



A Beginners Guide to the Basic Racing Rules for Radio Control Yachts

(2013 – 2016)



A Beginners Guide to the Racing Rules for Radio Control Yachts

The rules of Radio Controlled Yacht Racing may seem to be quite complicated to a beginner.

The following is by no means comprehensive, and applies only to behaviour on the water, so that beginners can start with a degree of knowledge of the rules, and are less likely to cause incidents on the water.

If these comments conflict in any way with the official Racing Rules of Sailing, or the decision of a protest committee, then the latter must take precedence over these comments.

In order to make it easier to understand the rules and principals of Radio Controlled Yacht Racing, we have prepared the following, which if read in conjunction with the Racing Rules of sailing, may help beginners to behave correctly on the water.

Incidents in Radio Control Yacht racing can happen so fast in some conditions, such that it if there is a lapse of concentration, contacts happen or a rule is broken which was not the intention. We ask therefore that more experienced members are tolerant, but behave honestly and fairly to others if they make a mistake.

We would ask that every member reads and takes note of the **RYA Racing Charter**, the objectives of which are:

- To provide the framework for everyone to enjoy the sport of sailboat racing in whatever capacity and to whatever level the individual desires.
- To ensure that the sport of sailboat racing welcomes all people and treats them equally
- To ensure that those who experience sailboat racing are encouraged to continue.

An important the paragraph on Page 6 of the Racing Rules of Sailing states:

SPORTSMANSHIP AND THE RULES

A body of rules governs competitors in the sport of sailing that they are expected to follow and enforce. A fundamental principle of sportsmanship is that when competitors break a *rule* they will promptly take a penalty, which may be to retire.

Some Basic Definitions:

Clear Astern and Clear Ahead; Overlap:

One boat is *clear astern* of another when her hull is behind a line abeam from the aftermost point of the other boat's hull. The other boat is *clear ahead*. They *overlap* when neither is *clear astern*. However, they also *overlap* when a boat between them *overlaps* both. These terms always apply to boats on the same tack. They do not apply to boats on opposite tacks unless Rule 18 applies or both boats are sailing more than ninety degrees from the true wind.

Fetching:

A boat is *fetching* a mark when she is in a position to pass to windward of it and leave it on the required side without changing *tack*

Finish:

A boat *finishes* when any part of her hull crosses the finishing line from the course side. However, she has not *finished* if after crossing the line she

- a) Takes a penalty under Rule 44.2
- b) Corrects an error under Rule 28.2 made at the line, or
- c) Continues to sail the course

Keep Clear:

A boat *keeps clear* of a right-of-way boat

- a) If the right-of-way boat can sail her course with no need to take avoiding action and,
- b) When the boats are *overlapped*, if the right-of-way boat can also change course in both directions without immediately making contact (wiggle room)

Leeward and Windward:

A boat's *leeward side* is the side that is or, when she is head to wind, was away from the wind. However, when sailing by the lee or directly downwind, her *leeward side* is the side on which her mainsail lies. The other side is her *windward side*. When two boats on the same tack *overlap*, the one on the *leeward side* of the other is the *leeward boat*. The other is the *windward boat*.

Mark:

An object the sailing instructions require a boat to leave on a specified side. An anchor line or an object attached accidentally to a *mark* is not part of it.

Mark-room:

Room for a boat to leave a *mark* on the required side. Also,

- a) Room to sail to the *mark* when on her *proper course* is to sail close to it, and
- b) Room to round the *mark* as necessary to sail the course.

However, *mark-room* for a boat does not include *room* to tack unless she is *overlapped* inside and to *windward* of the boat required to give *mark-room* and she would be *fetching* the *mark* after her tack.

Obstruction:

An object that a boat could not pass without changing course substantially, if she were sailing directly towards it and one of her hull lengths from it. An object that can be safely passed on only one side and an area so designated by the sailing instructions are also *obstructions*. However, a boat *racing* is not an *obstruction* to other boats unless they are required to *keep clear* of her or, if Rule 23 applies, avoid her. A boat under way, including a boat racing, is never a continuing *obstruction*.

Proper Course:

A course a boat would sail to *finish* as soon as possible in the absence of other boats referred to in the rule using the term. A boat has no *proper course* before her starting signal.

Racing:

A boat is *racing* from her preparatory signal until she *finishes* and clears the finishing line and *marks* or retires, or until the race committee signals a general recall, *postponement* or *abandonment*.

Start:

A boat starts when, having been entirely on the pre-start side of the starting line at or after her starting signal, any part of her hull crosses the starting line in the direction of the first *mark*.

Tack, Starboard or Port:

A boat is on the *tack*, *starboard* or *port*, corresponding to her *windward* side.

