart • balls • all-round lights • length • visible • stern

Vessel aground

What are the day and night signals for a vessel aground? She shall show by night the 1. _____ for a vessel at 2. _____. If she is 150 feet or more in 3. _____ she shall show one white light forward and at or near the 4. _____ another such light not 15 feet lower than the 5. _____ light. Both lights are to be 6. _____ not less than 3 miles. By day she shall exhibit 3 black 7. _____ each not less than 2 feet in diameter in a vertical line over the other, not less than 6 feet- 8. _____

A.7 Choose the right answer:

1. You are steaming in dense fog and hear a whistle signal ahead - one prolonged blast followed by three short blasts. It is:
 - a) a fishing vessel engaged in trawling
 - b) a vessel being towed
 - c) a pilot vessel underway and making a special signal
 - d) a vessel not under command
2. When she is not at anchor, made fast to the shore, or aground, a vessel is:
 - a) underway
 - b) making way
 - c) dead in the water
 - d) a power-driven vessel
3. Which of the following day signals should be displayed by a vessel aground?
 - a) anchor balls forward and three black balls
 - b) anchor ball forward and two black balls
 - c) two black balls where best seen
 - d) three black, balls where best seen
4. A vessel on the high seas which is not under command shall display by day:
 - a) two black balls
 - b) three black balls
 - c) two red balls
 - d) three red balls
5. Three black balls in a vertical line indicate:
 - a) a vessel aground
 - b) a vessel not under command
 - c) a pilot on board
 - d) a vessel in distress
6. A power-driven vessel underway would:
 - a) show sidelights and a stern light
 - b) show sidelights and a stern light only when making way through the water
 - c) not show any range lights when stopping
 - d) never need to carry an after range light (range light = additional, optional masthead light)

Key: 6a, 1b, 2a, 4a,5a, 3d,

A.8 Fill in the Master's answers (B) to the Judge's questions (A) in the box below choosing from the following list:

- **Yes, think that the first collision pushed us over to starboard**
- **I was quite certain (sure) that the approaching vessel was observing us**
- **I didn't know, but if approaching vessel had then swung to starboard, the collision would have been avoided**
- **No, quite certainly not**
- **I cannot say. Possibly a minute**
- **I was not in doubt until she was in close proximity**

A. Why didn't you at any time before the collision sound a signal of a number of blasts?

B.1. _____

A. Were you in doubt as to whether the approaching vessel was taking the right step to keep clear?

B.2. _____

A. When the approaching vessel was 100 metres away from you, you knew that she was not taking

B.3. _____

A. How long before the collision did you go full astern?

B.4. _____

A. Did the collision have any effect on the heading of your ship?

B.5. _____

A. If the approaching vessel was heading 160°, then your ship must have been heading between 130° and 190° at the time of the collision.

B.6. _____

A. This is all I wanted to ask.

A.9 Supply the missing nautical term (overtaking, dead, transit, astern, course) :

During an east bound _____ of the Malacca Strait, own vessel was on a _____ of 1380 T, at an average speed of 13.5 knots, this dependent on the tides. At around 0900 local time, the OOW reported a vessel _____ astern, some 10 nautical miles, approximately on the same course and around 1.0 knot faster according to the ARPA. During the afternoon watch, the _____ vessel still remained right _____ and was identified as a LNG carrier.

The watch changed at 1600 when we were _____ the One Fathom Bank _____ Scheme. The auto pilot had been disengaged and the vessel was now in _____ steering. The LNG carrier was now less than 2 miles astern of us. The OOW reported that she would pass down our starboard side with a _____ of 0.5 miles. This was considered too close and I advised the OOW to adjust the _____ 5 degrees to port, taking into account our approach to the _____ Scheme.

A.10 supply the appropriate preposition:

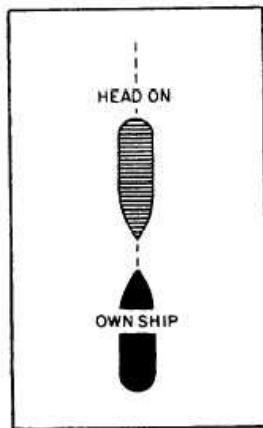
_____ 1700 the LNG carrier was abeam _____ a distance of 0.7 miles. The OOW had tried _____ establish contact via VHF radio _____ the LNG carrier but there was no response. At about 1745 she was one point forward _____ our beam and altered her course _____ port. The alteration was such that it was not readily detected _____ the OOW or myself, either visually or by radar, but _____ a few minutes the distance between us had reduced _____ 0.2 miles. I assumed the con and immediately ordered the helmsman to put the wheel hard _____ port. We were fortunate that there was no west bound traffic _____ the vicinity as my only other option would have been _____ stop the engine. This action alone would not have relieved the situation _____ quickly and safely as an alteration.

A.11 Supply the appropriate form of the verb (*have, disregard, avoid, enter, be, maintain, prevent, be*):

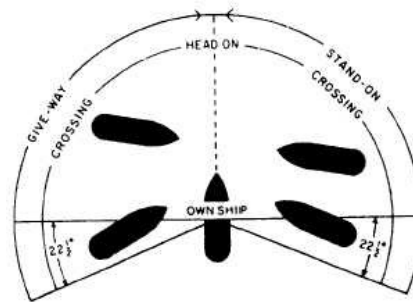
Throughout the morning and afternoon, the LNG carrier _____ plenty of sea room to starboard. An early action on her part would have _____ embarrassing my vessel. By the time she had drawn abeam, I _____ already 1 mile north east of my proposed course line. She had totally _____ Rule 13 (a) and was determined to _____ her course and speed no matter what. My actions as per Rule 17 _____ a potentially disastrous collision. It _____ quite obvious that her alteration to port

A.12 Work in pairs. Say what you (own ship) and your class-mate (the other ship) have to do in the situations shown in the pictures below. What is each situation called?

