



Lifelong
Learning
Programme



EU PROJECT- AVOIDING COLLISIONS AT SEA (ACTs)

Programme: Leonardo da Vinci

Beginning: 01. November 2013.

Duration: 24 months

Applicant organization: Faculty of Maritime Studies, University of Rijeka

The Convention of the International Regulations for Preventing Collisions at Sea (COLREGs) was adopted in 1972 and has been applied for the past 42 years. Various organizations engaged in researching marine accidents confirm that ship collisions are one of the most common types of accidents at sea. The accident reports show that the most common cause of collisions at sea is the lack of understanding of the COLREGs and their inappropriate use.

Therefore, the aim of this questionnaire is to check the level of understanding and the degree of correct application of COLREGs by students at maritime schools and colleges, seafarers on merchant ships, teachers and lecturers at maritime institutions, as well as with masters of the fishing boats and yachts.

The questionnaire is composed of four groups of questions:

1. General questions for identifying the target group of respondents.
2. Questions for testing the level of understanding and the degree of correct application of COLREGs.
3. Questions for testing the opinion and actions of seafarers.
4. Optional questions for teachers and lecturers at maritime colleges.

The questions for testing the level of understanding and the degree of correct application of COLREGs have been designed to determine which rules are difficult to understand and which rules are most often broken in practice. Such questions are more difficult than the questions which simply check knowledge and therefore it may take a bit more time to respond to them.

The survey is anonymous but if you want to receive a copy of the Questionnaire results please supply your e-mail address.

Your opinions and experiences will be an important contribution to the ACTs project and therefore we would like to thank you for your response in advance.

General Questions

1. Current occupation	<ul style="list-style-type: none"> a) Maritime high school student, b) Maritime College / University student, c) Apprentice officer (deck cadet), d) OOW, e) Master, f) Yacht master, g) Fishing vessel master, h) Pilot, i) Harbour master office employee, j) VTS operator, k) Maritime education and training lecturer, l) Other _____
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2. Nationality	
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3. Age	17 - 18	19 - 22	23 - 27	28 - 32	33 - 37	38 - 42	43 - 47	48 - 52	53 - 57	58 - 62	≥ 62
	<input type="checkbox"/>										

4. Educational background (more than one answer is possible)							
	Primary Education Graduate (EQF Level 1-2)	Secondary/High School Education Graduate (EQF Level 3)	Vocational Training Graduate (EQF Level 4)	Diploma Level Graduate (EQF Level 5)	University Graduate (EQF Level 6)	Postgraduate Studies (Master's Level - EQF Level 7)	Postgraduate Studies (PhD holder - EQF Level 8)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Where (Country)							

5. Seagoing experience	No sea experience	≤ 6 months	≤ 1 year	≤ 5 years	≤10 years	> 10 years
	<input type="checkbox"/>					

Note: If You have **no sea experience** You don't need to answer questions from 6 – 10.

6. Type of the vessel on which you have the most seagoing experience:	<ul style="list-style-type: none"> a) general cargo vessel, b) container vessel, c) liquid cargo vessel, d) bulk carrier, e) passenger vessel, f) yacht, g) fishing vessel, h) other.
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7. Length of the vessel (meters)	0 - 24	25 - 50	51 - 100	101 - 200	201 - 300	> 300
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Have you ever been serving on board a ship when it was involved in a collision?	<input type="checkbox"/> Yes <input type="checkbox"/> No					
Note: If Your answer on question 8 is No , You don't need to answer questions from 9 - 10.						
9. If you have served on board a ship when it was involved in a collision where did the collision occur?	a) high seas, b) coastal waters, c) TSS area, d) narrow channel, e) port approach, f) anchorage, g) harbour area.					
10. What were the visibility conditions when the collision occurred?	<input type="checkbox"/> daylight <input type="checkbox"/> night		a) under 0.5 M, b) 0.5 – 2 M, c) 2 – 6 M, d) over 6 M.			
11. Apart from any mandatory COLREGs training needed to achieve your current rank, have you every participated in any additional COLREGs training courses? Note: If You are maritime high school student or maritime College / University student You don't need to answer this question.	<input type="checkbox"/> Yes <input type="checkbox"/> No					
12. Your e-mail address This survey is anonymous but if you want to receive a copy of the Questionnaire results please supply your e-mail address.	_____					

1. The COLREGs apply to all vessels which sail:

- a) Only in international waters
- b) In international and territorial waters
- c) Waters under the jurisdictions of a coastal state
- d) Upon the high seas and in all waters connected with them and which are navigable by seagoing vessels

2. COLREGs interfere with the operation of any special rules made by an appropriate authority.

- a) Correct
- b) Incorrect

3. Every vessel engaged in fishing with nets, lines, trawlers or other fishing apparatus which restricts manoeuvrability is considered a "Vessel restricted in her ability to manoeuvre".

