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On the Cover

The IOM starting line photo by Bruce Lopez is the same photo used on the cover of Issue 150 of *Model Yachting* magazine. Per Bruce, "Hello! That photo was taken during the 2005 IOM NCR in San Diego. It is right after the start of an A Fleet race. The #50 boat is a Firebrace design, *Vapour*, and is sailed by George Pedrick. The #187 boat is a KF2 design and is sailed by Doc Hoyos from Barbados. The #49 boat is another Firebrace design, *Ericca*, and is sailed by Engelhard Federico.

Racing Rules Tutorial for Radio-Controlled Model Sailboats

Updated and Revised for the 2009–2012 Revision of The Racing Rules of Sailing



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Introduction

he Racing Rules of Sailing (RRS) are the rules that govern sailboat racing and are universally accepted worldwide. It's not surprising then, that in

1998 the American Model Yachting Association Board of Directors voted to accept them in their entirety to be used for model sailboat racing. The RRS are the responsibility of the International Sailing Federation (ISAF) to maintain and update every four years. They were updated for 2009–2012 and became effective January 1, 2009.

This Racing Rules Tutorial is written specifically for radio-controlled (RC) model sailboat racing. It is based on the 2009–2012 Edition of the RRS, with modifications for RC sailing as made by Appendix E—Radio-Controlled Boat Racing Rules. Throughout the tutorial, when reference is made to the RRS, it includes modifications made by Appendix E, where applicable. Frequently within the text of the tutorial a RRS rule or, part of a rule, will be quoted word for word, when this occurs the text will be in italics. However, having a copy of the RRS to refer to as the tutorial is used will make it more convenient and much easier to understand, as often rules are mentioned only by number without the complete text. Additionally, US SAILNG appeals and ISAF cases are referred to. Most "appeals and cases" are written for full size sailboats, but the decisions contained in them will usually translate directly to RC sailing. The main objective of the 'Racing Rules Tutorial'is to explain and discuss the RRS as they apply to model sailing to help model sailors understand their application. Additionally, there are sections that contain information that will be helpful to race committees, protest committees and clubs that host regattas.

As you learn the RRS and use them while racing, they will become second nature and you won't have to stop to think about which one applies in the situation you find yourself in. However, no matter how well you know the rules, don't lose sight of the Basic Principle of Sailing that is so well stated in the statement titled: *Sportsmanship and the Rules. It says: Competitors in the sport of sailing are governed by a body of rules 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 sailors sail under the premise that when they break a rule, they will not take a penalty unless they are protested. In some cases, when there is a question as to which boat fouled, this may be justified. However, often there is no question which boat has fouled and yet the fouling boat elects not to take a penalty unless protested. This is not the principle that is conveyed by the *Sportsmanship and the Rules* statement. When you know you have fouled, take a penalty, don't wait to be protested.

Remember, sailing is not a contact sport. Let's sail with the rules.

Rules Tutorial 1: Definitions

The first group of terms and their definitions are those found in the Racing Rules of Sailing and are actually part of the Racing Rules of Sailing. Many of them are referenced in the Racing Rules Tutorial and in some cases explained in more detail as they apply to the specific situation being discussed.

The second group is additional terms that are used in the Racing Rules Tutorial. While they are not an official part of the Racing Rules of Sailing, they are terms that are frequently used in sailboat racing. A few are repeated from the first group with more explanation.

Definitions in the Racing Rules of Sailing

Abandon A race that a race committee or protest committee abandons is void but may be resailed.

Clear Astern and Clear Ahead; Overlap One boat is clear astern of another when her hull and equipment in normal position are behind a line abeam from the aftermost point of the other boat's hull and equipment in normal position. 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 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, or crew or equipment in normal position, crosses the finishing line in the direction of the course from the last mark, either for the first time or after taking a penalty under rule 44.2 or, after correcting an error made at the finishing line, under rule 28.1.

Interested Party A person who may gain or lose as a result of a protest committee's decision, or who has a close personal interest in the decision.

Keep Clear One boat keeps clear of another if the other can sail her course with no need to take avoiding action and, when the boats are overlapped on the same tack, if the leeward boat can change course in both directions without immediately making contact with the windward boat.

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, and a race committee boat surrounded by navigable water from which the starting or finishing line extends. An anchor line or an object attached temporarily or accidentally to a mark is not a part of it.

Mark-Room Room for a boat to sail to the mark, and then room to sail her proper course while at the mark. However, mark-room does not include room to tack unless the boat is overlapped to windward and on the inside of the boat required to give mark-room.

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, give her room or mark-room or if rule 22 applies, avoid her. A vessel under way, including a boat racing, is never a continuing obstruction.

Overlap See Clear Astern and Clear Ahead; Overlap

Party A party to a hearing: a protester; a protestee; a boat requesting redress; a boat or a competitor that may be penalized under rule 69.1; a race committee or an organizing authority in a hearing under rule 62.1(a).

Postpone A postponed race is delayed before it's scheduled start but may be started or abandoned later.

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

Protest An allegation made under rule 61.2 by a boat, a protest committee or a protest committee that a boat has broken a rule.

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

Room The space a boat needs in existing conditions while manoeuvring promptly in a seamanlike way.

- Rule (a) The rules in this book, including the Definitions, Race Signals, Introduction, preambles and the rules of relevant appendices, but not titles.
 - (b) ISAF Regulation 19, Eligibility Code; Regulation 20, Advertising Code; Regulation 21, Anti- Doping Code; and Regulation 22, Sailor Classification Code.
 - (c) the prescriptions of the national authority, unless they are changed by the sailing instructions in compliance with the national authority's prescription, if any, to rule 88;
 - (d) the class rules (for a boat racing under a handicap or rating system, the rules of that system are 'class rules');
 - (e) the notice of race;
 - (f) the sailing instructions; and
 - (g) any other documents that govern the event.

Start A boat starts when, having been entirely on the pre-start side of the starting line at or after her starting signal, and having complied with rule 30.1 if it applies, any part of her hull, crew or equipment

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 a distance of three hull lengths of the boat nearer to it. A boat is in the zone when any part of her hull is in the zone. (For model sailing, Rule E1.3(b) Definitions, in Appendix E modifies the definition for Zone as follows: In the definition Zone the distance is changed to four hull lengths.