(a)

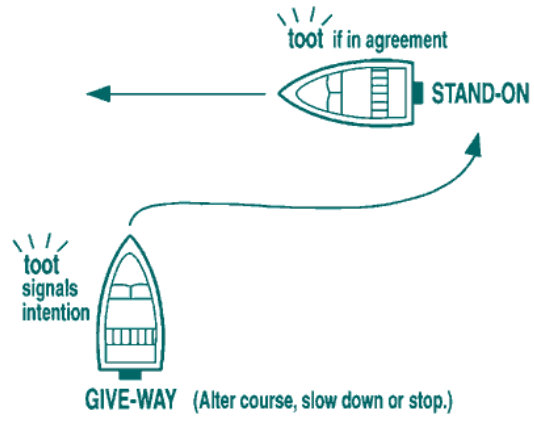


(b)

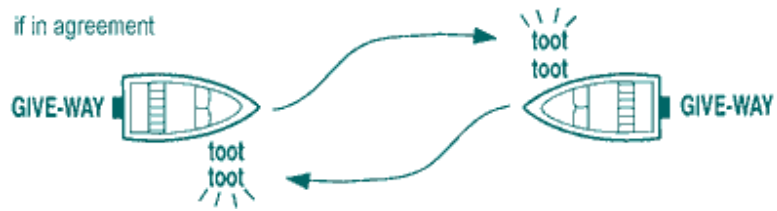


NOTE:
VESSELS TO BE CONSIDERED IN
RELATION TO OWN SHIP ONLY.
COLLISION COURSE ASSUMED

©



(d)



A.13 Supply the right term below. Then check your results against the complete text below:

Near Miss Overtaking

During an east (1)_____ transit of the Malacca Strait, own vessel was on (2)_____ of 1380 T, at an average speed of 13.5 knots, this dependent on the (3)_____. At around 0900 local time, the OOW reported a vessel right (4)_____, some 10 nautical miles, approximately on the same course and around 1.0 knot faster according to the (5)_____. During the afternoon watch, the (6)_____ vessel still remained right astern and was identified as a LNG (7)_____. The watch changed at 1600 when we were approaching the One Fathom Bank Separation (8)_____. The auto pilot had been disengaged and the vessel was now in hand (9)_____. The LNG (10)_____ was now less than 2 miles astern of us. The OOW reported that she would pass down our starboard side with a (11)_____ of 0.5 miles. This was considered too close and I advised the OOW to (12)_____ the course 5 degrees to port, taking into account our approach to the Separation Scheme. At 1700 the LNG carrier was abeam at a distance of 0.7 miles. The OOW had tried to establish contact via VHF radio with the LNG carrier but there was no response. At about 1745 she was one point forward of our (13)_____ and altered her course to port. The (14)_____ was such that it was not readily detected by the OOW or myself, either visually or by (15)_____, but within minutes the distance between us had reduced to 0.2 miles. I assumed the (16)_____ and immediately ordered the helmsman to put the (17)_____ hard to port. We were fortunate that there was no west bound (18)_____ in the vicinity as my only other option would have been to stop the (19)_____. This (20)_____ alone would not have relieved the situation as quickly and safely as an alteration. Throughout the morning and afternoon, the LNG carrier had plenty of searoom to (21)_____. An early action on her part would have avoided embarrassing my vessel. By the time she had drawn (22)_____, I was already 1 mile northeast of my proposed course line.

Near Miss Overtaking.

During an east (1)bound transit of the Malacca Strait, own vessel was on (2)course of 1380 T, at an average speed of 13.5 knots, this dependent on the (3)tides. At around 0900 local time, the OOW reported a vessel right (4)astern, some 10 nautical miles, approximately on the same course and around 1.0 knot faster according to the (5)ARPA. During the afternoon watch, the (6)overtaking vessel still remained right astern and was identified as a LNG (7)carrier. The watch changed at 1600 when we were approaching the One Fathom Bank Separation (8)Scheme. The auto pilot had been disengaged and the vessel was now in hand (9)steering. The LNG (10)carrier was now less than 2 miles astern of us. The OOW reported that she would pass down our starboard side with a (11)CPA of 0.5 miles. This was considered too close and I advised the OOW to (12)adjust the course 5 degrees to port, taking into account our approach to the Separation Scheme. At 1700 the LNG carrier was abeam at a distance of 0.7 miles. The OOW had tried to establish contact via VHF radio with the LNG carrier but there was no response. At about 1745 she was one point forward of our (13)beam and altered her course to port. The (14)alteration was such that it was not readily detected by the OOW or myself, either visually or by (15)radar, but within minutes the distance between us had reduced to 0.2 miles. I assumed the (16)con and immediately ordered the helmsman to put the (17)wheel hard to port. We were fortunate that there was no west bound (18)traffic in the vicinity as my only other option would have been to stop the (19)engine. This (20)action alone would not have relieved the situation as quickly and safely as an alteration. Throughout the morning and afternoon, the LNG carrier had plenty of searoom to (21)starboard. An early action on her part would have avoided embarrassing my vessel. By the time she had drawn (22)abeam, I was already 1 mile northeast of my proposed course line.