- a) Correct
- b) Incorrect

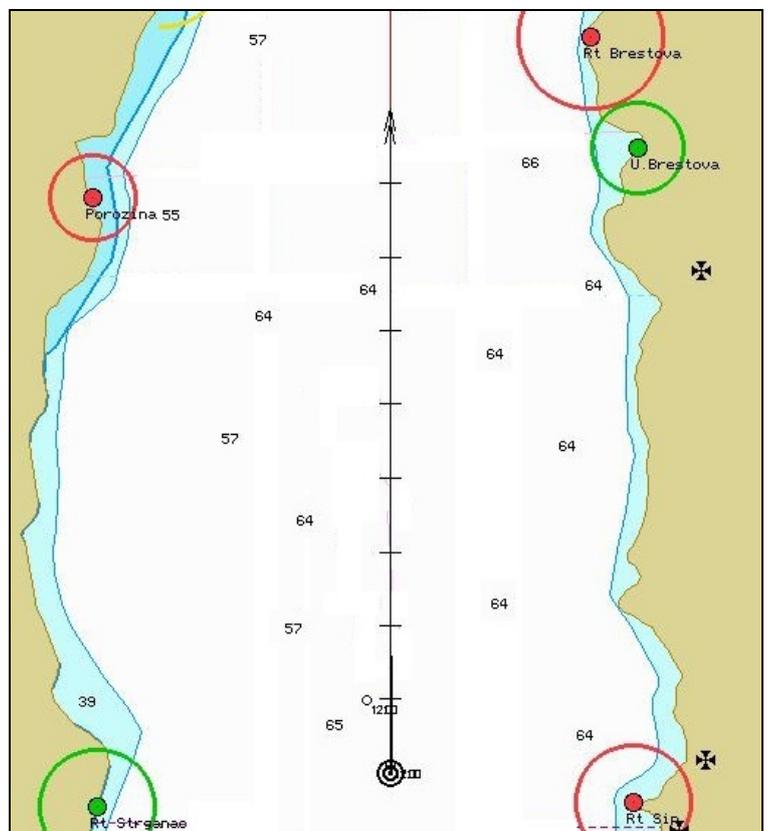
4. A vessel is considered as a "Vessel constrained by her draught" only when it is propelled by machinery, has a displacement greater than 100,000 tons and a draught greater than 12 meters

- a) Correct
- b) Incorrect

5. Vessel LOA = 300 meters and draught 15.5 meters sails in a narrow channel.

This vessel is considered a "Vessel constrained by her draught".

- a) Correct
- b) Incorrect



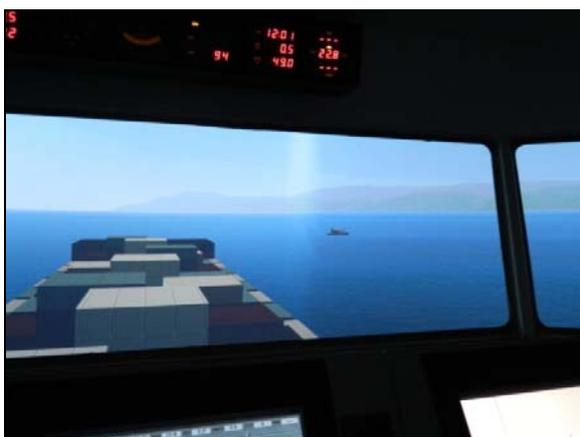
6. A vessel is awaiting the embarkment of her pilot, engine has been stopped and her speed is 0 knots. This vessel is considered as a vessel "underway".
- Correct
 - Incorrect

7. Vessel A is awaiting the embarkment of her pilot, engine has been stopped and her speed is 0 knots. Approaching on her starboard side is vessel B on relative bearing 042° and a risk of collision exists.



