

# Week 8

2023 - 24



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## The Differences Table

### Standard Port NAMLEY HARBOUR (←)

Times				Height (metres)			
High Water		Low Water		MHWS	MHWN	MLWN	MLWS
0000	0600	0000	0600	4.0	3.4	1.1	0.4
1200	1800	1200	1800				
Differences FARLOW							
-0040	-0018	-0010	-0020	+0.7	+0.3	+0.7	+0.2



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# Techniques for Visual Fixing Exercise - Debrief



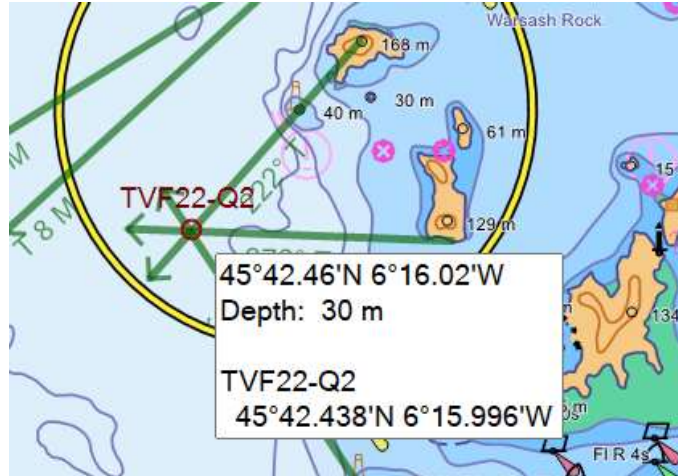
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## Question 1



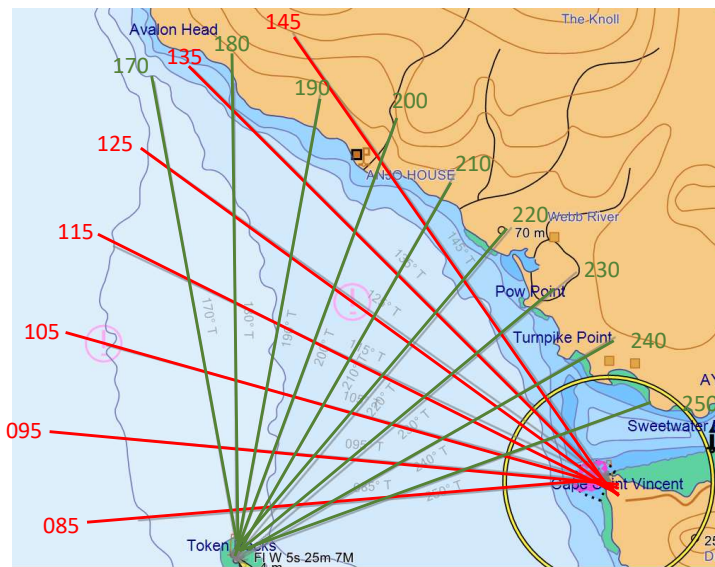
4

## Question 2



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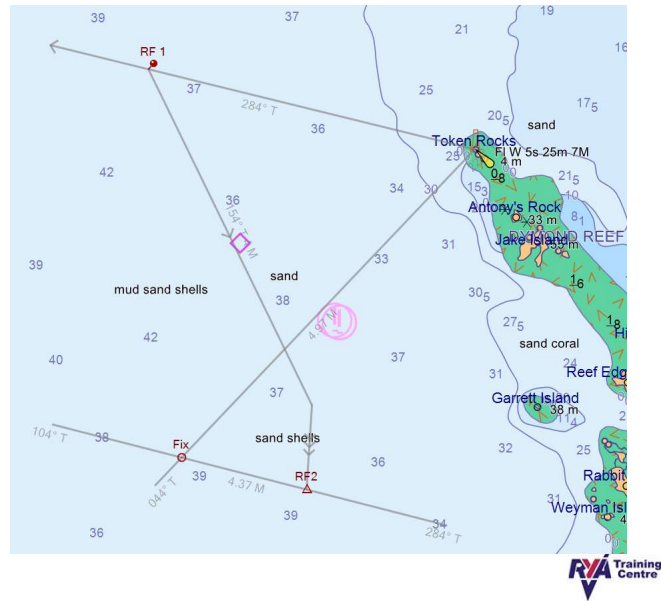
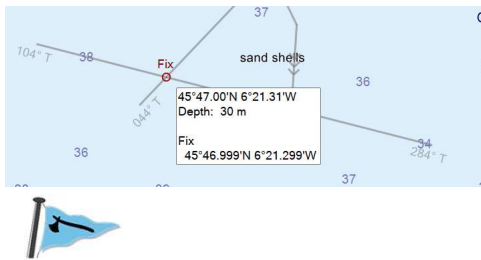
## Question 3