B. Grammar

B.1 Re-phrase the sentences below (1-5), using each of the following phrases:

- *keep out of the way*
- *avoid*
- *give way*
- *keep clear*
- *have the right of way*
- *give a wide berth to*

EXAMPLE

- ***Keep well out of the way of the oil tanker.***
- ***Avoid the oil tanker***
- ***Give way to the oil tanker Keep clear of the oil tanker***
- ***Keep clear of that tanker***
- ***The oil tanker has the right of way***
- ***Give this tanker a wide berth***

Now following the example above you do the same with each of the sentences in the box below:

1. You must keep clear and pass astern of me.
2. Why didn't you keep out of the way of the tanker?
3. We had to turn to starboard in order to give way to the ships in tow.
4. The overtaking vessel did not avoid the vessel being overtaken.
5. My ship had the right of way and proceeded without notice.

B.2 Make questions using suitable forms of the verbs in brackets:

Hearing at a court: collision

JUDGE - What time you (go) 1 _____ on watch on the day of the collision? Whom you (relieve) 2. _____?

- **2ND OFFICER** - At 8 o'clock in the morning. I relieved the Chief Officer.

- *JUDGE- What visibility (be) 3. _____ like? What your course (be)*

- **2ND OFFICER** - Approximately 6 miles, 152 true.

∴ JUDGE - You (ascertain) 5. _____ the position of your vessel when you came on watch?

- **2ND OFFICER** - The Chief Officer took radio bearings.

- *JUDGE - You (make) 6. _____ any estimate of the distance the other ship was from you? How she (bear)7. _____ from you?*

- **2ND OFFICER** -About 6 miles and between 10 and 20 degrees abaft the beam.

- *JUDGE -What (happen) 8. _____ to the distance between you and the bearing?*

- **2ND OFFICER** -She came closer and closer. The bearing drew slowly abeam.

-*JUDGE - Why you not (call) 9. _____ the captain considering the dangerous situation?*

- **2ND OFFICER** -The situation was quite clear in my opinion. It was the approaching ship's duty to give way.

B.3 Re-phrase the sentences in the box below so that the idea of obligation is always maintained (make the necessary changes); study the difference in meaning in the italicized phrases below:

EXAMPLE

Officers and rating *must be back*
should be back
ought to be back
shall be back
are to be back
are bound to be back
are obliged to be back
are supposed to be back
are ordered to be back } **by 18.00**

1. A vessel overtaking *shall keep out of the way* of the overtaken vessel.

_____, etc.
2. Each ship must alter course to starboard.
3. The port side vessel shall avoid the starboard side vessel in case of a crossing
4. situation.
5. A power-driven vessel should keep out of the way of a sailing vessel.

B4 Choose the the right term in the brackets and underline it:

Rule 10

Traffic separation schemes

(a) This Rule applies to traffic separation schemes adopted by the Organization and does not (*believe / relieve / free*) any vessel of her obligation under any other Rule.

(b) A vessel using a traffic separation scheme shall:

(i) proceed in the appropriate traffic (*side / lane / track*) in the general direction of traffic flow for that lane;

(ii) so far as practicable keep clear of a traffic separation line or separation (*zone / surface / area*);

(iii) normally join or leave a traffic lane at the termination of the lane, but when (*entering / joining / separating*) or leaving from either side shall do so at as small an angle to the general direction of traffic flow as practicable.

(c) A vessel (*has to / shall / must*), so far as practicable, avoid crossing traffic lanes but if obliged to do so shall cross on a heading as nearly as practicable at right angles to the general (*bearing / direction / stream*) of traffic flow.

(d) (i) A vessel shall not use an inshore traffic zone when she can safely use the appropriate traffic lane within the adjacent traffic separation (*programme / scheme / schedule*). However, vessels of less than 20 metres in length, sailing vessels and vessels engaged in fishing may use the (*inside / inshore / outbound*) traffic zone.

(ii) (*in spite of / notwithstanding / in contrast to*) sub-paragraph (d) (i), a vessel may use an inshore traffic zone when en route to or from a port, offshore installation or structure, pilot station or any other place situated within the inshore traffic zone, or to avoid immediate danger.

(e) A vessel other than a crossing vessel or a vessel joining or leaving a lane shall not normally enter a separation zone or (*cross / exceed / leave*) a separation line except:

- (i) in cases of emergency to avoid (*intermediate / immediate / threatening*) danger;
- (ii) to engage in fishing within a separation zone.
- (f) A vessel navigating in areas near the (*outer ends / terminations / beginnings*) of traffic separation schemes shall do so with particular caution.
- (g) A vessel shall so far as practicable (*avoid / keep clear / start*) anchoring in a traffic separation scheme or in areas near its terminations.
- (h) A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.
- (i) A vessel (*entered / caught / engaged*) in fishing shall not impede the passage of any vessel following a traffic lane.
- (j) A vessel of less than 20 metres in length or a sailing vessel shall not (*impede / free / stop*) the safe passage of a powerdriven vessel following a traffic lane.
- (l) A vessel (*limited / restricted / constrained*) in her ability to manoeuvre when engaged in an operation for the laying, servicing or picking up of a submarine cable, within a traffic separation scheme, is exempted from complying with this Rule to the extent necessary to carry out the operation.