- In this case the action to avoid collision shall be taken by:
- Vessel A, because vessel B is approaching on her starboard side
 - Vessel B, because vessel A is not making way through the water

8. A container vessel LOA = 336 meters, speed 15 knots, is sailing on the high seas. On her starboard side is a pleasure craft LOA=8 meters, speed 5 knots, crossing and a risk of collision exists.



- In this case the action to avoid collision shall be taken by:
- The container vessel, because pleasure craft is approaching on her starboard side
 - The pleasure craft, because to the container vessel it is more difficult to avoid collision due to her manoeuvring characteristics

9. "Restricted visibility" means conditions when visibility is less than the stopping distance of the vessel.

- a) Correct
- b) Incorrect

10. You are on vessel LOA = 225 meters sailing on the high seas under "restricted visibility" conditions. In this case which method shall the vessel use to maintain a proper lookout and to make a full appraisal of any situation and the risk of collision?

- a) Using RADAR due to "restricted visibility"
- b) By sight and hearing as well as by all available means

11. When shall a vessel proceed at "safe speed"?

- a) Under "restricted visibility" conditions.
- b) At all times.
- c) In straits, channels and under difficult conditions.

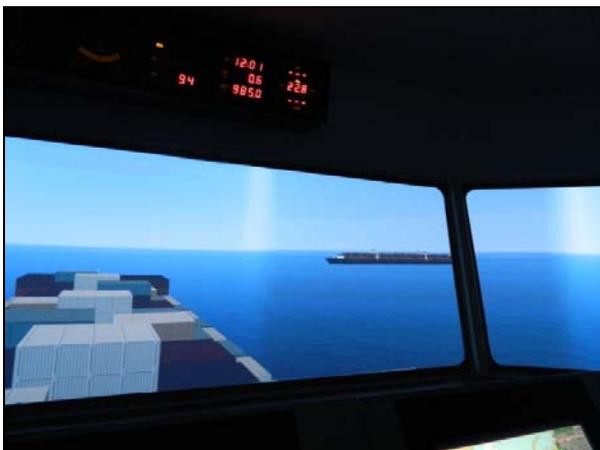
12. The term "safe speed" means the maximum allowed speed for the vessel in certain circumstances?

- a) Correct
- b) Incorrect

13. When does the risk of collision exist?

- a) When vessels are navigating on opposite courses and the compass bearing changes
- b) When the compass bearing of an approaching vessel does not appreciably change but the distance between vessels is reducing
- c) When the approaching speed between the two vessels is very high and the compass bearing changes

14. Power-driven vessel A, LOA = 200 meters is crossing with another power-driven vessel B, LOA = 200 meters on the starboard side, and the risk of collision exists. Vessel A shall take action to avoid collision with vessel B.



Which action to avoid collision is more efficient?

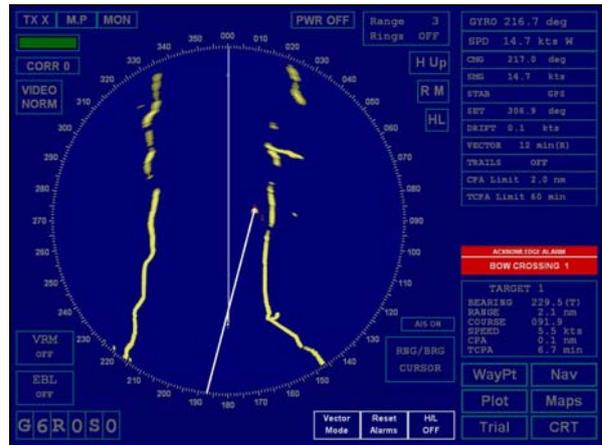
- a) Altering course
- b) Altering speed

15. Rule 8 (Action to avoid collision) states that "action taken to avoid collision shall be taken in such a way to avoid close-quarters situations with other vessels".

In your opinion term the "close-quarter situation" means:

- a) The minimum distance between vessels where the collision can still be avoided by one vessel manoeuvring
- b) The minimum distance between vessels where the collision can still be avoided by both vessels manoeuvring
- c) The minimum distance between vessels where the collision can still be avoided by one vessel manoeuvring, and that such action will result in the vessels passing at a safe distance

16. A power-driven vessel LOA = 250 meters, is sailing through a narrow channel. On her starboard side passenger vessel LOA = 18 meters is crossing, and a risk of collision exists.