Zone:

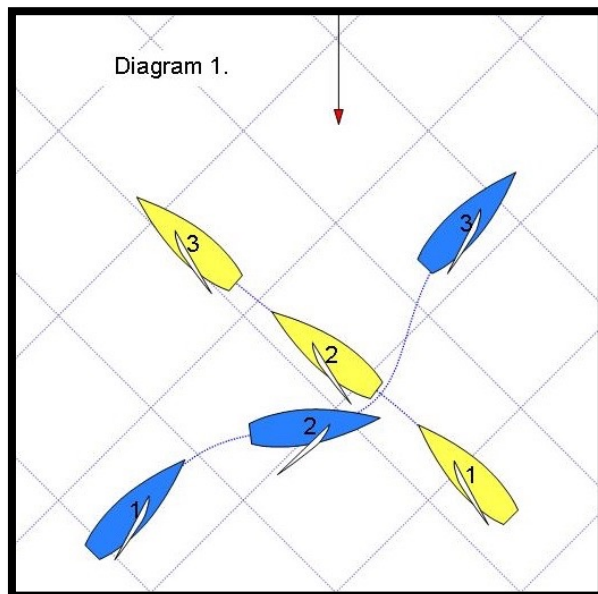
The area around a *mark* within in distance of four hull lengths of the boat nearer to it. A boat is in the *zone* when any part of her hull is in the zone.

Section A - Right of Way

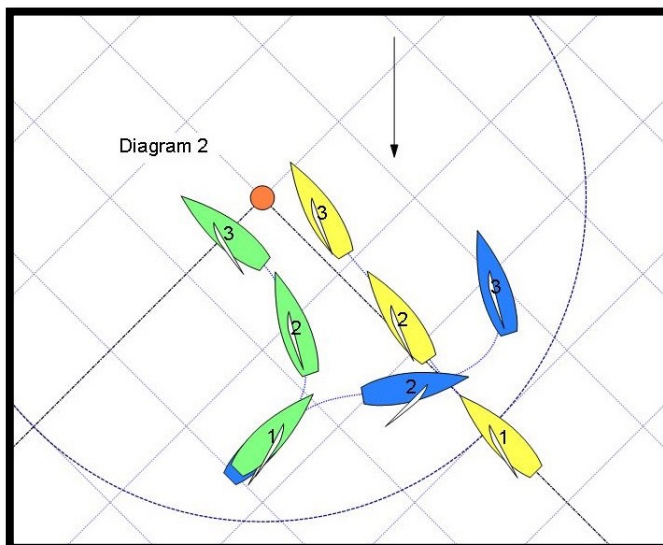
Rule 10 – On Opposite Tacks

When boats are on opposite *tacks*, a *port-tack* boat shall *keep clear* of a *starboard-tack* boat.

The port tack boat has to keep clear of a starboard tack boat (Diagram 1). It is easy to see when this rule applies if the boats are tacking into the wind, and the strategy at the start line is often to keep to the right of the course so that the first windward mark is approached on starboard tack.

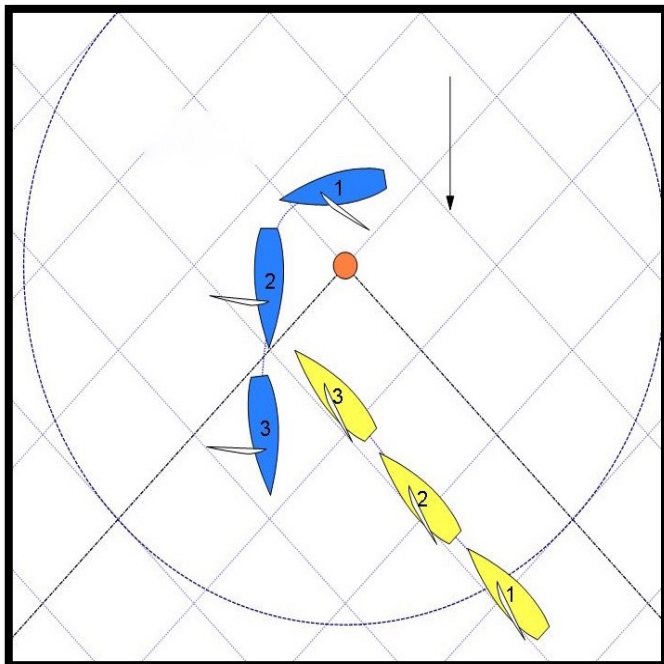
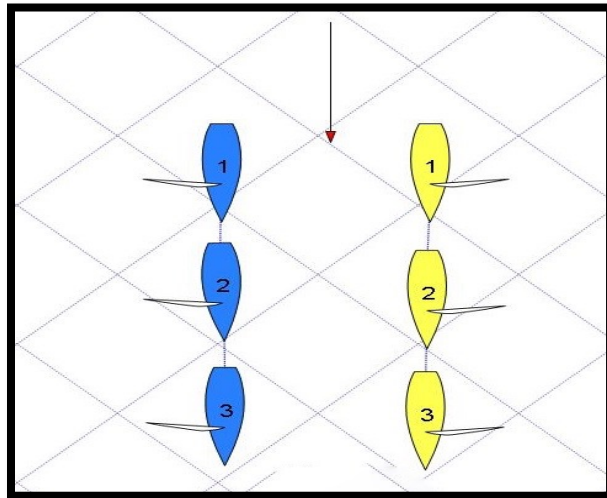