Windward See Leeward and Windward

Additional Definitions of Terms

American Model Yachting Association Also known as AMYA. The national organizing body for model sailing in the United States. A member of US SAILING.

Apparent Wind The wind direction a boat is sailing in, which is a vectorial sum of the actual wind and the wind created by the forward motion of the boat.

Backwind The wind that is deflected by a boat's sails. The backwind area is normally aft and to windward.

Barging The act of pushing between an overlapped leeward boat, on the same tack, and a starting mark.

Bear Off Changing course away from the wind direction. Also called: laying off, bearing away and bearing off.

Beating Sailing a close-hauled course.

Blanket Zone The cone-shaped area of obstructed airflow that extends to leeward and slightly aft of a boat.

Clear Air An airflow that is unobstructed and undeviated by other boats. Also called: clean air.

Close-hauled A boat is "close-hauled" when she is sailing upwind and as close to the wind as possible (at a small sailing angle to the wind, possibly as little as 35 degrees). Also called: on a beat, beating or beating to windward.

Covering The act of maintaining position over another boat by sailing between that boat and the next mark or finish line. Often this will require tacking, each time the other boat does, in order to maintain that position.

Favored End The most upwind end of the starting line which is also normally closer to the first mark.

Finish A boat finishes when any part of her hull or equipment crosses the finish line in the direction of the course from the last mark. A boat does not need to sail completely across the line to finish.

Four Boat Length Zone The area inside of an imaginary circle drawn around the mark, with a radius equal to four boat lengths of the boat closest to it.

Gybe/Gybing Changing to the other tack by turning the bow away from the wind.

Gybing Mark A course mark of a triangular course that is usually between the two reaching legs. Normally, gybing from one tack to the other is part of rounding this mark.

Head to Wind The point at which the bow of the boat is directly into the wind.

Header A wind shift that causes a close-hauled boat to sail a course that is at a greater angle to the previous wind (a course that is more in a direction away from the next mark).

Heading Up The act of turning a boat more into the wind, such as from a reach to a beat.

In Irons The result of heading into the wind, losing all forward motion and becoming dead in the water. This also can occur when tacking in strong winds. Frequently, when in irons, it is difficult to get the boat to fall off in either direction and achieve forward motion.

International Sailing Federation Also known as ISAF. The international authority for the sport of sailing.

Lay Line An imaginary line, from the windward mark, along which a close-hauled boat can sail and pass the mark on the required side.

Lee-bowing Being on the same tack as the other boat, and sailing on her leeward side and slightly ahead. Usually this results in the other boat sailing in a deflected wind and not pointing as high.

Lee Helm The tendency of a boat head away from the wind when the rudder is in a neutral position.

Leeward Boat The boat that is downwind from the other boat.

Leeward End of the Starting Line The port end of the starting line as you look up the course from behind the line.

Leeward Mark The most downwind mark of the course.

Leeway The deviation to leeward from a straight ahead course that results in a crabbing forward course, like an airplane flying in a cross wind. Normally, it is more apparent when sailing upwind.

Lift A wind shift that allows a close-hauled boat to sail a course that is at a smaller angle to the previous wind (a course more in a direction toward the next mark).

Luff/Luffing Changing course towards the wind. Very commonly applied to the action of a leeward boat changing course toward the wind and toward a windward boat.

Luff, Hard or Sharp A term used to describe the action of a boat that makes an abrupt and substantial course change to windward. A hard luff in itself is not prohibited by the rules, however, when executed by a leeward boat, while overlapped with and close to a windward boat, very often, under RRS 16.1, results in a foul by the leeward boat.

May Having the option of doing it.

One Beat Leg An upwind leg that can be sailed, in total, without tacking.

Overlap, Inside Being overlapped with another boat while between that boat and a mark or obstruction.

Overlap, Outside Being overlapped with another boat with that boat between you and a mark or obstruction.

Overstanding Sailing beyond the objective, usually with the implication of a loss of time. Most often used when sailing beyond the lay line to the windward mark.

Pinching Sailing above close-hauled (beating) to the point where boat speed begins to drop and the sails can start to luff.

Pointing The term often applied to a boats ability to sail into the wind.

Reaching Sailing a course with the wind somewhat perpendicular to the hull's centerline. Often boats attain their greatest speed while reaching.

Rhumb Line A straight line drawn from a mark of the course to the next mark.

Rounding to Port Rounding or passing a mark with it on the port side of the boat.

Rounding to Starboard Rounding or passing a mark with it on the starboard side of the boat.

Running Sailing a course in which the wind is coming from behind the boat, (at a large sailing angle, up to 180 degrees).

Sailing Angle The angle of a boat's course relative to the wind.

Sailing by the Lee Sailing downwind with the main boom on the same side of the boat as the wind is coming over.

Shall Mandatory: you must do it.

Starboard Tack and Port Tack A boat is on starboard tack when her windward side is her starboard side. Conversely, a boat is on port tack when her windward side is her port side. Normally, this is the side opposite the one the main boom is on. When racing, you are always on either a starboard tack or a port tack, even while in the act of tacking or gybing.

Strategy A plan for sailing the race, which is made before the race. This could involve planning how you are going to start, what side of the course you want to be on halfway up the first leg, on which tack to approach the first mark, and any other part of the race that needs a plan. Often spontaneous changes, which are called tactics, need to be made in the presence of other boats to implement your plan.

Tactics The spontaneous changes that are required to implement strategy. This involves your ability to see what is going on around you (wind, current, boats, etc.), and process that information spontaneously (within the context of the rules) to make changes or corrections to your course, at the right time and the right place relative to other boats and the wind, so as to effectively implement your race strategy.

Tack/Tacking Changing to the other tack by turning the bow toward the wind.

US SAILING The national authority for the sport of sailing in the United States.

Weather End of the Starting Line The starboard end of the starting line as you look up the course from behind the line.

Weather Helm The tendency of a boat to head up when the rudder is in a neutral position. Normally, this occurs in stronger winds, especially in puffs.

Weather Mark/Windward Mark The most upwind mark of the course.