Which rule applies in such a case?

- a) Rule 15 (Crossing situation), because both vessels are power-driven vessels
- b) Rule 18 (Responsibilities between vessels), because small vessels must avoid larger vessels
- c) Rule 9 (Narrow channel), because larger vessels can only safely navigate within a narrow channel

17. What is considered as a "Narrow channel"?

- a) A fairway where the width of the sailing area is less than 10 times the breadth of the vessel
- b) A fairway where the vessel cannot make a whole turning circle by using deflection of the rudder only
- c) A fairway where the vessel can safely navigate only within a narrow channel

18. You are in charge of a 250-meter freight "Vessel constrained by her draft" proceeding down a narrow channel. There is a "Vessel engaged in fishing" on your starboard bow half a mile away.



According to Rule 9 (Narrow channel), which of the following statements is true?

- a) You are not to impede the fishing vessel
- b) If you are in doubt as to the fishing vessel's intentions you may sound at least five short and rapid blasts on the whistle
- c) You are to slow to bare steerageway until clear of the fishing vessel

19. Your vessel is crossing a narrow channel. A vessel to port is within the channel and crossing your course. She is showing a black cylinder.



You should:

- a) Hold your course and speed
- b) Not impede the other vessel
- c) Exchange passing signals

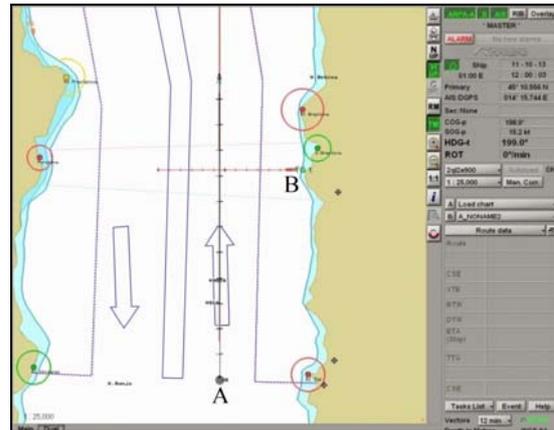
20. Which vessels shall use the traffic separation schemes?

- a) All power-driven vessels
- b) All vessels
- c) All vessels which are obligated under rules made by an appropriate authority
- d) All power-driven vessels, except vessels under 20 meters in length, fishing vessels and sailing vessels

21. When is a vessel allowed to enter a separation zone or cross a separation line?

- a) When the hydro-meteorological conditions make it difficult to navigate in the general direction of traffic flow
- b) In cases of emergency, to avoid immediate danger or when engaging in fishing within a separation zone
- c) The separation zone shall not be crossed in any circumstances

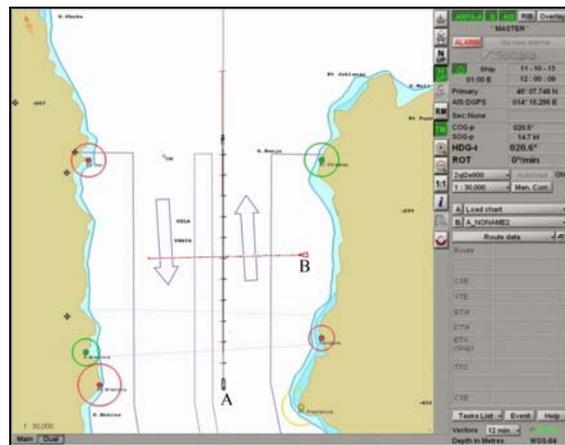
22. A power-driven vessel, vessel A, LOA = 187 meters, is proceeding in a traffic separation scheme lane. From her starboard side, a RO-RO passenger vessel, vessel B, LOA = 150 meters is crossing the traffic separation scheme.



If a risk of collision exists which vessel is the stand-on vessel?