B5 . Several sentences in the text below (italic & bold) have been jumbled. Put the words or phrases (chunks) in the right order so as to obtain full and correct sentences

Collision (MARS 200525)

One of our ships was on an offshore passage when another ship was noticed by radar on her port beam. Being a fine, clear, calm day the approaching ship was soon in sight. ***She, from the port beam, on a steady bearing, at high speed, was approaching.*** It was soon apparent that she was a major container ship. The ship's watch officer called her by VHF, addressing her as the "crossing container ship" to find out her intentions as it was apparent to him that she should give way whilst he should keep his course and speed. The container ship never acknowledged our ship's VHF calls which became more frequent and intense as the ships closed the distance between them.

With a collision no longer unavoidable, our ship sounded 5 short blasts on her whistle. Hearing this, the master rushed to the bridge. Immediately, he noticed the watch officer using the VHF to call the other ship now at a distance of some 3 cables and approaching at speed on the port side. ***The, immediately, and, hard to starboard, sounded, master, the crew general alarm, altered the course.***

In, the ships, the subsequent full speed collision, on almost parallel courses, came alongside, each other. Our ship's inner and outer hulls, for almost the full length of her parallel mid body on her port side, were evenly set in from the tank top to the upper deck by up to about 18 inches. Subsequently, she went into the nearest port where she was unloaded and her hull was strengthened with temporary external stiffeners. Then she was given classification permission to sail to a ship repair yard for repairs.

In our inquiry we found our SMS procedures were not fully implemented. ***standing orders, The, master, had, any written, not***

issued, . There was no instruction from him that he was to be called if ever any doubt arose concerning his ship's safety. The watch officer ignored our SMS procedures that the COLREGS were to be strictly followed and that the master was to be called if ever the watch officer was in doubt or felt that the VHF should be used as a collision avoidance tool. However, the essence seems to have been that the watch officer misunderstood the COLREGS in that he seems to have had no awareness that the "stand-on" ship should give way before a collision is inevitable.

I believe, before using the VHF, and can be a distraction, as it can give rise, watch officers, for close quarters or collision avoidance, ought to call the master, to doubts and misunderstandings,. I also feel that, in clear weather, the only assistance the watch officer needs to avoid close quarters situations developing, is his own sight and the compass bearings. Then he can decide if a risk of collision exists and what he needs to do. All else might become a distraction - even a dangerous distraction.

C. Writing skills

C.1 Find the parts of the reading text and answer the questions below:

1. Where are the Collision Rules compiled?
2. What are the six parts of the Colregs?
3. Which of the definitions in the Rule of the Road is the most important one?
4. What is a power-driven vessel?
5. What are the purposes of the lights laid down in the Rules?
6. What is the meaning of one prolonged blast on the ship's whistle given every two minutes
7. When does a ship give two prolonged blasts every two minutes?
8. Which whistle signals are used when the ship is anchored?
9. What do the steering and sailing rules lay down?
10. What happens if two ships are approaching each other head-on?
11. What is the rule when two vessels are on crossing courses?
12. What must the overtaking ship do?
13. How does a vessel give way to another?

D. Further reading & exercises

D1. Supply the missing COLREGS terms: (cross, traffic, passage, pass, giving, turn, flashing, radars, intentions, quarters, crossing, resumed, Road, alter, ARPA). Then make a list of times and actions taken. Finally, describe the story using the drawing below.