Windward Boat The boat that is upwind from the other boat.

Rules Tutorial 2: Part 2—When Boats Meet; Section A—Right of Way

In Rules Tutorial 2 we are discussing Section A—Right of Way Rules, which are frequently referred to as the primary rules. Section A is found in Part 2 of the Racing Rules of Sailing (RRS). There are four primary rules: RRS 10—On Opposite Tacks, RRS 11—On the Same Tack, Overlapped, RRS 12—On the Same Tack, Not Overlapped and RRS 13—While Tacking. These four rules cover the only three basic relationships that can exist between boats: opposite tacks, the same tack, and changing tacks. In addition these primary rules are the basis from which right of way is established while racing, although rules in Sections B, C and D of Part 2 may modify Section A rules.

As in any sport that is governed by rules, occasionally rules are broken. There is a penalty for breaking a rule, which for model sailing, usually is a one-turn penalty including one tack and one gybe. However, if you are protested (for allegedly breaking a rule) and elect not to do a turn penalty and later are found to have broken a rule, you may be scored a DSQ (disqualified). Rules Tutorial 6 is a complete discussion of penalties and 7 discusses protests.

Section A Preamble

Throughout the Rules Tutorial we will refer to the right of way (r-o-w) boat and the keep-clear boat so we need to define these terms. The preamble to Section A very simply defines r-o-w as follows: A boat has the right of way when the other boat is required to keep clear of her. However, some rules in Sections B, C and D limit the actions of a right of way boat. To better understand what it means to keep clear we need to look at the RRS definition for Keep Clear. It reads: One boat keeps clear of another if the other can sail her course with no need to take avoiding action and, when the boats are overlapped on the same tack, if the leeward boat can change course in both directions without immediately making contact with the windward boat. As you read the RRS and Rules Tutorial you will notice at times only the keep-clear boat is referred to and other times, only the r-o-w boat. Since the rules apply between pairs of boats, when the keep-clear boat is mentioned then the other boat is the r-o-w boat and when the r-o-w boat is mentioned then the other boat is the keep-clear boat.

Now, let's get started with our discussion of the primary rules. In general, we will look at each rule and then see how it applies on various parts of the course. As we do this, we'll mention other rules that may have an effect as a result of actions taken to comply with the rule being discussed. The other rules mentioned are discussed in detail in other parts of the Rules Tutorial.

RRS 10—On Opposite Tacks (The Starboard/Port Rule)

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

In its simplest form, this is an easy one. If you are a port-tack boat and approaching a starboard-tack boat, you must alter course to keep clear and avoid contact with her, when necessary. However, there are times when it is difficult to determine which tack your boat is on, particularly when it may be 100 feet or more away. We've all had it happen. Here's something that seems to help: Your boat's tack is the side opposite the one its main boom is on.

While it is easy to remember that a port-tack boat must keep clear of a starboard-tack boat, you must stay aware of other boats in your

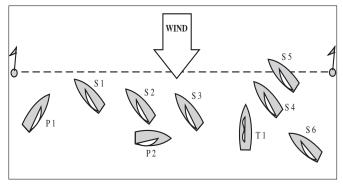
area, as wind changes can cause relative boat positions to change rapidly. Also, when sailing in close proximity to other boats, such as at the starting line and at marks, it is often difficult to keep clear. Keep in mind that RRS 14—Avoiding Contact, tells us that the r-o-w boat does not need to alter course to avoid contact until it is clear that the keepclear boat is not keeping clear, so as a port-tack, keep-clear boat it is up to you to make the first move to keep clear, not the starboard-tack, r-o-w boat.

While racing, it is usually desirable to be the r-o-w boat. The ability to always be the r-o-w boat involves the application of tactics. As we look at the rules, we'll also look at some tactics as well.

RRS 10—At the Start

In the last minute before the starting signal, the starting area becomes a very congested place. If the starting line is set fairly perpendicular to the wind, the majority of the fleet will probably be on starboard tack and spaced out along the starting line. Normally this is not the time to be on port tack, since RRS 10 states that a port-tack boat must keep clear of a starboard-tack boat. If you are a port-tack boat, your options to keep clear are limited. Let's take a look at what these options may be. You can look for an open spot on the starting line...very risky. Starboard-tack boats are also looking for open spots and will often reach along the line, planning to become close-hauled with good speed at the starting signal. To keep clear, you may be forced to go over the line early; not good. If you are back away from the line, you may be able to bear off to keep clear, but sailing through a starboard-tack fleet on port tack is not an easy task and often results in a poor start. Another choice is to tack onto starboard tack. However, RRS 13, requires a tacking boat to keep clear of all other boats, regardless of tack, until she is on her new close-hauled course.

Unless the starting line favors a port start, and the majority of the fleet is starting on port tack, a starboard-tack start may be the best choice. Normally a starboard-tack start is much safer, but even if you are a starboard-tack boat, under RRS 11 or RRS 12, you still may be a keep-clear boat relative to other starboard-tack boats. RRS 11 is the Windward/Leeward rule and very important at the start, since a leeward boat may luff an overlapped, windward boat over the starting line early if she chooses to.





Now, let's take a look at Figure 10-1, it illustrates a starting line just before the starting signal. Boat P1 is the port-tack, keep-clear boat relative to S1, the starboard-tack, r-o-w boat. As the keep-clear boat,

P1 must take some kind of action to keep clear of S1. It would appear that a tack onto starboard tack, just to leeward of S1, might be the best choice. As P1 tacks, she is subject to RRS 13 and after completing her tack, RRS 15—Acquiring Right of Way.

A little further up the line, P2, on port tack, has elected to keep clear of starboard-tack, r-o-w boats S2 and S3 by bearing off and passing astern of them.

Boat T1, which was on port tack, is tacking onto starboard tack to keep clear of starboard-tack, r-o-w boats S4 and S6. As T1 changes tacks, she must keep clear of the other boats under RRS 13 and is subject to RRS 15 after completing her tack.

At the starboard end of the line, boats S4, S5, and S6 are all on starboard tack. Under RRS 11, S5 is the windward, keep-clear boat and has crossed the line early to keep clear of S4, the leeward r-o-w boat. S6, under RRS 12, is the clear astern, keep-clear boat and must avoid S4, S5, and also T1, but only after T1 completes her tack.