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### Question 4

C	D	M	V	T
155	(+) 5E	160	(-) 6W	154
		110	(-) 6W	104
		050	(-) 6W	044



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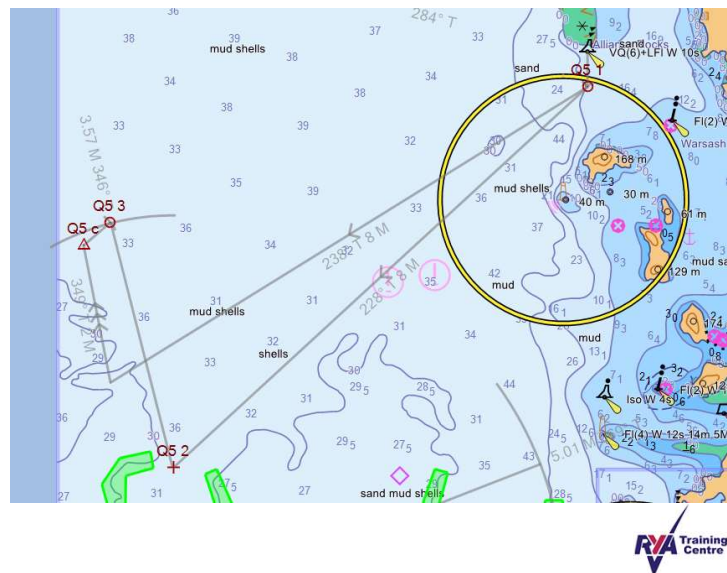
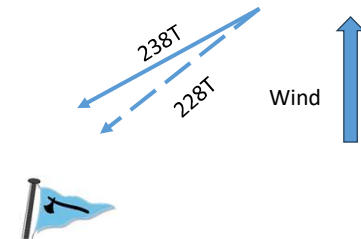
### Question 5

Part a)

C	D	M	V	T
235	1W	234	6W	228

Part c)

Heading 228T  
 L'way + 010  
 Water Track 238T



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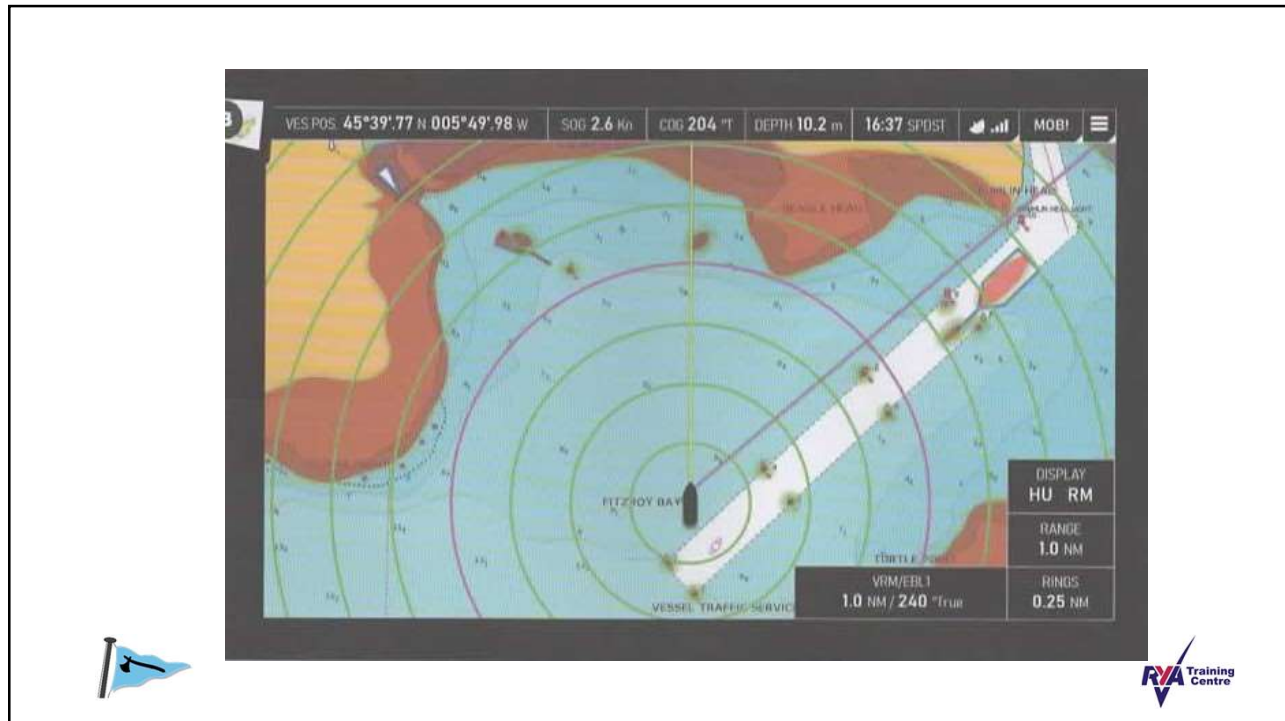
# Electronic Aids to Navigation Exercise – Remaining Questions