- a) Vessel A
- b) Vessel B

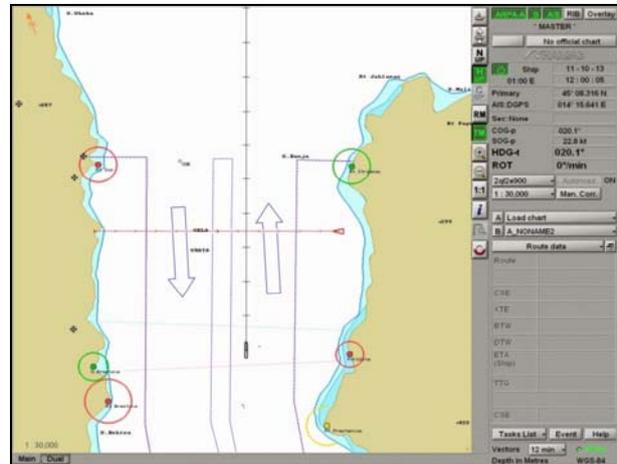
23. Vessel A, LOA = 229 meters, proceeding in a traffic separation scheme lane is a "Vessel constrained by her draft". From her starboard side a RO-RO passenger ship, vessel B, LOA = 150 meters is crossing the traffic separation scheme.



Which rule applies in such case?

- a) Rule 10 (Traffic separation schemes), because vessels are sailing in a traffic separation scheme
- b) Rule 15 (Crossing situation), because sailing in traffic separation schemes does not relieve any vessel of her obligation under any other rule
- c) Rule 18 (Responsibilities between vessels), because this is crossing situation between two vessels with different responsibilities

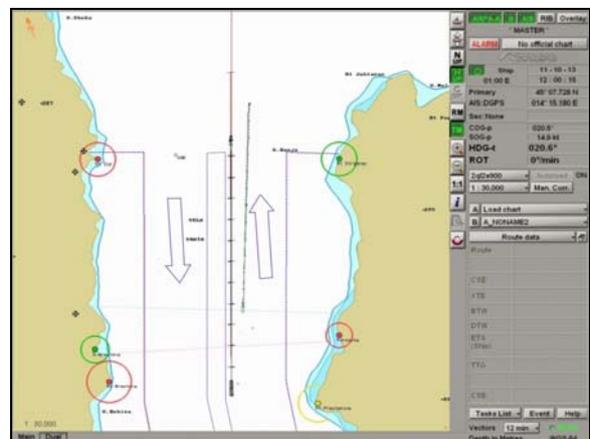
24. A tanker vessel LOA = 336 meters, speed 15 knots, is proceeding in a traffic separation scheme. From her starboard side, a passenger ship LOA= 18 meters, speed 5 knots is crossing the traffic separation scheme. Therefore there is a risk of collision.



In this case the action to avoid collision shall be taken by:

- The tanker vessel, because passenger vessel is approaching on her starboard side
- The passenger vessel, because both vessels are sailing in traffic separation scheme

25. Container vessel LOA= 336 meters, speed 15 knots is proceeding in a traffic separation scheme and overtakes bulk carrier LOA = 229 meters, speed 12 knots on a parallel course.

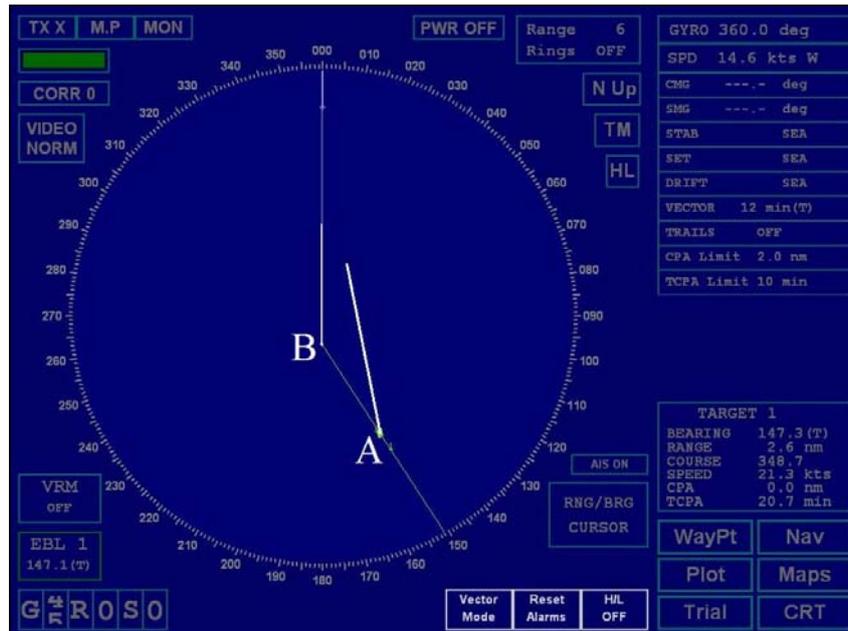


In order to increase the safe distance between vessels is container vessel allowed to enter the opposite traffic lane?