If two boats are beating to a windward mark (Diagram 2), yellow on starboard tack and blue/green on port tack, both wanting to leave the mark to port,



blue/green must give way to yellow - there is no obligation on yellow to give blue/green room to round the mark. Blue/green must therefore decide early to either pass under the stern of yellow, or if it is left too late for that, to tack quickly on the wrong side of the mark, to her disadvantage. On no account must blue barge in at the mark! Rule 10 is the basic, most important of all rules and so competitors must always know what tack their boats are on.

The application of this rule is often forgotten when two boats are running (Diagram 3). In this case yellow has right-of-way and blue must keep clear. This also applies if yellow was clear astern of blue, she would still have right-of-way and blue would need to keep clear.



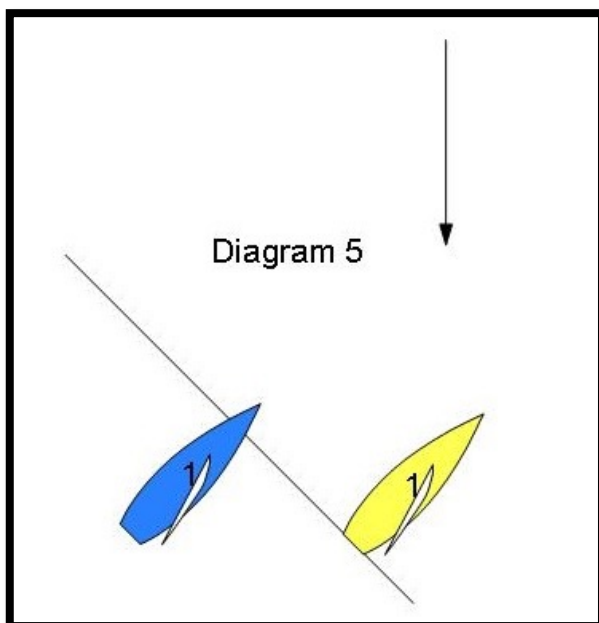
Another situation is when a boat that is clear ahead and has rounded the mark and started its run away from the mark on port, only to find another boat approaching the mark on starboard (Diagram 4).

Blue being on port is required to keep clear of yellow the right-of-way boat and therefore has to make a course change which she may not have really wanted to do.

Blue should look out for any approaching boats on starboard, and, if necessary take the mark a little wider to avoid them.

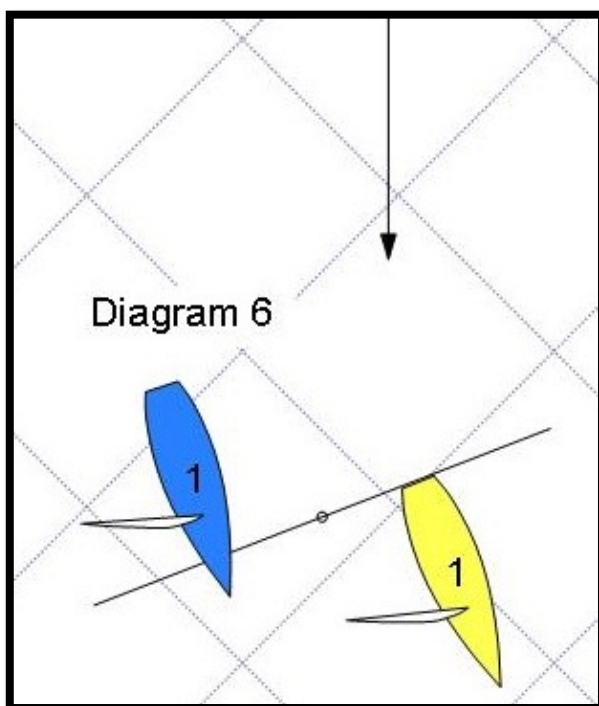
Rule 11 – On The Same Tack, Overlapped

When boats are on the same *tack* and *overlapped*, a *windward* boat shall *keep clear* of a *leeward* boat.