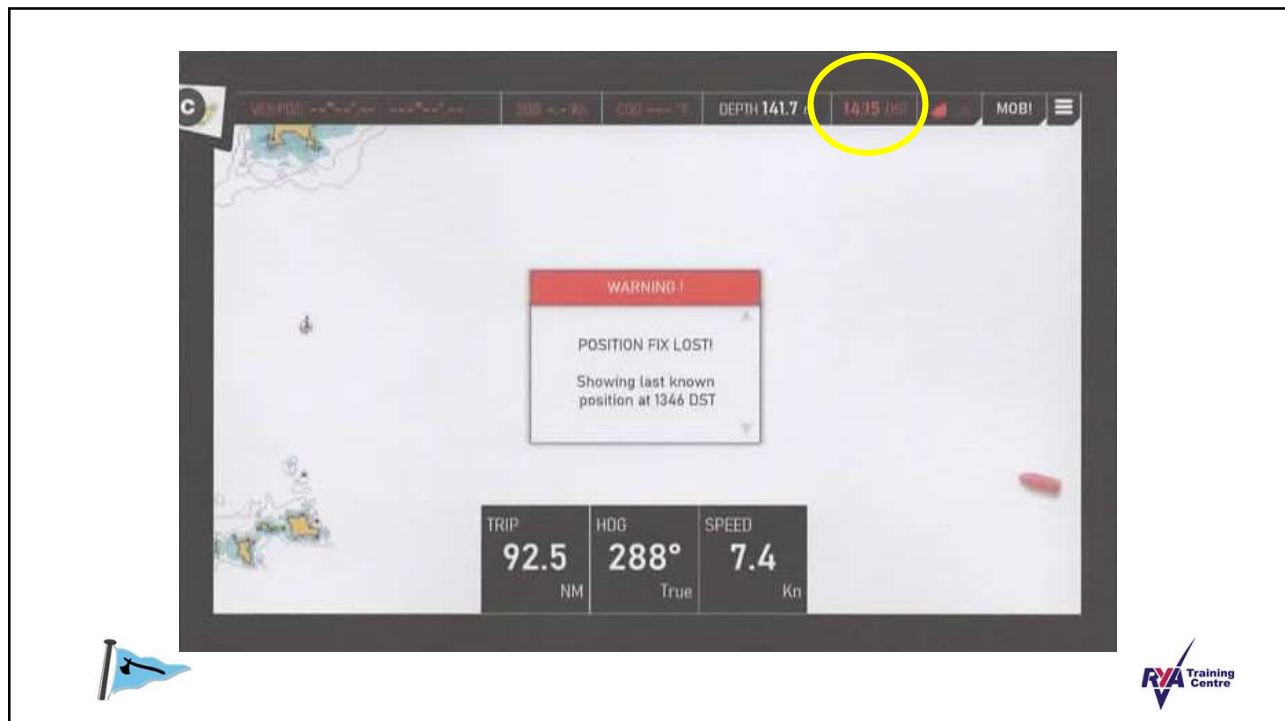
9



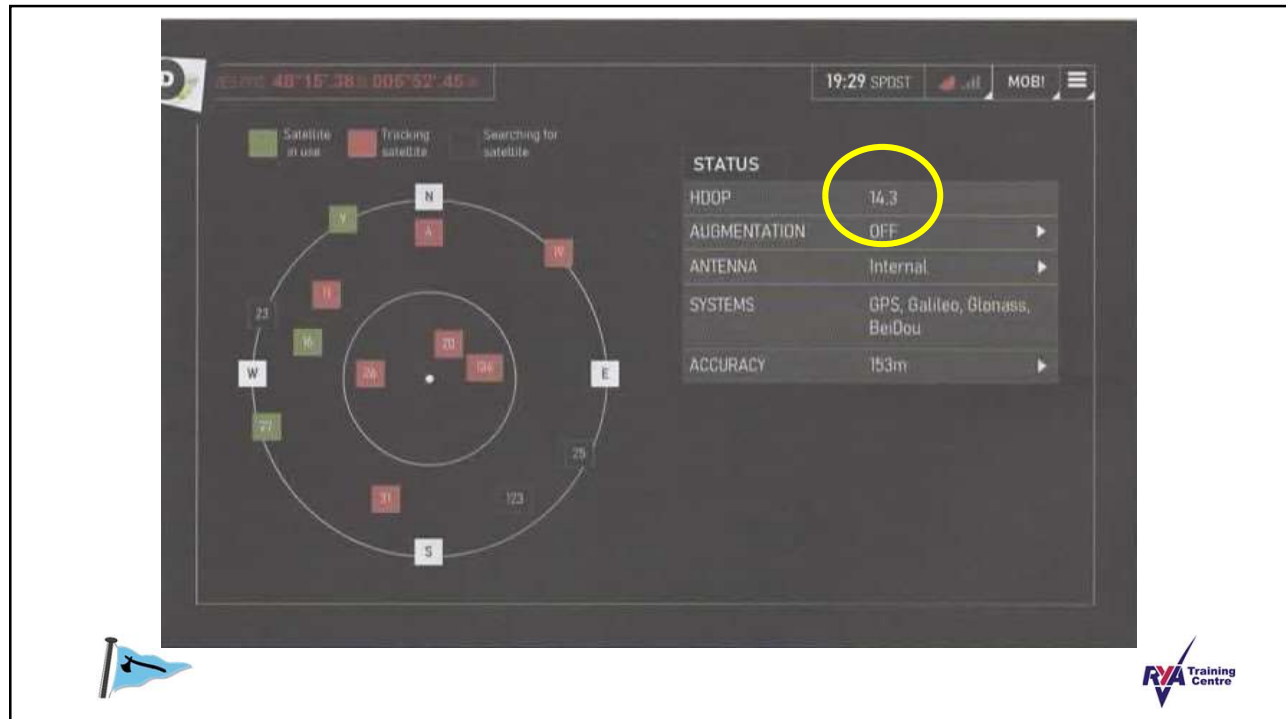
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## HDOP Scale

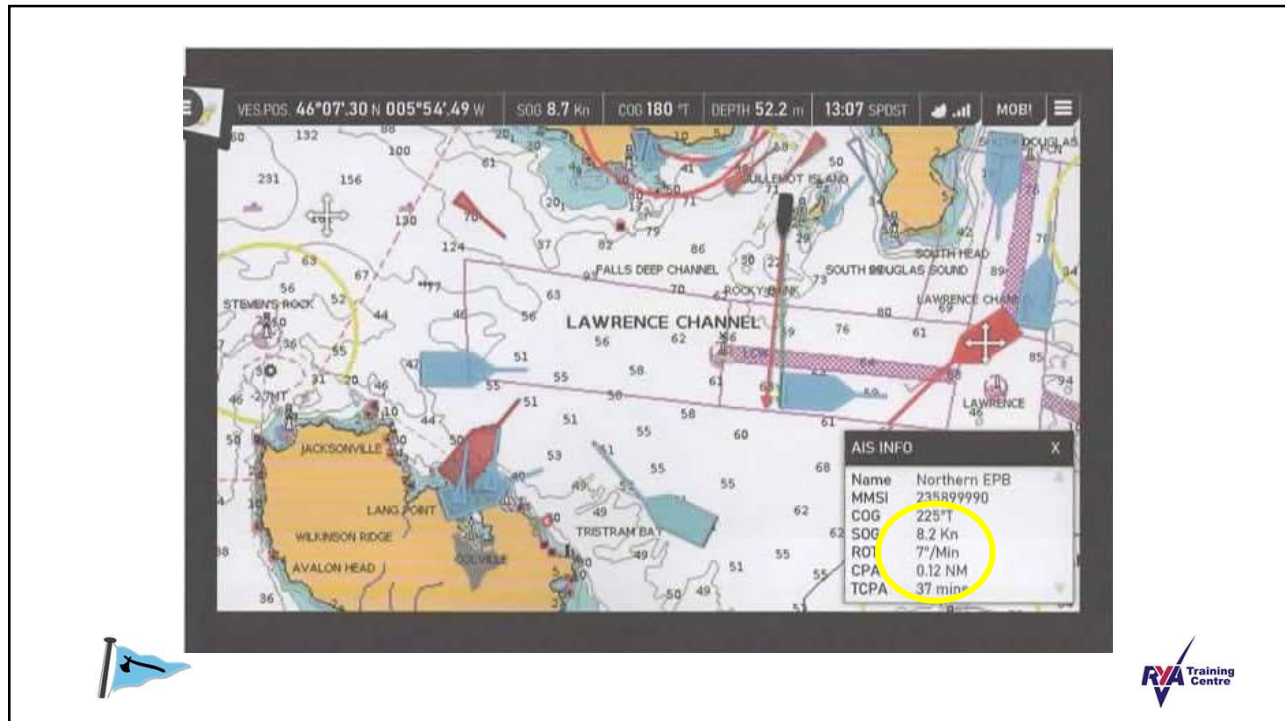
DOP Value	Rating	Description
< 1	Ideal	Highest possible confidence level to be used for applications demanding the highest possible precision at all times.
1-2	Excellent	At this confidence level, positional measurements are considered accurate enough to meet all but the most sensitive applications.
2-5	Good	Represents a level that marks the minimum appropriate for making business decisions. Positional measurements could be used to make reliable in-route navigation suggestions to the user.
5-10	Moderate	Positional measurements could be used for calculations, but the fix quality could still be improved. A more open view of the sky is recommended.
10-20	Fair	Represents a low confidence level. Positional measurements should be discarded or used only to indicate a very rough estimate of the current location.
>20	Poor	At this level, measurements are inaccurate by as much as 300 meters with a 6-meter accurate device ( $50 \text{ DOP} \times 6 \text{ meters}$ ) and should be discarded.