- YES, if there are no vessels proceeding in the opposite traffic separation lane
- NO, because in normal circumstances any vessel shall not enter or cross a separation line or zone

26. What is considered for two vessels to be "in sight of one another" when they are equipped with RADAR?
- When visibility conditions are good and vessels can see each other by eye
 - When both ships can detect each other by RADAR, but without using AIS device data
 - When both ships can detect each other by RADAR, using AIS device data

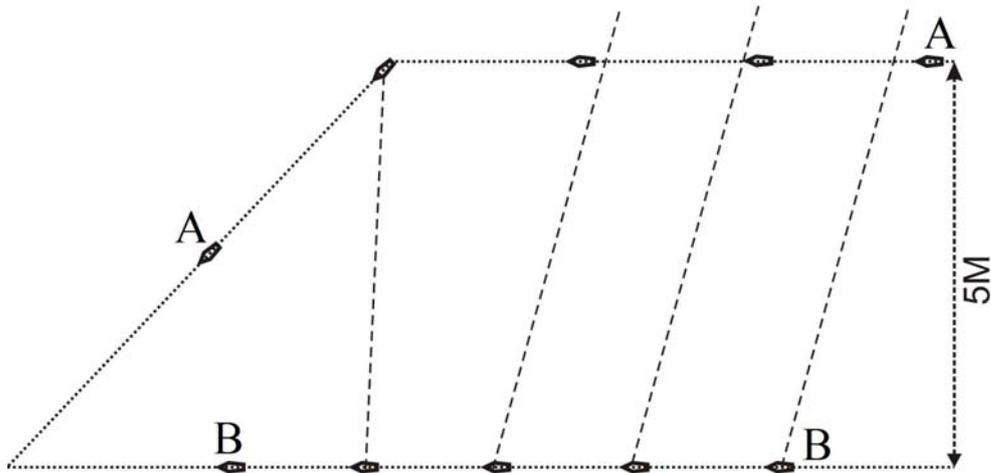
27. Vessel A is overtaking vessel B on the high seas. The relative bearing of vessel A as sighted from vessel B is 147°.



From which side can vessel A overtake vessel B?

- From the starboard side
 - From the port side
 - From both sides
28. What action shall an overtaken vessel take when the overtaking vessel is not overtaking at a safe distance?
- Warn other vessel using prescribed sound signals and/or take such action to increase safe distance between vessels
 - Keep course and speed because the overtaken vessel is the stand-on vessel

29. Vessels A and B are sailing on parallel courses at a distance of 5 miles. The speed of vessel A is greater than speed of vessel B. When they are abeam, vessel A alters her course to port and a risk of collision exists.



Which rule applies in such case?

- Rule 13 (Overtaking), vessel A shall keep out of the way of vessel B
- Rule 15 (Crossing situation), because vessel A is on the starboard side of vessel B
- In such a case it is not possible to determine which rule shall apply, therefore vessels should contact each other using VHF and agree for appropriate manoeuvre

30. During night time sailing vessel A and vessel B observe occasionally the red, occasionally green and occasionally both sidelights of other vessel.

Which rule shall apply in such case?

- Rule 14 (Head-on situation), because two power-driven vessels are meeting on reciprocal or nearly reciprocal courses
- Rule 15 (Crossing situation), because the vessels are not observing both sidelights of the other vessel constantly
- In such case it is not possible to determine which rule shall apply, therefore vessels should contact each other using VHF and agree for appropriate manoeuvre

31. Vessel A constantly observes vessel B right ahead (relative bearing 000°), but can only see vessels B's red sidelight and masthead lights.



Which rule shall apply in such case?