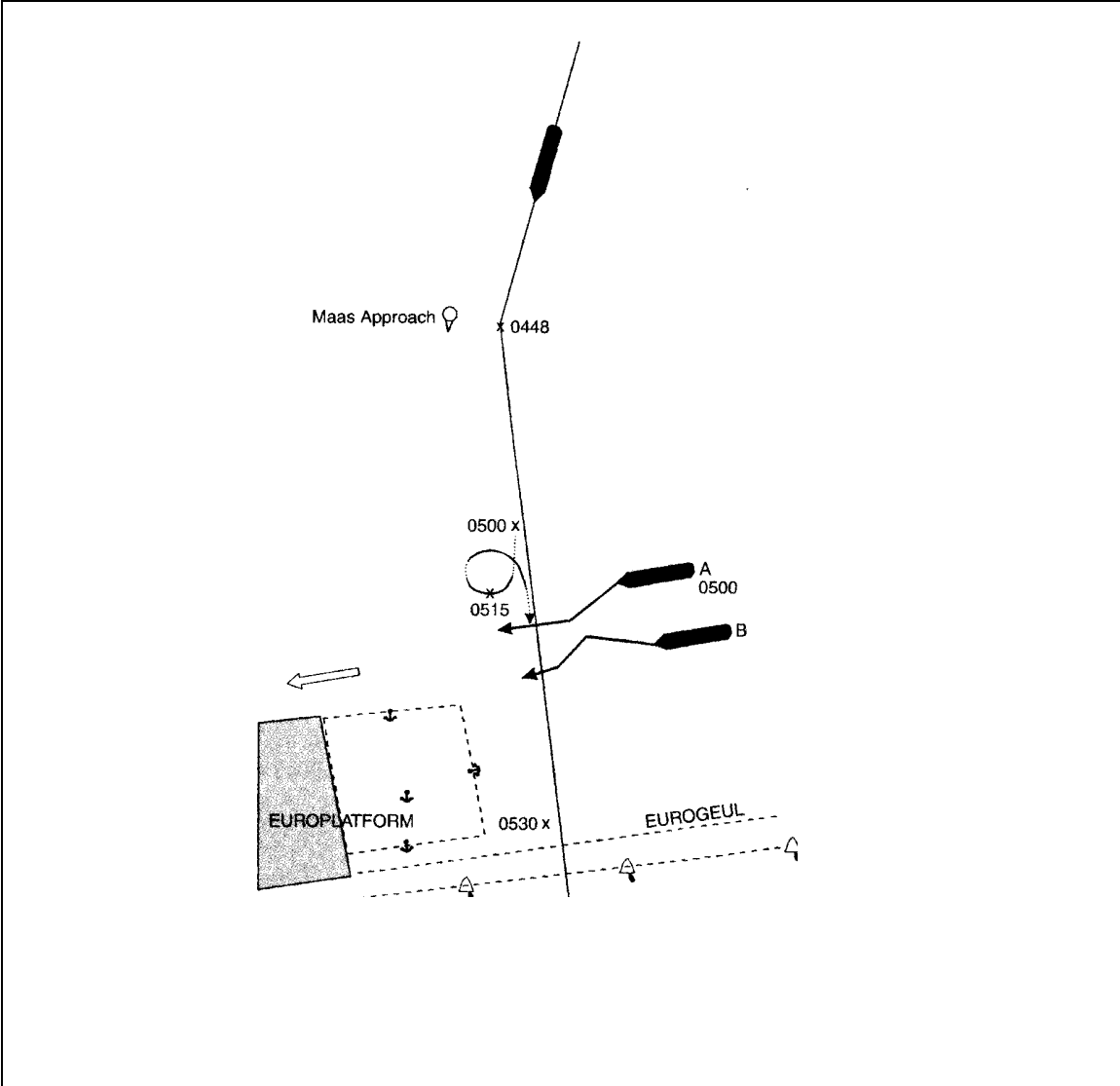
My own vessel was a large Ro-Ro on _____ from Hamburg to Antwerp. At 0445, Maas Approach was contacted on Ch 01 at position "Mike" and they were informed of my intentions to _____ the TSS. As can be seen from the accompanying chart, this was to be at right angles to the flow of _____.

Two outward bound ships had been plotted on my _____ and, after my course alteration, it was observed that they would both _____ astern but far too close for comfort. At about 0505, vessel "B" was seen to _____ to starboard and was plotted as passing well clear astern. Ship "A" meanwhile, was making no indications of _____ way.

About 0510; I altered to starboard and finished up taking a round _____ out of the ship. Shortly after I altered to starboard, ship "A" altered to port and started _____ her Aldis at me.

At this point ship "B" called him up and asked him his _____ as they were quickly approaching a close _____ situation. Ship "A" replied that the _____ ship was giving him no room!!! Ship "B" suggested that, seeing I was altering to starboard, ship "A" should now do the same. This he did and both ships then _____ their original courses.

I can only assume that the person in charge on ship "A" had no knowledge of the Rule of the _____, or there was no Officer on the bridge. No comments were forthcoming from Maas Approach who must have watched this incident on their _____ ..



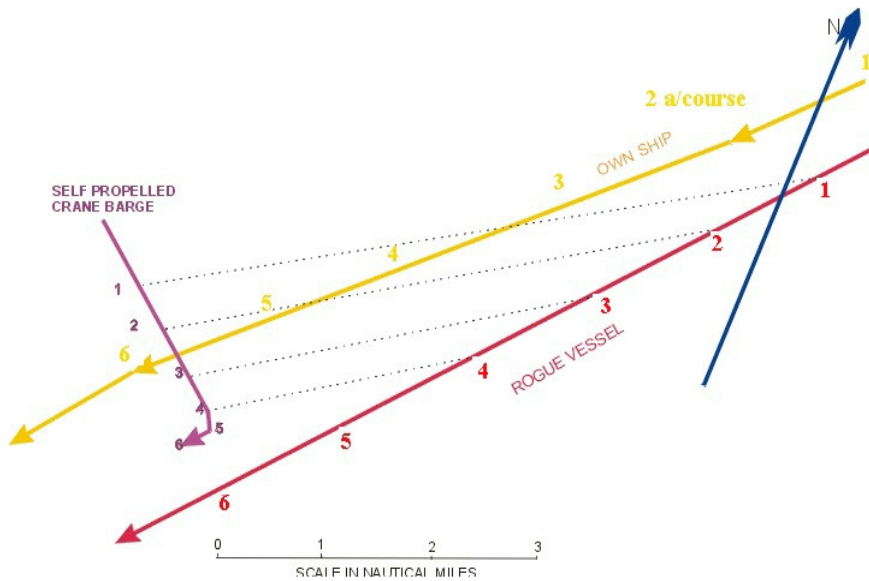
*D2. Supply the missing verb in the brackets into the right place and form
Failure to Comply*

MARS Report No. 200302

Own ship was a 300,000dwt tanker with a loaded draft of 21.75m. The "rogue" ship a bulk carrier of approximately 10,000dwt (*be*). Our course was 220T and our speed was 15 knots and we a slow moving crossing target on our starboard bow at over 10nm (*observe*) whilst she a bulk carrier on our own port side which was on a similar course to ours with a speed of 12.5 knots (*overtake*).