For yellow to be *overlapped* (Diagram 5) another boat, blue must have part of that boat ahead of a perpendicular line from the stern of yellow and at right angles to its centre line.

Quite often competitors may communicate with others reminding that they are *overlapped* and that the *windward* boat should *keep clear*.



This rule also applies to boats that are running (Diagram 6)

The *windward* boat, yellow should *keep clear* of blue as both boats are on port *tack* and *overlapped*.

There may be, however an obligation on blue to *keep clear* also, under Rule 17 – on the same *tack*, keeping to her *proper course*.

Rule 12 – On The Same Tack, Not Overlapped

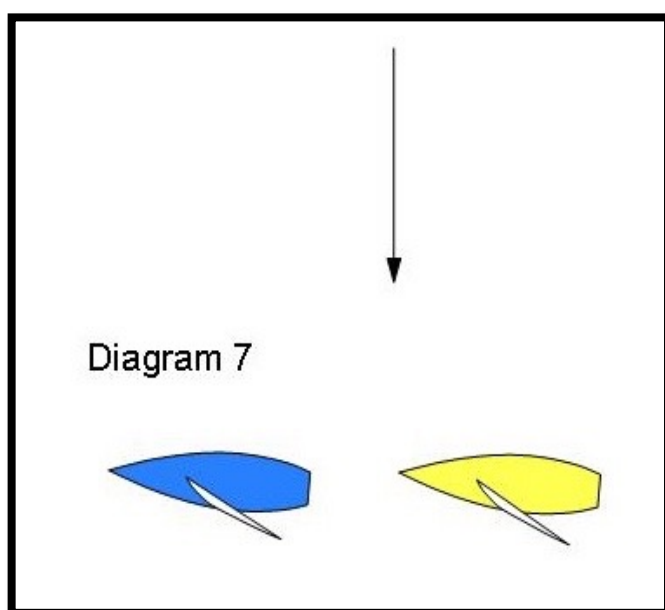
When boats are on the same *tack* and not *overlapped*, a boat *clear astern* shall *keep clear* of a boat *clear ahead*.

This is an obvious rule, but in practice it can be quite difficult when running, and a gust of wind brings up the back markers faster than those in front. It is necessary to try to think ahead and find a way round slower boats if there is a risk of contact.

It is often better to go the long way around rather than risk contact in this case, especially when there are lots of boats at a distant *mark*, and it is not easy to see exactly where your boat is.

Rule 13 – While Tacking

After a boat passes head to wind, she shall *keep clear* of other boats until she is on a close-hauled course. During that time Rules 10, 11 and 12 do not apply. If two boats are subject to this rule at the same time, the one on the other's port side or the one astern shall *keep clear*.



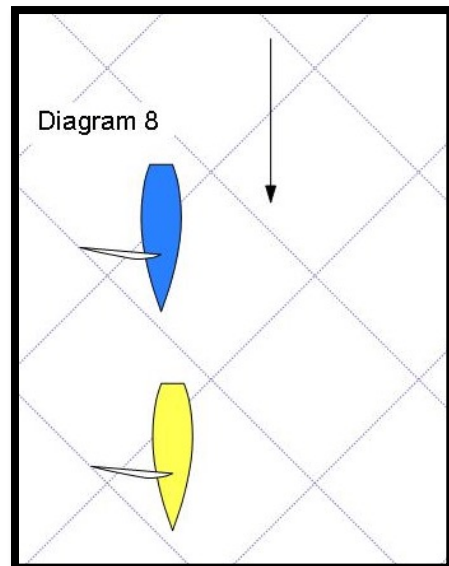
If a boat *tacks*, she has to *keep clear* of other boats until she is on a close-hauled course.

If Blue wishes to *tack* (Diagram 7) she cannot do so until yellow tacks, or otherwise ceases to present a hazard, because she would not be *keeping clear* of yellow if she did so.

This rule is quite useful to yellow, which can in this way, force blue past a *mark*, or to a position, which she does not want to go to.

If blue does *tack* in yellow's water she has broken the rule and must take a penalty whether or not there is contact. The yellow boat still has to avoid blue if at all possible however, and just because blue has infringed the rules, that is not an excuse for yellow to misbehave.

This rule says nothing about gybing in another boat's water, possibly because its speed is not going to alter very much, and the likelihood of contact is low, therefore yellow could gybe and blue has to keep clear, as being *clear astern* (Diagram 8). It must be stressed that competitors must know at all times where the wind is, and what *tack* they are on to know which rules apply at any time.