- a) Rule 14 (Head-on situation), two power driven vessels meeting on reciprocal or nearly reciprocal courses
- b) Rule 15 (Crossing situation), because vessel A constantly observes vessel B's red sidelight and masthead lights, they thus see the port side of the vessel B
- c) In such case it is not possible to determine which rule shall apply, therefore vessels should contact each other using VHF and agree for appropriate manoeuvre

32. On the high seas vessels A and B (both LOA = 200 meters) are passing starboard to starboard on reciprocal courses with a CPA which cannot be considered as a safe distance.



What actions should be taken by each vessel?

- Vessels shall apply rule 14 (Head-on situation) and each vessel shall alter her course to starboard so that each shall pass on the port side of the other
- One or both vessels which consider that the CPA is too small should alter course to port to increase the meeting distance and pass starboard to starboard
- In such case it is not possible to determine which rule shall apply, therefore vessels should contact each other using VHF and agree for appropriate manoeuvre

33. On the high seas vessel A constantly observes vessel B on her starboard side (relative bearing 030°).



In this case vessel A shall:

- Alter her course to starboard and pass astern of vessel B
- Alter her course to port because of the small relative bearing to vessel B which will result in greater bow crossing
- Increase speed and cross ahead of vessel B

34. On the high seas vessels A and B (LOA = 200 meters) are meeting in a crossing situation and a risk of collision exists. Vessel A which is the give-way vessel is not taking appropriate action.



When will vessel B, the stand-on vessel, take action to avoid collision with vessel A?

- When the distance between vessels is reduced to 1 M
- 5 minutes after the stand-on vessel determines that the risk of collision exists (CPA = 0) and that the give-way vessel A is not taking any action
- At the distance, which is smaller than the normal distance at which give-way vessel should take action to avoid collision, but is still great enough to avoid collision
- Immediately after vessel B gives the warning signal and vessel A does not take any action

35. On the high seas vessels A and B (LOA = 200 meters) are meeting in a crossing situation and a risk of collision exists. Vessel A which is the give-way vessel is not taking appropriate action.



Which action should vessel B not take to avoid collision?

- Alter course to starboard and make a turn over starboard side
- Turn port and cross vessel A astern
- Reduce speed or stop and wait until vessel A passes
- Give warning signals and if necessary repeat them if vessel A does not take appropriate action

36. Vessel A is a "Vessel restricted in her ability to manoeuvre". Vessel A is overtaking power-driven vessel B and the risk of collision exists.



Which rule applies in such a case?

- a) Rule 13 (Overtaking), because vessel A shall keep out of the way of the vessel being overtaken (vessel B)
- b) Rule 18 (Responsibilities between vessels), because vessel B is a power-driven vessel and shall keep out of the way of a "Vessel restricted in her ability to manoeuvre"
- c) In such a case it is not possible to determine which rule shall apply, therefore vessels should contact each other using VHF and agree for appropriate manoeuvre

37. Rule 19, "Conduct of vessels in restricted visibility", applies when:

- a) Visibility is less than the stopping distance of your vessel
- b) Vessels are sailing at night
- c) Visibility is less than 2 M
- d) Vessels are not in sight of one another when navigating in or near an area of restricted visibility
- e) Vessels are not equipped with RADAR
- f) Visibility is less than the visibility range of the navigation lights

38. In an area of restricted visibility, vessel A on her starboard side is observing vessel B (relative bearing 100°) using RADAR. The distance between the vessels is decreasing and a risk of collision exists.



Which action can vessel A not take?

- a) Alter course to port
- b) Alter course to starboard
- c) Alter speed (increase or decrease)

39. In your opinion what is the "safe passing distance" between two power-driven vessels LOA = 200 meters when meeting on the high seas?

The safe passing distance (CPA) in this case is _____

40. Two power-driven vessels, LOA = 200 meters speed 15 knots are crossing on the high seas and the risk of collision exists. You are on the give-way vessel. At what distance between the vessels should you start take action to avoid collision?

The distance between vessels in such a case should be _____

41. Rule 2 (Responsibility) states that nothing in these rules shall exonerate the master or crew (OOB) from the consequences of any neglect to comply with any of these rules which may be required by the "ordinary practice of seamen" or required by the special circumstances of the case.