At a distance of 6nm (position 2) from the crossing target (now identified as a crane barge), own ship 5 degrees to starboard (*alter*) to increase the CPA of the crane barge to over 1nm. This would also allow the bulk carrier more sea room to alter to starboard in order to a potential close quarters situation with the crane barge (*avoid*).

However, the bulk carrier her course and speed (*maintained*) and when she was at position 3, the crane barge her on VHF Ch. 16 (*call*) and again a few minutes later. No response was received. Following this, the crane barge was observed to all her way off (*take*) and alter her heading to parallel that of the "rogue" vessel.



D3. Reading for gist: Read the text below quickly and find out the basic idea (gist)

Own ship was a 300,000dwt tanker with a loaded draft of 21.75m. The "rogue" ship was a bulk carrier of approximately 10,000dwt. Our course was 220T and our speed was 15 knots and we observed a slow moving crossing target on our starboard bow at over 10nm whilst overtaking a bulk carrier on our own port side which was on a similar course to ours with a speed of 12.5 knots.

At a distance of 6 nm (position 2) from the crossing target (now identified as a crane barge), own ship altered 5 degrees to starboard to increase the CPA of the crane barge to over 1nm. This would also allow the bulk carrier more sea room to alter to starboard to avoid a potential close quarters situation with the crane barge.

However, the bulk carrier maintained her course and speed and when she was at position 3, the crane barge called her on VHF Ch. 16 and again a few minutes later. No response was received.

Following this, the crane barge was observed to take all her way off and alter her heading to parallel that of the "rogue" vessel.

D4. Guided reading:

Read the text below carefully and find the information on the following (discuss the information first in your group):

1. Basic information on 'own ship'
2. Basic information on the 'target ship'
3. What was the manoeuvre of the ship (target) on our starboard bow?
4. What happened when our ship was at a distance of 6 nm from the crossing target (position 2)?
5. Describe the situation at Position 3.
6. What was the last manoeuvre to avoid the collision?

D5. Supply the missing adverbial or prepositional phrase below

(at an average speed of, right astern, during, still, at 1600, in hand steering, astern of, prior to, with a CPA of, 5 degrees to port, abeam, via VHF radio, within minutes, hard to port, in the vicinity, as quickly and safely, on her part, northeast of, no matter what, as per, one point forward of)

Near Miss Overtaking MAL

_____ an east bound transit of the Malacca Strait, own vessel was on a course of 1380 T, _____ 13.5 knots, this dependent on the tides. At around 0900 local time, the OOW reported a vessel _____, some 10 nautical miles, approximately on the same course and around 1.0 knot faster according to the ARPA. During the afternoon watch, the overtaking vessel _____ remained right astern and was identified as a LNG carrier.

The watch changed _____ when we were approaching the One Fathom Bank Separation Scheme. The auto pilot had been disengaged and the vessel was now _____. The LNG carrier was now less than 2 miles _____ us. The OOW reported that she would pass down our starboard side _____ 0.5 miles. This was considered too close and I advised the OOW to adjust the course _____, taking into account our approach to the Separation Scheme.

At 1700 the LNG carrier was _____ at a distance of 0.7 miles. The OOW had tried to establish contact _____ with the LNG carrier but there was no response. At about 1745 she was _____ our beam and altered her course to port. The alteration was such that it was not readily detected by the OOW or myself, either visually or by radar, but _____ the distance between us had reduced to 0.2 miles. I assumed the con

and immediately ordered the helmsman to put the wheel _____ . We were fortunate that there was no west bound traffic _____ as my only other option would have been to stop the engine. This action alone would not have relieved the situation _____ as an alteration.

Throughout the morning and afternoon, the LNG carrier had plenty of searoom to starboard. An early action _____ would have avoided embarrassing my vessel. By the time she had drawn abeam, I was already 1 mile _____ my proposed course line. She had totally disregarded Rule 13 (a) and was determined to maintain her course and speed _____. My actions _____ Rule 17 avoided a potentially disastrous collision. It was quite obvious that her alteration to port was a planned adjustment of course _____ her entering the TSS.

Further reading

Marine Accident Brief

**Collision of Liberian Containership *Columbus Canada* and U.S. Fishing Vessel
Black Sheep
Gulf of Mexico near Galveston, Texas
December 21, 1998
MAB-01/04**

Vessel No. 1:	Liberian Containership <i>Columbus Canada</i> , Lloyd's No.7800162,602.5 feet long, 92.1 feet wide, 32.8 foot draft, 24,080 gross tons, built in 1979
Vessel No. 2:	U.S. Fishing Vessel <i>Black Sheep</i> , O.N. 1055544,81.7 feet long, 24.0 feet wide, 12.0 foot draft, 147 gross tons, built in 1997
Accident Type:	Collision
Location:	Gulf of Mexico, Galveston Bay Entrance Channel Buoy "3" (latitude 29° 19.1' N, longitude 94° 39.0' W), near Galveston, Texas
Date:	December 21, 1998
Time:	2122 cst ¹
Owner/Operator:	<i>Columbus Canada</i> : Atlas International, Ltd., Monrovia, Liberia <i>Black Sheep</i> : Raymond La Force, Mobile, Alabama
Property Damage:	<i>Columbus Canada</i> - estimated at \$10,000 <i>Black Sheep</i> -total Loss
Injuries:	<i>Columbus Canada</i> - one <i>Black Sheep</i> - 1 minor
Complement:	<i>Columbus Canada</i> - 30 (26 crew and 4 passengers) <i>Black Sheep</i> - 3
The Accident	
<p>At 1800 on December 21, 1998, the loaded Liberian containership <i>Columbus Canada</i> departed Barbours Cut Terminal, at Morgan's Point, Houston, Texas for Manzanillo, Panama, with 26 crewmembers and 4 passengers.² A Houston pilot was in the wheelhouse to conn the vessel to the sea buoy (designated "GB" on the nautical chart of the area) in the Gulf of Mexico at the eastern end of the Galveston Bay Entrance Channel (GBEC).³ Also on watch in the wheelhouse were the master, the third mate, a helmsman, and a lookout. There was also one</p>	

seaman on the bow standing by the anchors.