Section B - General Limitations

Rule 14 Avoiding Contact

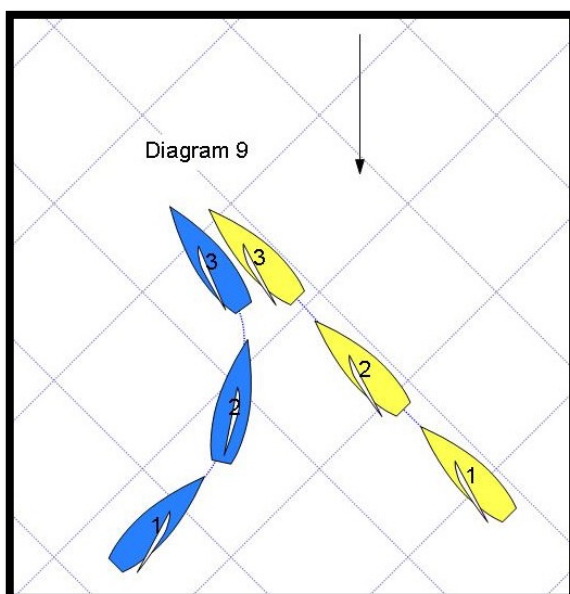
A boat shall avoid contact with another boat if reasonably possible. However, a right-of-way boat or one entitled to *room* or *mark-room*

- a) Need not act to avoid contact until it is clear that the other boat is not *keeping clear* or giving *room* or *mark-room*, and
- b) Shall be exonerated if she breaks this rule and the contact does not cause damage or injury.

This is a general rule, which means that everyone has to behave reasonably and try to avoid contact.

Rule 15 ACQUIRING RIGHT OF WAY

When a boat acquires right-of-way, she shall initially give the other boat *room to keep clear*, unless she acquires right-of-way because of the other boat's actions. This rule has associations with the previous two rules and continues the theme of *keeping clear* at course changes.



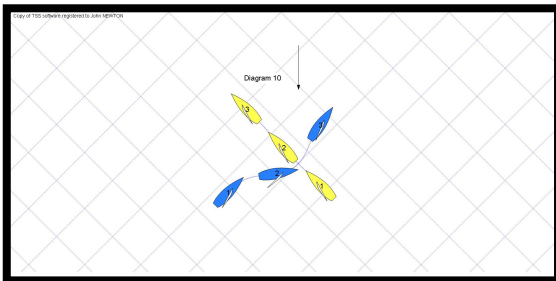
Suppose that two boats (Diagram 9) are beating towards each other, blue on port *tack*, yellow on starboard *tack*, when blue *tacks* to avoid yellow, yellow becomes the *windward* boat and has to *keep clear*. This rule states that blue should not tack so late as to give yellow problems in *keeping clear*. Just another common sense rule so that contact is avoided.

Rule 16 CHANGING COURSE

16.1 When a right-of-way boat changes course, she shall give the other boat room to keep clear.

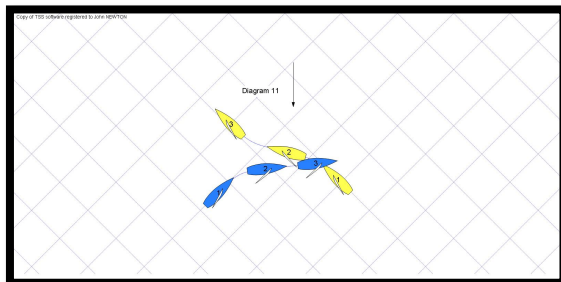
16.2 In addition, when after the starting signal a *port-tack* boat is *keeping clear* by sailing to pass astern of a *starboard-tack* boat, the *starboard-tack* boat shall not change course if as a result the *port-tack* boat would immediately need to change course to continue *keeping clear*.

This rule means that the right-of-way boat cannot be too aggressive and has to act in a reasonable manner. Additionally the rule contains an interesting requirement that when boats are crossing on opposite *tacks*, the *starboard-tack* boat shall not change course, if as a result, the *port-tack* boat would immediately need to change course to continue *keeping clear*.



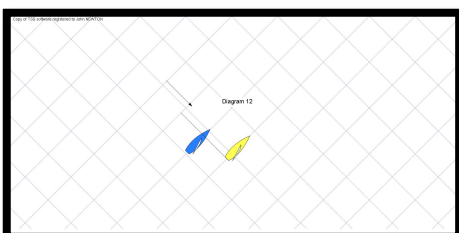
In diagram 10, if the blue give way boat decides to pass astern of the yellow boat and give way, this is correct.

However, if the Blue give way boat starts to give way by trying to sail astern of the starboard yellow boat, but then yellow bears away towards blue so that blue does not have room to avoid contact, yellow is in the wrong and blue should protest her.