RRS 10-On the Windward Leg

As the fleet sails the first leg (normally the windward leg), there are usually many opposite-tack crossings, and RRS 10 says a port-tack boat shall keep clear of a starboard-tack boat. As opposite-tack crossings occur, usually one of three things will happen: the port-tack boat will have room to cross ahead of the starboard-tack boat; the port-tack boat will sail astern of the starboard-tack boat; or the port-tack boat will tack onto starboard tack. If the port-tack boat tacks onto starboard tack, she is subject to RRS 13 while tacking and after completion of the tack, may also be subject to RRS 15. If you are the starboard-tack boat, you are subject to RRS 14 and RRS 16—Changing Course.

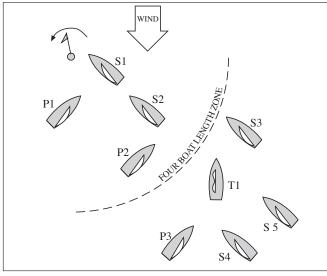


Figure 10-2.

In Figure 10-2, which shows the end of the windward leg and the windward mark, boat P3 is a port-tack, keep-clear boat and will not be able to pass ahead of starboard-tack, r-o-w boats S4 and S5. It looks like P3 will have to tack to keep clear, as she is too close to S4 to pass astern. Since P3 has not made the lay line, she will have to tack two more times to round the mark. A better choice might have been to bear off earlier and pass astern of S4 and S5, thus having to tack only once instead of three times. T1 was able to cross S4 and S5 and is now tacking on the lay line.

A tactic often used on the windward leg before boats are in the vicinity of the windward mark is: The starboard-tack boat will bear off enough to let the port-tack boat cross ahead, rather than holding course and forcing the port-tack boat to tack. A boat that tacks a little ahead

and to your lee (called lee-bowing) will often disturb your air, and you may find that you have to tack to get clean air, not always at the point on the course where you want to. If you are the port-tack boat, you might want to tack into a lee-bow position, and by doing so, may be able to gain position on the other boat.

RRS 10—At the Windward Mark

Often, as boats converge to round the windward mark, there is congestion. RRS 18—Mark-Room, in Section C, covers marks. However, RRS 18.1(a) states that RRS 18 does not apply *between boats on opposite tacks on a beat to windward*. When boats on opposite tacks are approaching the windward mark and both are on a beat, RRS 10 will be the rule that applies.

Most sailors try to approach the windward mark on starboard tack, as this gives them the r-o-w over any approaching port tack boats. In this situation, if you are a port-tack boat, you cannot claim room over starboard-tack boats at the mark under RRS 18 and must keep clear of them under RRS 10. If you decide to tack to keep clear, you are subject to RRS 13 and RRS 15. In addition, to add to your troubles, if you tack within the four boat length zone (the RRS definition for Zone says three lengths, but, RRS E1.3b changes it to four lengths for RC boats), you are subject to RRS 18.3—Tacking When Approaching a Mark. It reads: If two boats were approaching a mark on opposite tacks and one of them changes tack, and as a result is subject to rule 13 in the zone when the other is fetching the mark, rule 18.2 does not thereafter apply. The boat that changed tack (a) shall not cause the other boat to sail above close-hauled to avoid her 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. This complex rule (RRS 18.3) really encourages port-tack boats to approach the windward mark at least five lengths below the port lay line and tack outside the zone, thus eliminating much of the mess that often occurs at this mark. We'll look at RRS 18.3 in detail in Rules Tutorial 4.

Again, look at Figure 10-2. P1 has gotten in trouble by sailing clear to the port lay line. With so many starboard-tack boats lined up on the starboard lay line, P1 will have to tack on the wrong side of the mark or bear off sharply and try to find a hole to tack into. P2 did not sail to the port lay line and has found room to pass astern of S2 and tack to leeward of S3.

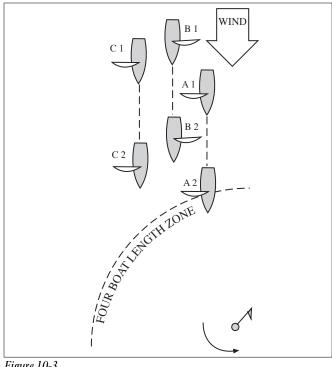
RRS 10-On the Reaching Legs and at the Reaching Mark

Normally the reaching legs will find all the boats approaching on the same tack, and often the reaching mark will be a gybing mark with boats approaching on one tack, leaving on the other. Under these conditions, boats should not be meeting on opposite tacks.

RRS 10—On the Downwind Leg and at the Downwind Mark

On the downwind leg, boats are usually on the same tack. However, with a direct following wind, or if any of the boats are sailing by the lee, there can be boats on opposite tacks. When this occurs, they are subject to RRS 10, and the port-tack boat must keep clear. If you are on port tack along with other boats and gybe onto starboard tack, don't forget, you are subject to RRS 15 when you gain the r-o-w. Take a look at Figure 10-3, position 1. Boat B is on starboard tack and, under RRS 10, is the r-o-w boat, as both A and C are on port tack and are keep-clear boats.

When boats reach the zone at a mark, one or more of them may be entitled to mark-room depending on the situation when they reach the zone. At an off-wind mark, a starboard-tack boat with r-o-w based





on RRS 10, will retain that r-o-w in the zone, but may also gain markroom or be required to give it depending on the situation. In Figure 10-3, position 2, boat A has reached the zone and RRS 18.2(b) applies. Boat A is clear ahead and under RRS 18.2(b) is entitled to mark-room, and although B retains her starboard r-o-w under RRS 10, she is now required to give A mark-room.

It appears boats B and C will be overlapped when the first of them reaches the zone and RRS 18.2(b) will apply. B will gain mark-room over C, as well as still be the starboard-tack, r-o-w boat under RRS 10. In this situation C is required to give B mark-room as well as keep clear of her. We will take a detailed look at the mark-room and r-o-w interactions in Rules Tutorial 4.