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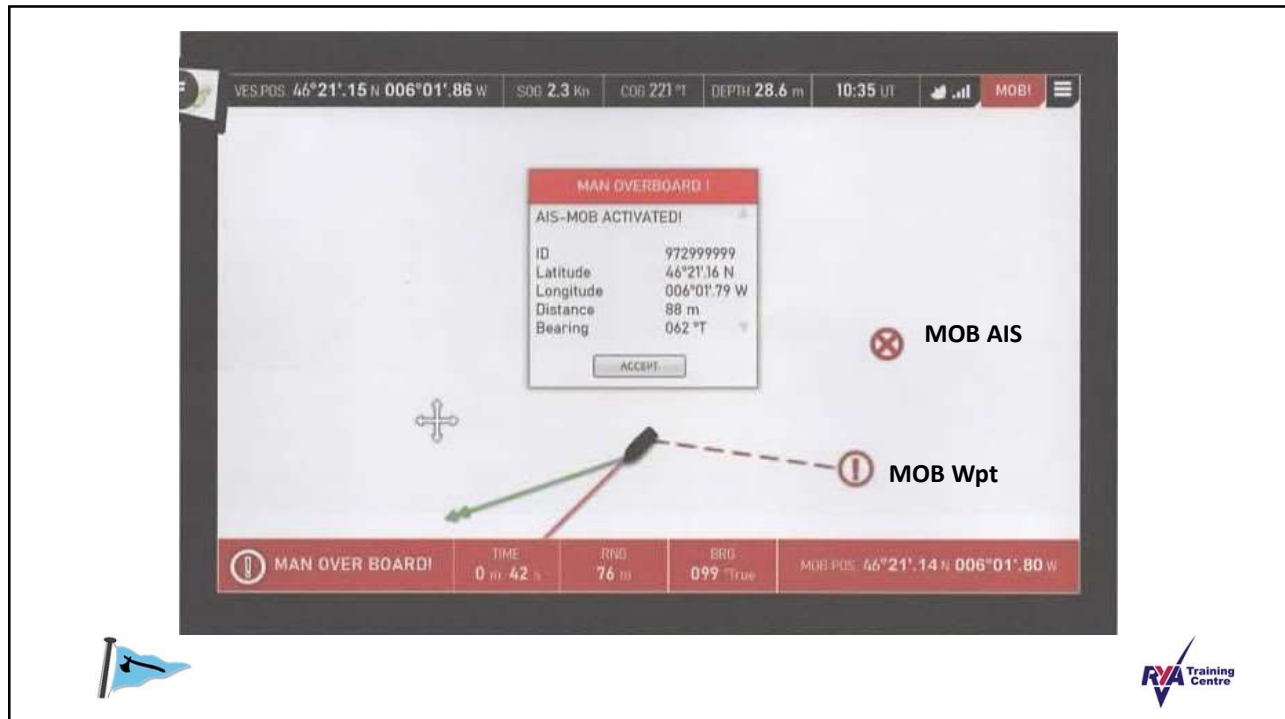
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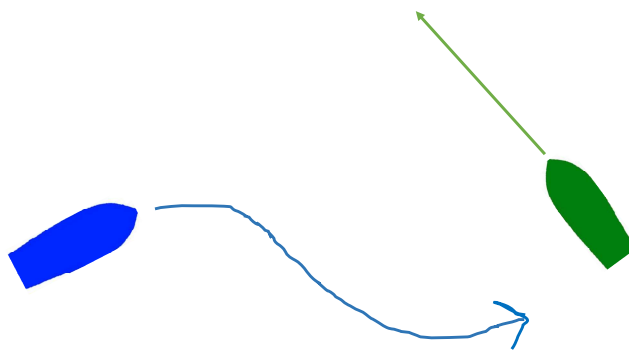


