



# RYA Logbook Theory Notes

## Sailing with Spinnakers

### Using These Theory Notes

These notes are not intended to totally cover the theory in each stage but instead to provide a guide for students of the RYA Youth Sailing Scheme to supplement their learning from courses and activities.



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## Sailing with Spinnakers – Practical Skills Explanation

Once you've reached this level there's a limit to what our theory notes can impart. We've focused on explaining what will be covered, rather than providing fine detail on each. Instead, your instructor will cover the various concepts outlined here on the course in much more detail.

### Spinnakers

There are two types of spinnaker, the symmetric spinnaker and asymmetric spinnaker. Symmetric spinnakers tend to be found on older styles of boats, while Asymmetric Spinnakers are found on more modern dinghies.

**Symmetric Dinghy – 420**



**Asymmetric Dinghy – RS Quest**



## Sailing Techniques & Manoeuvres

### Spinnaker Hoist

When the helm has gone downwind, quickly pull on the spinnaker halyard until the spinnaker is completely up. pull the spinnaker sheet on the leeward side until the shoulder (part of the luff that rounds off) of the spinnaker stops flapping.

### Spinnaker Gybe

When gybing, pull the spinnaker sheet on the windward side as quickly as possible to bring the spinnaker around the forestay.

### Spinnaker Drop

Head downwind again so that the boat would be on a run. Pull the retrieval line until the slack is taken up. Then un-cleat the halyard and pull the retrieval line in.

### Sailing the Best Course Downwind

This will need to be coached on the water, but you should know what apparent wind is to make the best progress. Apparent wind is explained a bit later in this document.

### Capsize Recovery

You'll need to be able to do the following:

1. Perform capsize recovery with spinnaker.
2. Knows how to recover from total inversion.

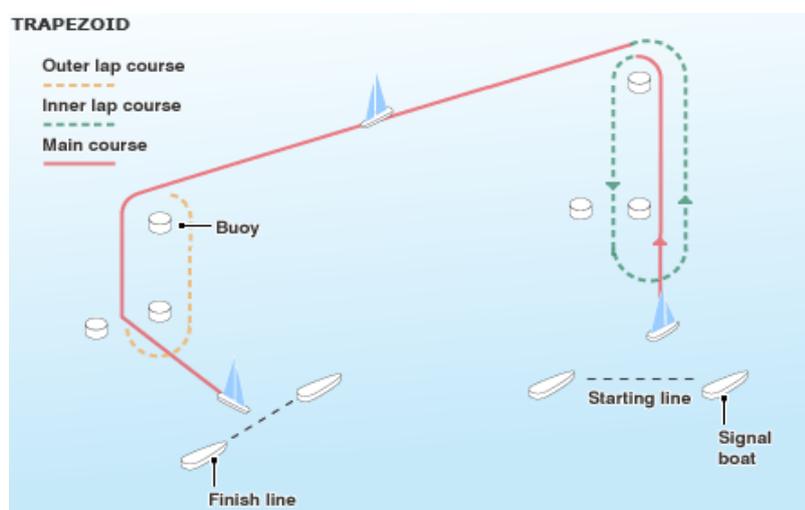


*RS 400 heading for a capsize – The RS 400 is an asymmetric dinghy.*

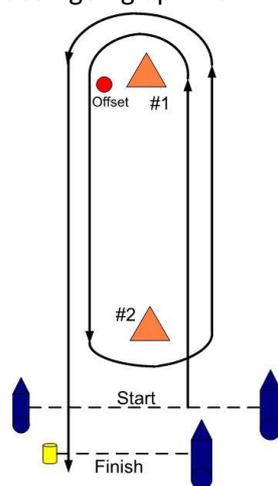
## Racing

### Has knowledge of courses for different types of boat

- Not all types of boats suit the same type of racecourse. Race committees will always try to give a fleet the best type of course for their boat.
- More modern double handed dinghies are generally aimed at planing downwind very fast at hot angles while older dinghies may be faster and point upwind better but slower on the downwind.
- Single handers' performance is often better upwind than double handed dinghies, but downwind aren't as fast with no spinnakers but newer designs like the RS Aero are changing that.
- Courses for asymmetrical dinghies such as RS Fevas, 200's and 400's will avoid long dead downwind legs and with some sort of spreader mark at the windward mark and maybe a gybe mark and a fast broad reach section or finish.



- Courses for symmetrical Dinghies and single handers may include more dead downwind legs such as windward leeward courses but can also have spreader marks to the fleet going downwind mixing with the fleet still going upwind.



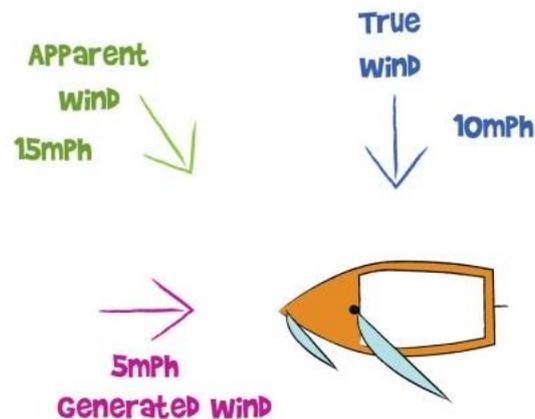
W - Even # of legs

- For mixed fleets a committee can mix up the style of course to keep it fair for all the boats such as triangle, sausage, triangle courses or same start line but different marks to round.

## Sailing Theory & Background

### Apparent Wind

The wind we feel when we are standing still is the true wind, but as the boat starts to move faster, the wind feels like it is moving towards us. The new wind direction is called the apparent wind.



- This is how we can go faster than the wind when sailing and why sailing dead downwind is slower.
- Based on this the best course downwind is not to sail dead downwind, but by going from broad reach to broad reach and gybing in between.

### Effect of Hull Shape on Performance

This is discussed in more detail in our notes from the performance sailing syllabus.

### Sourcing Information and Applying Rig Set Up in different conditions

This theory will be covered using class tuning guides on the course. The different wind strengths will determine the mast rake and other tuning required for each boat.