RRS 10—At the Finish

The finish may be wherever the race committee chooses to set it, at the end of a leg, in the middle, or anywhere in-between. It might be upwind or downwind. Regardless where it is, RRS 10 requires a porttack boat to keep clear of a starboard-tack boat as they approach and cross the finish line. Remember however, the finish line marks are marks of the course and, as such, are subject to RRS 18.

RRS 10—Boats on Another Leg of the Course

There are times when boats on different legs of the course will be sailing close to each other. Usually, this will be close to the marks, as lead boats round and sail back through the fleet on their way to the next mark. RRS 10 applies here as well. Regardless which leg of the course the boats are on, a port-tack boat must keep clear of a starboard-tack boat.

Now that we have looked at RRS 10, the first of the primary rules let's move on to the second one, RRS 11. We will look at how RRS 11 applies on various parts of the course just as we did with RRS 10.

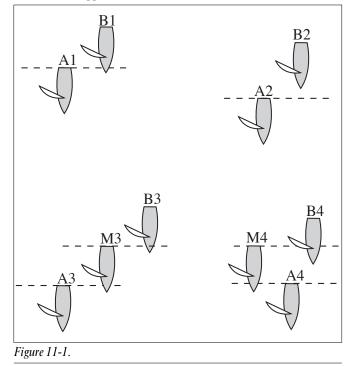
Throughout the discussions of RRS 11 and 12 we will be using the terms"luff" and "luffing," so let's define their meanings, as we'll be using them. To luff is to change course toward the direction of the wind. If an overlapped leeward boat "luffs" (changes course toward the wind), and

thus changes course toward the overlapped windward boat, the leeward boat is "luffing" the windward boat. Since the RRS allow the leeward boat to do this under certain conditions, the leeward boat has "luffing rights" under those conditions.

RRS 11-On the Same Tack, Overlapped (The Windward/Leeward Rule)

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

In its simplest interpretation, if you are overlapped with a boat on the same tack and she's to leeward (downwind) of you, you must keep clear of her. However, in its total application, RRS 11 is a very complex rule, since many rules in Section B can modify RRS 11. For this rule to apply, one of the conditions that must be met is being overlapped, so let's see how the RRS define overlap. Clear Astern and Clear Ahead; Overlap—One boat is clear astern of another when her hull and equipment in normal position are behind a line abeam from the aftermost point of the other boat's hull and equipment in normal position. 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. See Figure 11-1 to see how this works. At position 1, A is overlapped with B. At position 2, A is clear ahead and B is clear astern; they are not overlapped. At position 3, A and B are not directly overlapped, but because M (between them) overlaps both A and B, A and B are overlapped. At position 4, A and B are not directly overlapped, and again, M overlaps them both, but because M is not between them, A and B are not overlapped.



RRS 11: At the Start

Just before the starting signal, frequently most of the fleet will approach the starting line on the same tack. Normally, there are many overlaps, and RRS 11 is the rule that applies between boats. Let's look at how RRS 11 applies to different areas of the starting line. To do this we'll use Figure 11-2. Starboard tack is the favored tack, and the starting signal has not yet sounded.

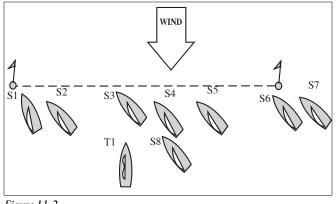


Figure 11-2.

At the port end of the line, if the mark is surrounded by navigable water, S1 cannot claim "room at the mark" under the Section C Preamble. However as the leeward, r-o-w boat, she can sail as high as she likes to try to squeeze by the mark, and under RRS 11, the windward boat S2 must keep clear. If r-o-w boat S1 does luff S2, under RRS 16.1, she must give S2 room to keep clear. If S1 goes beyond head to wind, she would be changing tacks and under RRS 13 would become the keepclear boat.

In the middle of the line, S3 is the leeward, r-o-w boat in relation to the windward, keep-clear boat S4, and S4 is the leeward, r-o-w boat in relation to windward, keep-clear boat S5. Under RRS 11, S4 and S5 must each keep clear of the boat to her leeward, even to the point of luffing if the boat to leeward luffs. However, if the leeward, r-ow boat luffs, under RRS 16.1, she must give the windward, keep-clear boat room to keep clear. When more than two boats are overlapped (i.e. S3, S4, and S5), if S3 luffs, S4 must respond to S3's luff, and S5 must respond to S4's luff. But under RRS 16.1, each leeward, r-o-w boat must luff in such a way as to allow the boat to windward to be able to keep clear, even if that requires waiting for a boat further up the chain to react, in this case, boat S5. S5 is not required to anticipate that S3 may luff S4, and in response, that S4 will luff her. She is only obligated to respond to S4's luff. International Sailing Federation (ISAF) Case 92 supports this by stating: "A keep-clear boat is required to act only in response to what the r-o-w boat is doing at the time, not what the r-o-w boat might do subsequently."

T1 is a port-tack boat that is tacking onto starboard tack. Under RRS 13, from the time she is head to wind, until she is close-hauled on her new tack, she must keep clear of all other boats. At that point, she may become the leeward, r-o-w boat under RRS 11, if she overlaps any windward boats.

S8 has established an overlap with S4, to leeward and from clear astern, and under RRS 11, S8 is the r-o-w boat with luffing rights. Even though S8 established the overlap from clear astern and within two boat lengths of S4, she may luff as she pleases before the starting signal. The reason S8 can luff before the starting signal is that the RRS definition for proper course tells us a boat has no proper course before the starting signal. However, under RRS 17—On the Same Tack; Proper Course; after the starting signal, as long as that same overlap exists, S8 shall not sail above her proper course, which is usually close-hauled if the leg is a beat to windward. However, under RRS 15, S8 must initially give S4 room to keep clear when the overlap is established, and if S8 does luff, under RRS 16.1, she must give S4 room to keep clear. The same rules that apply to S8 would apply to any other boat that establishes an overlap in this manner. Establishing an overlap to leeward and from clear astern is a common occurrence in the starting line area.

navigable water and boats S6 and S7 are on their final approach to start, under the Section C Preamble, S7 cannot claim mark-room. However, if the starting mark was not surrounded by navigable water or they were not on their final approach to start, then under the Section C Preamble, S7 would be entitled to mark-room. Since RRS 18 does not apply and they are overlapped, leeward, r-o-w boat S6 and windward, keep-clear boat S7, are subject to RRS 11. If windward boat S7 attempts to push between the mark and leeward boat S6 without having room, she breaks RRS 11 if contact is made with S6, or if S6 alters course to avoid contact. If S7 also touches the mark, she breaks RRS 31—Touching a Mark as well. This action of S7 pushing in at the starting mark is considered"Barging."although it is a term not found in the RRS. There is not a specific "anti-barging rule," although there was until about 20 years ago, at which time it was deleted.