# IRPCS – Chapters 4 and 5



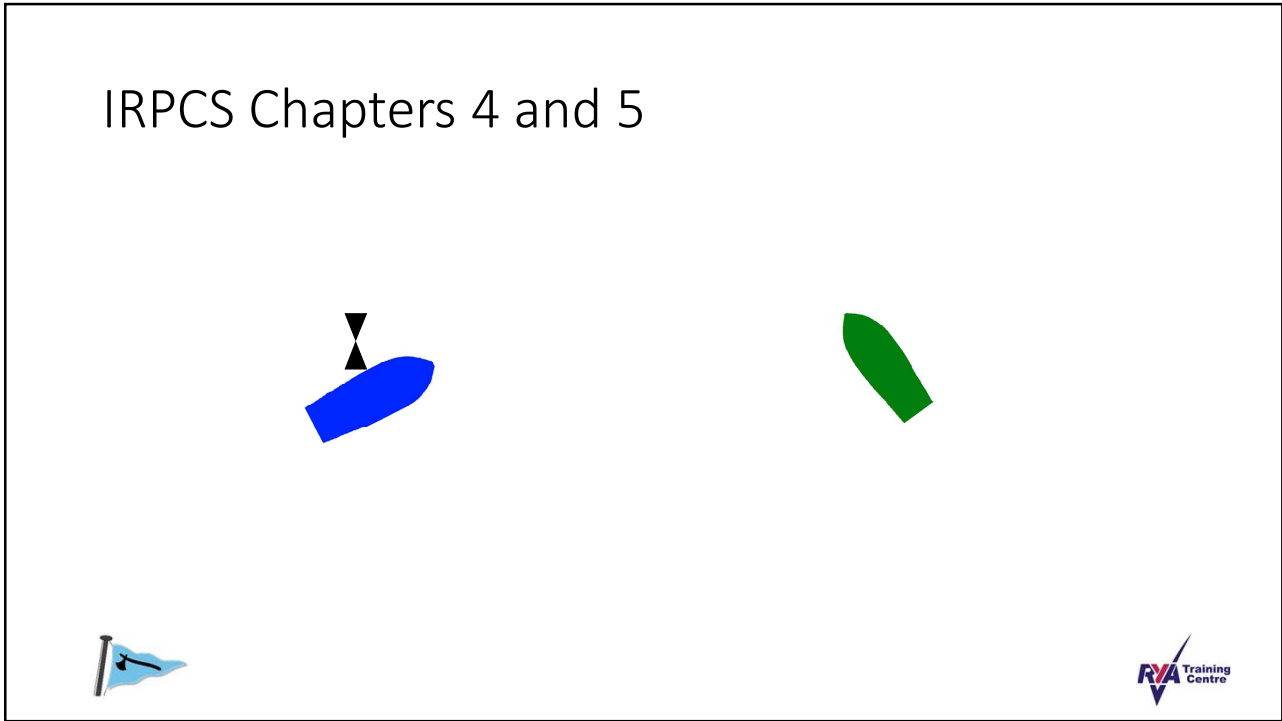
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## IRPCS Chapters 4 and 5