Rule 17 ON THE SAME TACK; PROPER COURSE

If a boat *clear astern* becomes *overlapped* within two of her hull lengths to *leeward* of a boat on the same tack, she shall not sail above her *proper course* while they remain on the same tack and *overlapped* within that distance, unless in doing so she promptly sails astern of the other boat. This rule does not apply if the *overlap* begins while the *windward* boat is required by rule 13 to keep clear.



In this diagram yellow the leeward boat shall not sail above her *proper course* to threaten blue although she can sail across blue's stern. Similarly, blue to windward shall not sail below her proper course and threaten yellow.

Section C - At Marks and Obstructions

Section C rules do not apply at a starting **mark** surrounded by navigable water or at its anchor line from the time boats are approaching them to **start** until they have passed them.

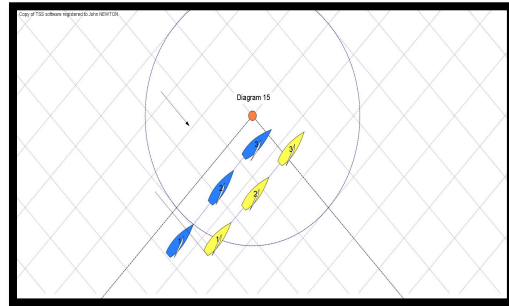
Rule 18 Mark Room

18.1 When Rule 18 Applies

Rule 18 applies between boats when they are required to leave a *mark* on the same side and at least one of them is in the *zone* (Four boat lengths).

However, it does not apply

- a) Between boats on opposite *tacks* on a beat to windward,
- b) Between boats on opposite *tacks* when the *proper course* at the *mark* for one but not both of them is to *tack*,
- c) Between a boat approaching a *mark* and one leaving it, or
- d) If the *mark* is a continuing *obstruction*, in which case Rule 19 applies.



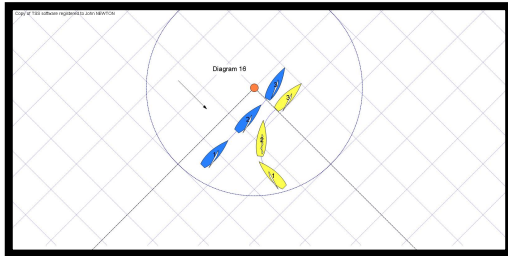
The diagram shows the position which blue must obtain to have a right to *mark-room* and for yellow to leave *room* for her.

18.2 Giving Mark-Room

- a) When boats are *overlapped* the outside boat shall give the inside boat *mark-room*, unless Rule 18.2(b) applies.
- b) If boats are *overlapped* when the first of them reaches the *zone*, the outside boat at that moment shall thereafter give the inside boat *mark-room*. If a boat is *clear ahead* when she reaches the *zone*. The boat *clear astern* at that moment shall thereafter give her *mark-room*.
- c) When a boat is required to give *mark-room* by Rule 18.2(b),
 - I. She shall continue to do so even if later an *overlap* is broken or a new *overlap* begins;
 - II. If she becomes *overlapped* inside the boat entitled to *mark-room*, she shall also give that boat *room* to sail her *proper course* while they remain *overlapped*.

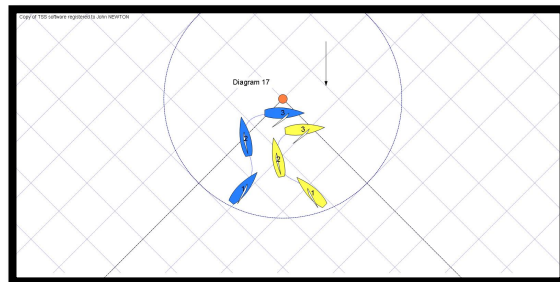
However, if the boat entitled to *mark-room* passes head to wind or leaves the *zone*, Rule 18.2(b) ceases to apply.

- d) If there is reasonable doubt that a boat obtained or broke an *overlap* in time, it shall be presumed that she did not.
- e) If a boat obtained an inside *overlap* from *clear astern* or by tacking to *windward* of the other boat and, from the time the *overlap* began, the outside boat has been unable to give *mark-room*, she is not required to give it.



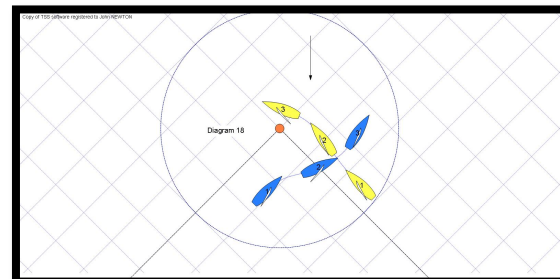
If yellow tacks, when approaching the *mark* and is close hauled and fetching the mark, all within the *zone*, then yellow shall not force blue above her close hauled course or prevent her from passing the mark, and shall give *mark-room* to blue to pass the mark if blue is *overlapped* inside her.