Based on what we've discussed about RRS 11, let's look at some of the tactics that can be used at the start. We have talked about the leeward, r-o-w boat luffing the windward, keep-clear boat; why would the leeward boat want to do this? Among other things, a good start is having clean air and smooth water. As you approach the line to start, it is not ideal to have another boat on your lee bow. This will produce disturbed air and rough water. If you can, it is a good idea to move up the line a little to get away from the leeward boat. Take a look at S3, S4, and S5; S4 is in the position of needing to clear her air that is being disturbed by S3. In order to do this, she will have to force S5 to move up by luffing S5 and getting more space between herself and S3.

Another tactic is to begin the final approach to the starting line on the starboard lay line, as it appears that S6 has done. Any boat to windward and overlapped will be required under RRS 11 to keep clear, and since S6 is on the lay line, this should prevent another boat from starting to windward of her. As discussed with S4 and S8, the leeward r-o-w boat has luffing rights and S6 can luff S7, even to the point of forcing S7 to pass on the wrong side of the starting mark. However, if S6 established the overlap from clear astern of S7, then at the starting signal, she is required under RRS 17 to sail no higher than her proper course. In addition, if another boat is on her lee bow after crossing the starting line, S6 should be in a position to tack onto port tack to clear her air. Also as mentioned earlier, if S7 tries to push in between the starting mark and S6, she is barging, and S6 is under no obligation to give her room. If S7 does barge, S6 should protest her. Barging boats usually know they shouldn't be there and almost always have room to sail on the wrong side of the mark and restart behind the boats that are starting correctly.

RRS 11: On the Windward Leg

As the windward leg is sailed, you will often find yourself closehauled, on the same tack, and overlapped with another boat. Under RRS 11, the windward boat must keep clear, and if she cannot point as high as the leeward, r-o-w boat, she may even have to tack away in order to keep clear. In addition, if the overlap was established in any way other than from clear astern, RRS 17 does not apply and the leeward, r-o-w boat will have luffing rights.

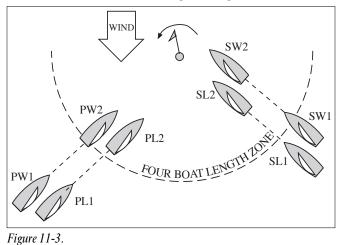
If a boat tacks into an overlapped, leeward position, she becomes the r-o-w boat under RRS 11. However, under RRS 13, while she was tacking, she was the keep-clear boat when she passed head to wind, until on a close-hauled course. Also, upon becoming the r-o-w boat, under RRS 15 the tacking boat must initially give the other boat room to keep clear. Once the tacking boat has fulfilled her obligations under RRS 13 and RRS 15 she can luff up to "head to wind," since she did not establish the overlap from clear astern and is not limited by RRS 17. If the leeward boat does luff the windward boat, under RRS 16.1, she must do it in a manner that allows the windward boat to keep clear.

At the starboard end of the starting line, since the mark is surrounded by

If you are overlapped at the starting line, and as you start up the windward leg, it is important to remember how you became overlapped, as an overlap that was established from clear astern limits a leeward boat to her proper course (usually close-hauled) under RRS 17, and continues to do so as long as that same overlap continues. If the leeward, r-o-w boat can luff, she is still subject to RRS 16.1.

RRS 11: At the Windward Mark

As boats approach the windward mark zone and if they are overlapped on the same tack, then they are subject to RRS 11 and the windward boat must keep clear of the leeward boat. When the lead boat of a pair reaches the zone, the obligation of keeping clear under RRS 11 will continue, however the inside boat (the boat between the mark and the other boat) will become entitled to mark-room. It doesn't matter if the inside boat is the r-o-w or keep-clear boat; she still is entitled to mark-room. Let's take a look at a couple of the possibilities.



In Figure 11-3, let's look at the starboard-tack boats SL and SW. At position 1, they are overlapped as the windward, keep-clear boat SW reaches the zone, and she must keep clear of the leeward, r-o-w boat SL. As the lead boat SW enters the zone RRS 18 starts to apply, and not only is she still the windward, keep-clear boat under RRS 11, but under RRS 18, she is also the outside boat and must give inside boat SL mark-room. At position 2, nothing has changed; SW must still give SL mark-room and keep clear. If SL established the overlap in any way except from clear astern, RRS 17 does not apply and if she chooses, she can sail on past the mark, not bearing off on her proper course toward the next mark, and SW must keep clear under RRS 11. One reason SL might choose to sail straight on would be to avoid a pile up at the mark. ISAF Case 9 supports this by stating: "While in certain circumstances boats are prohibited from sailing below or above a proper course, there is no rule that requires a boat to sail a proper course." If SL established the overlap from clear astern, then under RRS 17, she cannot sail above her proper course toward the next mark, although sailing straight on to avoid a pile up at the mark may be her proper course.

Again, in Figure 11-3, let's look at the port-tack boats PW and PL. At position 1, they are overlapped and are subject to RRS 11. The windward, keep-clear boat PW must keep clear of leeward, r-o-w boat PL. When the lead boat reaches the zone, RRS 18 starts to apply. At position 2, the windward, keep-clear boat PW, which is still the keep-clear boat under RRS 11, must now be given mark-room as the inside boat under RRS 18. PL is required to only give PW room enough to pass the mark in a seamanlike way. However in this situation, since PW is overlapped to windward and inside of PL, mark-room gives PW room to tack at the mark and PL must also consider this when giving mark-

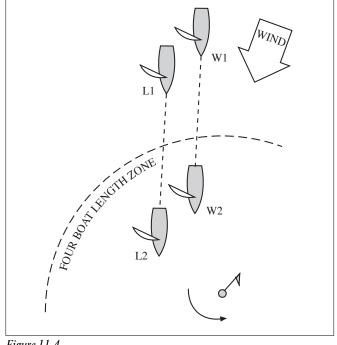
room. Frequently, with a port rounding at the windward mark, an inside port-tack boat will change tacks onto starboard as soon as she can clear the mark.