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# IRPCS Chapters 4 and 5

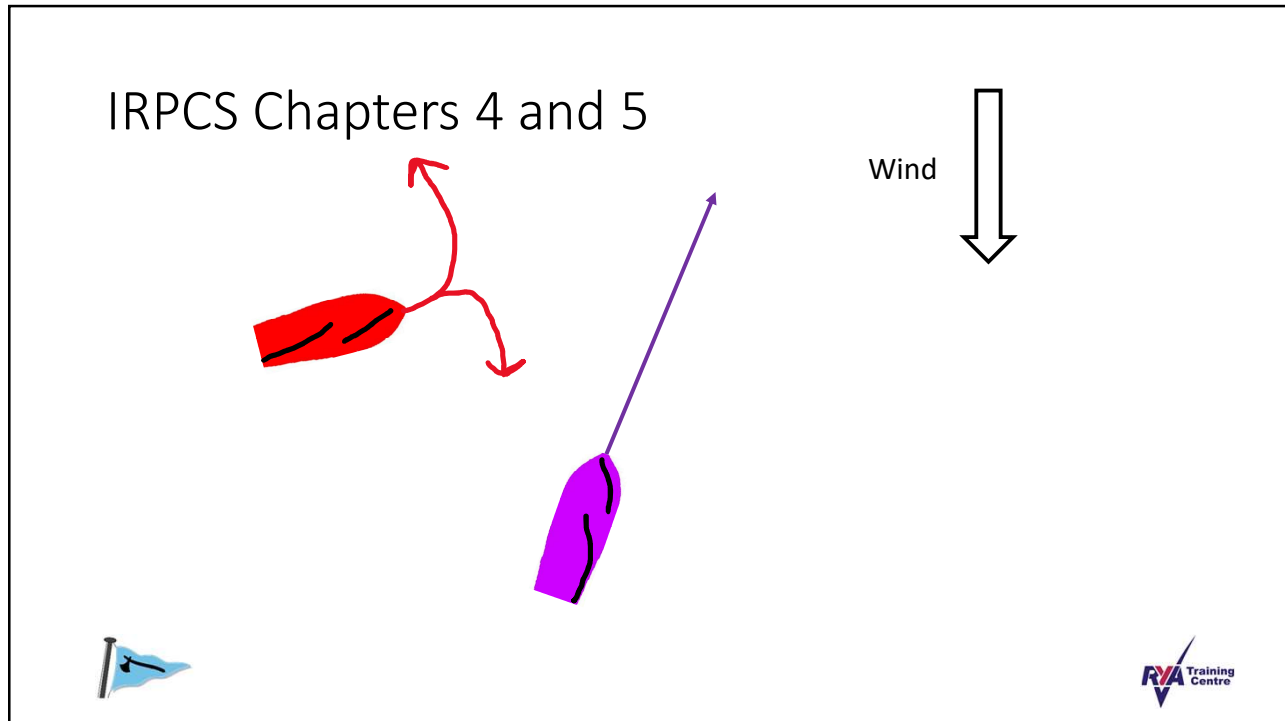


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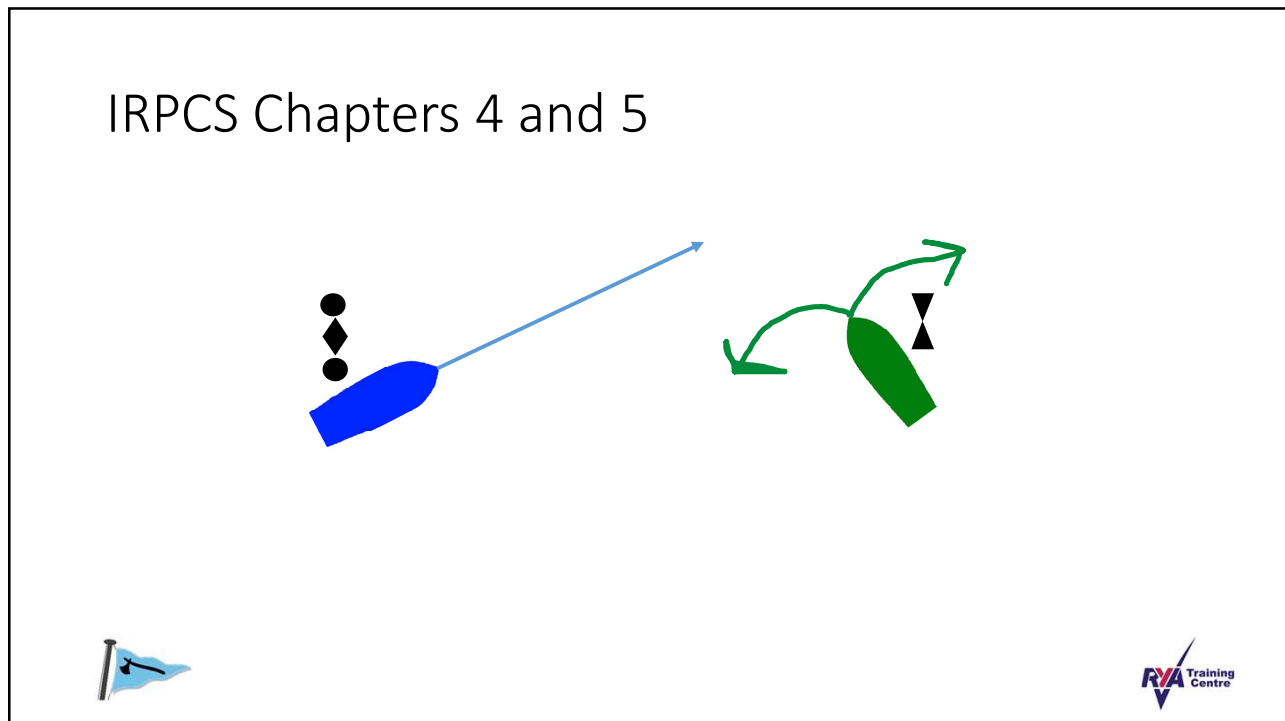
# IRPCS Chapters 4 and 5