In the same situation, the yellow boat can put the blue boat about when the *port starboard* rule applies, but within the *zone* she must give blue water, shall not sail above her course or prevent her from passing the *mark*.

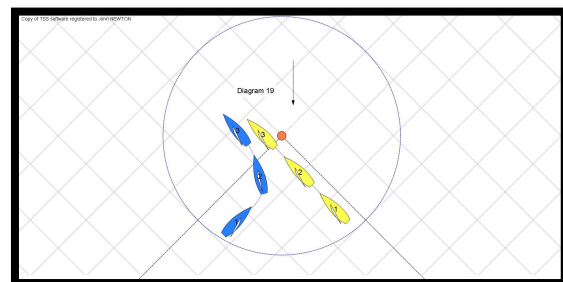


In some other situations when rounding marks

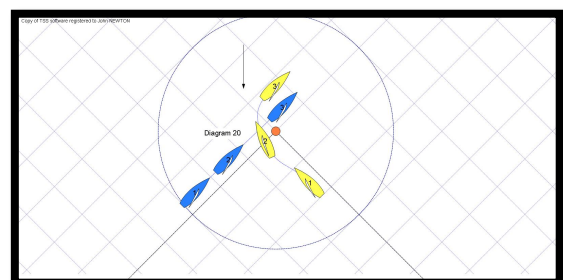
Blue the *port* boat gives way to the *starboard* boat by going astern of her.



Where the blue *port* boat chooses to tack ;



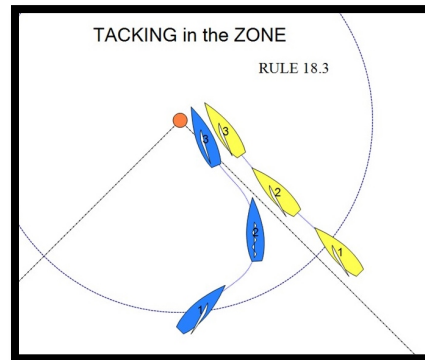
Where the blue *port* boat allows the *starboard* boat to *tack* round first, and then she has to give water to yellow.



18.3 Tacking in the Zone

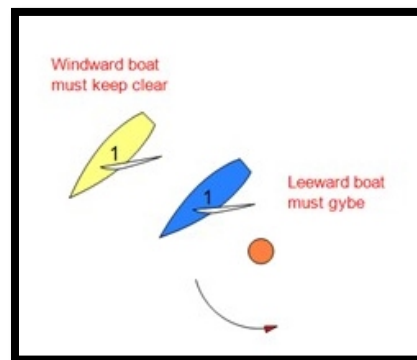
If a boat in the *zone* passes head to wind and is then on the same *tack* as a boat that is *fetching* the *mark*, rule 18.2 does not thereafter apply between them. The boat that changed *tack*

- a) Shall not cause the other boat to sail above close-hauled to avoid contact or prevent the other boat from passing the *mark* on the required side, and
- b) Shall give *mark-room* if the other boat becomes *overlapped* inside her.

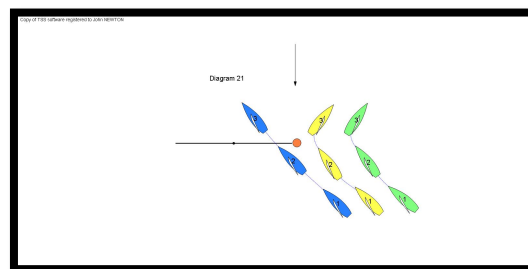


18.4 Gybing

When an inside *overlapped* right-of-way boat must gybe at a *mark* to sail her *proper course*, until she gybes she shall sail no farther from the *mark* than needed to sail that course. Rule 18.4 does not apply at a gate *mark*.



Note: Rule 18 does not apply at the start line, where there is no way a boat can claim room at a start line mark. The diagram shows several boats approaching the start line. If the blue starboard boat is tacking up to the right hand mark, yellow and green have no rights to room at the mark and can be sailed the wrong side of the mark.



At other marks competitors sometimes call for room at the mark if they think they have rights, and the outside boat has to give way if they are right. There is however an obligation on the inside boat to pass close to the mark using the minimum room the outside boat has given. They should not force the outside boat further away from the mark than is necessary.

Rule 19 Room to Pass an Obstruction

19.1 When Rule 19 applies

Rule 19 applies between boats at an *obstruction* except when it is also a *mark* the boats are required to leave on the same side. However, at a continuing *obstruction*, rule 19 always applies and rule 18 does not.