According to the pilot, as the vessel passed between buoys 11 and 12,⁴ in the Inner Bar

Channel visibility reduced nearly to zero due to fog. The *Columbus Canada's* logbook shows that the vessel passed buoys 11 and 12 at 2057. The winds were light and variable, there was a 3-foot swell from the southeast and the current was ebbing at about 2 knots in a southerly direction. Fog signals were sounded as the vessel continued outbound towards the Gulf of Mexico.

The *Columbus Canada* made good a speed of about 10 knots as it continued outbound in the Inner Bar Channel. The pilot kept the ship in the center of the channel on course of 121_T⁵

. At 2115, in the vicinity of buoys 5 and 6 in the GBEC, the pilot acquired a radar contact at a range of 4 1/2 miles. The pilot continued to observe the approaching contact on two separate radars, one set on the 1 1/2-mile range scale and the other on the 3-mile range scale. Meanwhile, the master monitored the contact on the third radar. The contact appeared to be an inbound vessel approaching the *Columbus Canada* in the channel. It was later identified as the U.S. commercial fishing vessel *Black Sheep*.

While observing the contact on radar, the pilot attempted to establish radio communications with the vessel using radiotelephone VHF-FM channels 13 and 16. The pilot stated, and the ship's bridge watch on the *Columbus Canada* confirmed, that he made several calls on the radio but received no response.

The pilot had intended to disembark from the *Columbus Canada* between buoys 5 and 3.⁶ However, he decided to remain on board longer because he did not want to disembark while another vessel was approaching his ship and not answering his radio calls. The pilot, therefore, requested the pilot boat *Houston*, which was following the ship to retrieve the pilot when he disembarked, to continue following the ship until he determined it was safe to disembark.

On December 21, 1998, the U.S. Fishing Vessel *Black Sheep* was returning to Galveston because gale warnings (35-45 knot winds) had been forecast for the Gulf of Mexico. The vessel was making good a speed of about 8 knots while inbound in the middle of the GBEC on a course of about 300_T. In the wheelhouse were an unlicensed master⁷ and a deck hand. The third crewman was off watch in the galley. The vessel's foghorn was inoperative. The master used a searchlight and had the deck lights on in an effort to increase the visibility of the *Black Sheep* to other vessels. The *Black Sheep's* two radars were operating on the two-mile range scale.

The master of the *Black Sheep* stated that he heard one call from the *Columbus Canada* on VHF-FM channel 16, answered it, but did not receive a reply. The *Black Sheep* master acquired the *Columbus Canada* on radar about 1 1/2 mile ahead, located between buoys 3 and 5 in the center of the channel.

The vessels were meeting in a narrow channel during a period of restricted visibility. The Convention on the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS)⁸ applied and provided guidance on the proper course of action for the vessel

operators to follow to affect a safe passing.

The pilot on board the *Columbus Canada* stated that he initially observed the *Black Sheep* on radar and that it appeared to be on the inbound right-hand side of the channel and then moved toward the center of the channel. Between buoys 5 and 3, the pilot on the *Columbus Canada* momentarily changed course to the right about 7° to allow more room for the expected port-to-port meeting and then returned the vessel to its outbound course of 121°T. The master of the *Columbus Canada* stated that the vessels were about 1/2 mile apart at that time.

As the two vessels converged, the radar contact on the *Columbus Canada's* radar screen merged with the own ship display

at the center of the scope and the pilot ordered the rudder hard to starboard to avoid the approaching vessel. Upon sighting buoy 3 ahead at the extreme right hand side (outbound) of the channel, the pilot ordered left rudder to avoid colliding with the buoy and to remain in the channel. Shortly, thereafter, the pilot sighted the *Black Sheep* come out of the fog immediately ahead of his vessel and the vessels collided. The pilot stated, that although he had ordered left rudder, the bow of the *Columbus Canada* was still moving to the right at the time of impact.

According to the master of the *Black Sheep*, when the *Columbus Canada* was about 1 1/2 miles away, he believed that there was a risk of collision. As the vessels converged, the master of the *Black Sheep* stated that the image of the on-coming radar contact appeared on the radar scope to be crossing into the *Black Sheep's* side of the channel. To avoid collision, he turned the *Black Sheep's* rudder hard to port and passed ahead of the bow of the on coming ship. However, at 2122, the *ColumbusCanada* struck the starboard quarter of the *Black Sheep*. The location of the collision was on the outbound starboard edge of the channel, just past buoy no. 3. (See Figure 1.) At impact, the *Black Sheep's* hull was breached and immediately began to flood.

Figure 1. Sketch of Galveston Bay Entrance Channel Showing Location of Collision and Sunken Position of the *Black Sheep*.