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## IRPCS Chapters 4 and 5



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## IRPCS Chapters 4 and 5

- What do the rules say about the conduct of vessels in restricted visibility?

### **Rule 19: Conduct of vessels in restricted visibility**

- (a) This Rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.
- (b) Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate manoeuvre.
- (c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules of Section I of this Part.



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## IRPCS Chapters 4 and 5

- What do the rules say about the conduct of vessels in restricted visibility?

### **Rule 19: Conduct of vessels in restricted visibility (cont'd)**

- (d) 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. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible the following shall be avoided:
- an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;
  - an alteration of course towards a vessel abeam or abaft the beam.



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## IRPCS Chapters 4 and 5

- What do the rules say about the conduct of vessels in restricted visibility?

### **Rule 19: Conduct of vessels in restricted visibility (cont'd)**

- (e) Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.



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## Waypoint Navigation 2

- Note the waypoint in the log and on the chart.
- Plot position regularly - check for agreement with the E.P.
- Calculate the C.T.S. instead of following the bearing given by the GPS, or trying to balance out cross track error. If there is a significant cross tide you:
  - will sail a longer route,
  - could put the boat in danger.

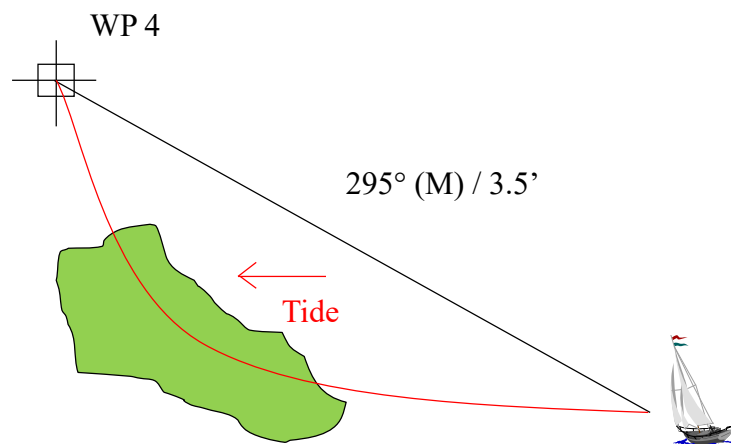


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## Bearing and Distance



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## An outline of the process

1. Use the pilot book / almanac to obtain passage information. (We will cover passage planning later in the course.)
2. Zoom out until you can see both starting and finishing points.
3. Put in waypoints for an initial route on the zoomed out chart.
4. Go back to starting point and zoom in to show detail and adjust position of this if necessary.
5. Follow along the route, checking for hazards, add, delete or move waypoints as necessary. As part of this process check that arrival at the waypoint can be confirmed by non-gps method.



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For those with laptops:

- AYC WiFi code:
- Navionics Chartviewer :  
<https://webapp.navionics.com/#boating@8&key=aactHlzpR>



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Scenario:

- Vessel – Displacement Motor Cruiser. (LOA 10m, Beam 3.5m, Draught 1.6m, Cruising Speed 8 knots)
- Departure Port – Lyme Regis
- Intended Destination – Poole Harbour
- Weather Forecast – NW 2 to 3, Fair, Good.



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## Scenario:

- Research indicates the following passage considerations:
  - Portland Bill and Race
  - Shambles Bank
  - Lulworth Ranges – Danger Area
  - St Albans Head and Race
  - Commercial Traffic from Weymouth, Portland and Poole Harbours.