19.2 Giving Room at an Obstruction

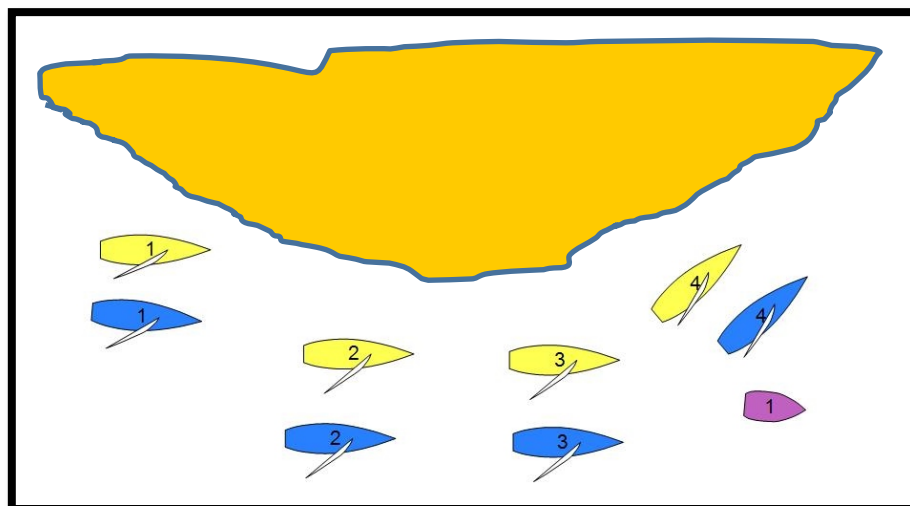
- a) A right-of-way boat may choose to pass an obstruction on either side
- b) When boats are *overlapped*, the outside boat shall give the inside boat *room* between her and the *obstruction*, unless she has been unable to do so from the time the *overlap* began.
- c) While boats are passing a continuing *obstruction*, if a boat was *clear astern* and required to *keep clear* becomes *overlapped between the other* boat and the *obstruction* and, at the moment the *overlap* begins, there is not *room* for her to pass between them, she is not entitled to *room* under rule 19.2(b). While the boats remain *overlapped*, she shall *keep clear* and rules 10 and 11 do not apply.

In the diagram below, in position 1, yellow as the inside give-way boat must keep clear.

In position 2 blue, the right-of-way boat must keep clear

In position 3 blue, the right-of-way boat chooses which side to pass the next *obstruction*

In position 4 yellow, the give-way boat must keep clear.



Rule 20 Room to Tack at an Obstruction

20.1 Hailing

When approaching an *obstruction*, a boat may hail for *room* to tack and avoid a boat on the same *tack*. However, she shall not hail if

- a) She can avoid the *obstruction* safely without making a substantial course change
- b) She is sailing below *close-hauled*, or
- c) The *obstruction* is a *mark* and a boat that is *fetching* it would be required to respond and change course.

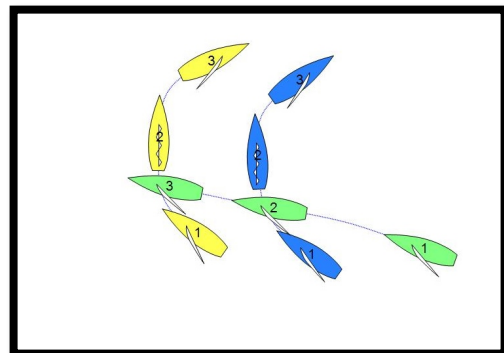
20.2 Responding

- a) After a boat hails, she shall give the hailed boat time to respond.
- b) The hailed boat shall respond even if the hail breaks rule 20.1
- c) The hailed boat shall respond either by tacking as soon as possible, or by immediately replying 'You tack' and then giving the hailing boat *room* to tack and avoid her.
- d) When the hailed the boat responds, the hailing boat shall tack as soon as possible.
- e) From the time a boat hails until she has tacked and avoided the hailed boat, rule 18.2 does not apply between them.

In the diagram, the yellow boat has hailed to tack and blue responds by tacking, thereby avoiding yellow.

The green boat responds by hailing 'You tack' and then giving the hailing boat room to *tack* by bearing away and tacking later.

It should be noted that if yellow tacks and another boat on starboard is approaching and there is room for yellow to tack back, she must keep clear. She can then hail again if necessary.



20.3 Passing On a Hail to an Additional Boat

When a boat has been hailed for room to tack and she intends to respond by tacking, she may hail another boat on the same tack for room to tack and avoid her. She may hail even if her hail does not meet the conditions of rule 20.1. Rule 20.2 applies between her and the boat she hails.