The *Black Sheep's* master stated he had not heard any fog signals sounded by the *Columbus Canada*. Neither vessel's crew visually sighted the other vessel until moments before the collision. Also, neither vessel reduced speed before the collision.

Immediately after impact, the pilot on the *Columbus Canada* stopped the main engine and steered to the left to remain in the channel. At 2123, the pilot notified the Coast Guard Vessel Traffic Center in Houston of the accident and anchored to await orders from the Coast Guard. The pilot on the *Columbus Canada* also notified the operator on the pilot boat *Houston* of the collision and directed him to render assistance to the *Black Sheep*. At 2123, the operator on the *Black Sheep* notified the Coast Guard Group Galveston on channel 16 of the accident. The pilot boat arrived alongside the sinking *Black Sheep* within 1 to 5 minutes and took the three crewmembers aboard. The three crewmembers were transferred to a 41-foot Coast Guard rescue boat at 2210 and brought to shore.

The *Black Sheep* continued to flood until 2348 on December 21, when it sank in the vicinity of buoy 3. Salvors later recovered the *Black Sheep* and brought it to Port Bolivar, Texas, for repair.

Probable Cause

The National Transportation Safety Board has determined that the probable cause of the collision between the *Columbus Canada* and the *Black Sheep* was the decision by the master of the *Black Sheep* to turn directly into the path of the on-coming ship.

Adopted: August 22, 2001

1 All times in this report are central standard time, based on the 24-hour clock.

2 A freight vessel, on an international voyage, carrying passengers is not a passenger vessel unless it carries more than 12 passengers.

3 Distance from Morgan's Point to the eastern end of the Galveston Bay Entrance Buoy is about 31 miles.

4 The buoys are in sets: odd numbered buoys are on the right side of the channel and even numbered buoys are on the left side when proceeding to sea.

5 All courses in this report are true courses, unless otherwise stated.

6 These particular buoys are about 1.1 miles apart.

7 The masters of commercial fishing vessels of less than 200 gross tons are not required to be licensed.

8 Rule 9 governs navigation within a narrow channel and states that a vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable. Rule 19 provides guidance for vessels not in sight of one another when navigating in restricted visibility. Every vessel shall proceed at a safe speed adapted to the conditions of restricted visibility. A vessel, which detects by radar alone the presence of another vessel, shall determine if a close quarters situation is developing and/or risk of collision exists. Avoiding action shall be taken in ample time and if a change of course is taken, alteration of course to port (left) should be avoided in

a meeting or crossing situation. Or, if a close quarters situation cannot be avoided with a vessel forward, the vessel shall reduce speed to a minimum at which it can be kept on course. If necessary, take all way (movement of the vessel) off and navigate with caution until the danger of collision is over. Rule 6 describes safe speed as the speed at which a vessel "can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions." Factors to be considered for safe speed are: state of visibility, traffic density, maneuverability of the vessel, draft in relation to the depth of the water, operational radar, and limitations of the radar.

What are the devices below used for?



ONE-MINUTE GUIDE DECISION TREE

IN-SIGHT SITUATION	WHAT YOU SHOULD DO
<p>TRAFFIC SEPARATION SCHEME</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>If using scheme, stay in lane in direction of arrows on chart If crossing, do so at 90° and stay clear of vessels in lanes If sailing, fishing, or less than 20m in length, use inshore zones Do not anchor in or near the ends of traffic lanes If risk of collision occurs, use additional rules below</p>
<p>IN NARROW CHANNEL OR FAIRWAY</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>If crossing, do not impede vessels using channel If fishing or sailing, do not impede vessels using channel If overtaking, obtain agreement by sound signals Otherwise, keep to starboard edge of channel</p>
<p>OVERTAKING</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>If overtaking, stay clear and use sound signals if necessary If in doubt, assume you are overtaking If being overtaken, stand on and respond to sound signals</p>
<p>POWER-DRIVEN HEAD-ON</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>Both vessels alter course to starboard and pass port-to-port Use sound signals if you wish starboard-to-starboard (VHF may be substituted for sound signals under Inland Rules)</p>
<p>POWER-DRIVEN CROSSING</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>If other vessel is on your starboard, keep clear and pass aft If other vessel is on your port, maintain course and speed</p>
<p>TWO SAILBOATS MEETING</p> <p style="text-align: center;">↓ NO ↓</p>	<p>YES →</p> <p>If on different tacks, port-tack vessel stays clear If on same tack, windward vessel stays clear If on port tack and uncertain about windward vessel, stay clear</p>
<p>MIXED VESSEL TYPES</p>	<p>YES →</p> <p>Stay clear of vessels higher than you on the list below (to claim status, vessels must display shapes or lights): Not under command and restricted in ability to maneuver Constrained by draft Engaged in fishing (not angling) Sailing (engine not running) underway Power-driven underway Seaplane</p>
FOG SITUATION	WHAT YOU SHOULD DO
REGARDLESS OF TRAFFIC	Maintain safe speed, power-driven sound 5 sec. blast @ 2 min. Most other vessels sound one 5-sec. + two 1-sec. blasts @ 2 min.
HEAR SIGNAL AHEAD	Slow to bare steerageway or stop
RADAR TARGET FORWARD	Slow; do NOT turn to port unless overtaking
RADAR TARGET AFT OR ABEAM	Do NOT turn toward target