The term "ordinary practice of seamen" means:

- a) Actions taken by the master and officer who have gained experience while sailing on vessels
- b) Actions taken by all seamen who gained education in compliance with STCW convention
- c) Actions which can be expected from ordinary (average) master or officer

42. Which rules are the hardest to understand? (You can pick more than one rule)

General	Conduct of vessels in sight of one another
<input type="checkbox"/> Rule 1: Application	<input type="checkbox"/> Rule 11: Application
<input type="checkbox"/> Rule 2: Responsibility	<input type="checkbox"/> Rule 12: Sailing vessels
<input type="checkbox"/> Rule 3: General definitions	<input type="checkbox"/> Rule 13: Overtaking
Steering and sailing rules	<input type="checkbox"/> Rule 14: Head on situation
<input type="checkbox"/> Rule 4: Application	<input type="checkbox"/> Rule 15: Crossing situation
<input type="checkbox"/> Rule 5: Look-out	<input type="checkbox"/> Rule 16: Action by give-way vessel
<input type="checkbox"/> Rule 6: Safe speed	<input type="checkbox"/> Rule 17: Action by stand-on vessel
<input type="checkbox"/> Rule 7: Risk of collision	<input type="checkbox"/> Rule 18: Responsibilities between vessels
<input type="checkbox"/> Rule 8: Action to avoid collision	Conduct of vessels in restricted visibility
<input type="checkbox"/> Rule 9: Narrow channel	<input type="checkbox"/> Rule 19: Conduct of vessels in restricted visibility
<input type="checkbox"/> Rule 10: Traffic separation scheme	

43. The rules are taught by different methods. In your opinion which of the stated methods is most effective? Please rank them in accordance to their importance (1 is the least, 7 is the most)

<input type="checkbox"/>	Classroom teaching with teacher explanation of each rule
<input type="checkbox"/>	Using self e-learning (self- study, self-improvement type with books or CDs)
<input type="checkbox"/>	Learning COLREGs using navigation simulator
<input type="checkbox"/>	Learning COLREGs using real-life or prepared scenarios e.g. Animations
<input type="checkbox"/>	Online learning in a group (Incorporates computer, web based and e- learning)
<input type="checkbox"/>	Distance learning – in a group (Interaction with instructor and students from a distance)
<input type="checkbox"/>	Practical training on board

Note: If You have **no sea experience** You don't need to answer questions from 44 – 46.

44. Do You use VHF contact for avoiding collision at sea?

- Yes
 No

45. Do You use VHF contact for avoiding collisions at sea more frequently since AIS equipment became mandatory on vessels?

- Yes
 No

46. Do you believe that using VHF contact can be useful for preventing collisions at sea?

- Yes
 No

Note: If You are not a maritime education and training lecturer You don't need to answer following questions							
47. Please rate how often you use the following teaching methods.	1	2	3	4			
	Never	Sometimes	Often	Every lesson			
Lectures (where students must listen and take notes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
'Communicative approach' style lessons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Distance learning (correspondence courses)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Online learning in a group (incorporates computer, web based and e- learning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pictures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Audio recordings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Animations (scenario based applications)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Discussions of real case studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Full mission simulator exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Individual learning (self- study books or CDs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<p>48. How many years of experience did you have in merchant ships at sea before teaching students?</p> <p>a) Less then 1 year b) 1-5 years c) 5-10 years d) Over 10 years</p>							
49. Rank the following based on the difficulties your students have in interpreting the COLREGs rules?							
Very difficult	Difficult	Neutral	Easy	Very easy			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
50. Which steering rules are the most difficult for your students/trainees to understand?							
Application	<input type="checkbox"/>	Responsibility	<input type="checkbox"/>	General definitions	<input type="checkbox"/>	Lookout	<input type="checkbox"/>
Safe speed	<input type="checkbox"/>	Risk of collision	<input type="checkbox"/>	Action to avoid a collision	<input type="checkbox"/>	Narrow channels.	<input type="checkbox"/>
Traffic separation schemes	<input type="checkbox"/>	Sailing vessels	<input type="checkbox"/>	Overtaking	<input type="checkbox"/>	Head-on situation	<input type="checkbox"/>
Crossing situations	<input type="checkbox"/>	Action by give-way vessel	<input type="checkbox"/>	Action by stand-on vessel	<input type="checkbox"/>	Responsibilities between vessels	<input type="checkbox"/>
Conduct of vessels in restricted visibility	<input type="checkbox"/>						