RRS 11: Off-Wind Legs

On the off-wind legs, just as anywhere else on the course, RRS 11 requires an overlapped windward boat to keep clear of a leeward boat. However, on the off-wind legs many overlaps are established from clear astern which can involve RRS 12. We are going to look at RRS 12 next and since there can be interaction between RRS 11 and 12, after we discuss RRS 12, we'll take a detailed look at that interaction and how RRS 11 applies on off-wind legs.

RRS 11: At the Off Wind Marks

At an off wind mark, if you are an overlapped leeward, r-o-w boat under RRS 11 as the first boat of a pair reaches the zone and RRS 18 begins to apply, you will continue to be the r-o-w boat. However, depending on whether you are the inside or outside boat you may also be entitled to mark-room. Lets take a look at the situation when the r-o-w boat is the outside boat.





In Figure 11-4, position 1, leeward boat L is overlapped with windward boat W and is the r-o-w boat under RRS 11, and W is required to keep clear. At position 2, the boats have entered the zone and even though L is still the r-o-w boat under RRS 11, under RRS 18 she must give the inside boat W mark-room.

However had the wind instead been coming from the left side of Figure 11-4 and both boats been on starboard tack, then W would have been the leeward, r-o-w boat. In that situation W, being the inside boat, would have gained mark-room as well as remaining the leeward, r-o-w boat and L would be required to keep clear and give mark-room.

RRS 11: On the Final Leg and At the Finish Line

As boats sail the final leg, regardless of whether it's an up-wind or down-wind leg, RRS 11 will apply to overlapped boats in the same manner as it does on the other up-wind and down-wind legs of the course.

As boats approach and cross the finish line, if they are overlapped, they are subject to RRS 11 in the same way as on any other part of the course; a windward, keep-clear boat is required to keep clear of a leeward, r-o-w boat. The finish line, itself, does not modify RRS 11. Also, remember, the finish line marks are marks of the course and, as such, are subject to RRS 18.

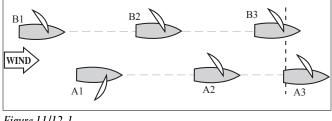
Now that we have completed the first two primary rules, RRS 10 and 11, let's look at the third one RRS 12. Our discussion of RRS 12 will simply be a short discussion of the rule, not how it applies on various parts of the course as we did with RRS 10 and 11. After discussing RRS 12 we will move on to a discussion of how RRS 11 and 12 interact along with seeing how RRS 11 applies on the off-wind legs.

RRS 12-On The Same Tack, Not Overlapped (The Clear Astern/Clear Ahead Rule)

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

The simple interpretation of this rule is: if you are the clear-astern boat, you are the keep-clear boat relative to any boats that are clear ahead and on the same tack. This is the case regardless of where it happens on the course: at the start, the marks, or the upwind or downwind legs. Under RRS 12, you are the keep-clear boat as long as you stay clear astern. However, if an overlap is established with a clear-ahead boat, RRS 12 turns off, and RRS 11 turns on. Under RRS 11, you may become the r-o-w boat or remain the keep-clear boat, depending on whether the overlap is established to windward or leeward. Remember, if an overlap is established inside the zone, you may be subject to certain rules in RRS 18.

Since being clear astern, clear ahead, or overlapped governs which rule, RRS 11 or RRS 12, is in effect, you might want to look at Figure 11-1 again before going on.





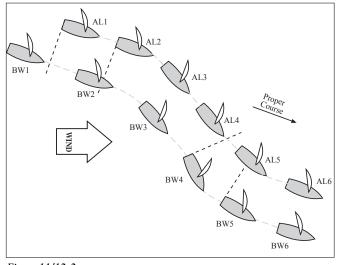
As we look at these two rules, RRS 11 and 12, keep in mind that they are same-tack rules, and for either one to be in effect, the boats involved must be on the same tack. To illustrate, let's look at Figure 11/12-1, position 1. Boat A is clear ahead and on port tack, boat B is clear astern and on starboard tack. Because they are on opposite tacks, B is the r-o-w boat under RRS 10. RRS 12 is not in effect because the boats are not on the same tack. At position 2, A has gybed onto starboard tack, and now they are both on the same tack. RRS 10 turns off and RRS 12 turns on, and B, which was the r-o-w boat under RRS 10, now becomes the clear-astern, keep-clear boat under RRS 12. At position 3, B has established an overlap to leeward of A, and again there is a change of the r-o-w boat, as RRS 12 turns off and RRS 11 turns on. By establishing an overlap to leeward of A, under RRS 11, B has become the leeward, r-o-w boat, and A is now the keep-clear windward boat. In this example, we have looked only at the basic applications of RRS 11 and 12. RRS 11 and 12 may be limited or modified by other rules, and we'll look at them as we look at RRS 11 and 12 in greater detail.

The term "Proper Course" will keep coming up in our discussion of RRS 11 and 12, so let's see how the RRS define it: Proper Course-A course a boat would sail to finish as soon as possible in the absence of the other boats referred to in the rule using the term. A boat has no proper course before her starting signal. When proper course is mentioned, we normally think of a course that is pretty much a straight line between two marks. Actually, a straight line between two marks is called the Rhumb Line, although it could also be a proper course. However, there can be more than one proper course. ISAF Case 14 supports this by stating, "The case illustrates the fact that there can be more than one proper course."Also, it states, "Which of two different courses is the faster one to the next mark cannot be determined in advance." When you stop and think about it, there are often factors that will cause you to sail a course that is other than a straight line between marks. Some of these factors can be things such as: current that varies in different locations on the pond, variations in wind strength and direction due to topography, sometimes bearing off at the start of a reaching leg and coming back up at the end, and there are others. Remember, what you judge to be the fastest course to the next mark may not be how another would see it.

Now that we have the rules and terms fairly well defined, let's start looking in detail at some of the situations that can arise as RRS 11 and 12 interact with each other. In the following two examples, for the purpose of discussion, we'll accept proper course to be as indicated in the Figures.

RRS 11 and 12—Overlap to Windward

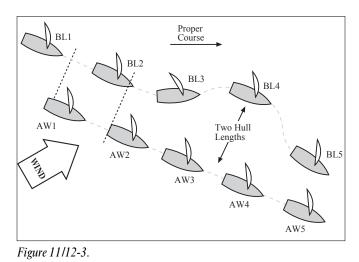
First we'll look at what happens when the clear-astern boat establishes an overlap to windward of the boat clear ahead. In Figure 11/12-2.





position 1, BW is the clear-astern, keep-clear boat under RRS 12. At position 2, BW has established an overlap to windward of AL, and RRS 12 turns off and RRS 11 turns on. Under RRS 11, BW remains the keep-clear boat, but now as the windward boat. AL is the leeward, r-o-w boat and is not limited to her proper course since she did not establish the overlap from clear astern and to leeward, hence RRS 17 does not apply. At position 3, AL is luffing BW, and since AL acquired the leeward r-o-w due to the action of BW, RRS 15 does not apply. However, as AL luffs BW she is subject to RRS 16.1. At position 4, BW has luffed sharply and broken the overlap, and since AL is now clear astern, RRS 11 turns off and RRS 12 turns on. Now, under RRS 12, AL must keep clear, thus allowing the clear-ahead, r-o-w boat BW to bear off toward her proper course; although, as she does so, she is subject to RRS 15 and RRS 16.1. At position 5, as BW bears off toward her proper course, she again becomes overlapped with AL, and RRS 12 turns off and RRS 11 turns on. This time, however, AL is clear astern and to leeward at the point when the overlap is established, so RRS 17 limits AL to her proper course. At position 6, AL does not have luffing rights and has laid off to her proper course. However, as the windward boat, BW must keep clear.

In this example, we see a couple tactics, which are often used. The first one is AL luffing BW in an attempt to keep BW from passing to windward. The second one is BW luffing sharply to break the overlap and end AL's right to luff and then quickly re-establishing the overlap, thus limiting AL to her proper course under RRS 17.



RRS 11 and 12-Overlap to Leeward

Now let's look at what happens when the clear-astern boat establishes an overlap to leeward of the boat clear ahead. In Figure 11/12-3, position 1, under RRS 12, BL is the clear-astern, keep-clear boat. Both boats are sailing a little above their proper courses. At position 2, BL has established an overlap to leeward and within two hull lengths of AW, and RRS 12 turns off and RRS 11 turns on. Under RRS 11, AW has become the windward, keep-clear boat and BL the leeward, r-o-w boat, with BL subject to RRS 15 and RRS 16.1. At the same time as RRS 11 takes effect, so does RRS 17. At position 3, BL has laid off to her proper course as RRS 17 requires. However, at position 4, AW has elected to continue to sail above her proper course and, by doing so, has allowed BL to sail to leeward more than two hull lengths, thus breaking the overlap for the purpose of applying RRS 17. At position 5, BL has come up on AW and again established an overlap, only this time not from clear astern, so she is not limited by RRS 17 and may luff AW, if she chooses.

In this example, we don't know the wind strength or how far the boats are from the mark, so a judgment cannot be made as to whether AW made the right choice by sailing straight on. If AW had intended to lay off towards the mark fairly soon, she might have been better off to do it when BL was forced to lay off under RRS 17, as the same overlap that was limiting BL under RRS 17 would have continued.

These two examples, Overlap to Windward and Overlap to Leeward, were fabricated to illustrate how RRS 11 and 12 work and interact with each other. Chances are you won't find yourself involved in the exact sequences discussed; although, it could happen.

With the discussion of the first three primary rules completed, let's look at the forth one, RRS 13.

RRS 13—While Tacking

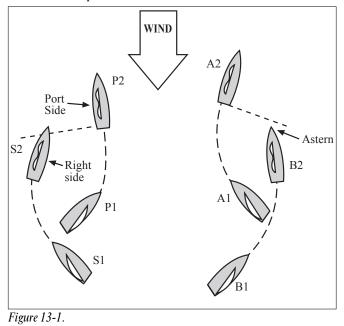
After a boat passes head to wind, she shall keep clear of other boats until she is on a close-hauled course. During that time rules 10, 11, and 12 do not apply. If two boats are subject to this rule at the same time, the one on the other's port side or the one astern shall keep clear.

The simple interpretation of this rule is: if a boat is tacking, she

must keep clear of other boats while doing so. However, let's take a detailed look at RRS 13. First, a boat is always on starboard-tack or porttack, there is no in-between. The side of the boat over which the wind is coming, or was coming over if the boat is in irons, determines the tack a boat is on. When you change tacks, you are tacking or gybing. Tacking is changing tacks by turning the bow of the boat beyond head to wind; gybing involves turning the bow of the boat away from the wind. RRS 13 states, *after a boat passes head to wind*," which establishes that RRS 13 applies only to a tacking boat, not to one that is gybing. There is no special rule for changing tacks by gybing.

A boat can head up, or luff, clear to the point of being head to wind, but does not actually change to the opposite tack until she passes head to wind. Under RRS 13, the tacking boat is the keep-clear boat from the time she passes head to wind until she is on a close-hauled course. A close-hauled course is approximately 45 degrees from the wind direction. A boat can be on a close-hauled course even if her sails are not full; nor does she have to have any headway; ISAF Case 17 supports this interpretation.

Notice that RRS 13 states that RRS 10, 11, and 12 do not apply during the time that the tacking boat is the keep-clear boat. If a boat has to alter course to avoid a tacking boat, or contact is made, the tacking boat has broken RRS 13. If contact is made, the other boat has broken RRS 14. Also, under RRS 15, if a tacking boat tacks into an r-o-w position, she must initially give the newly obligated keep-clear boat room to keep clear.



RRS 13 also covers the possibility of two boats tacking near each other at the same time (i.e. both boats between head to wind and close hauled simultaneously). Under RRS 13, the one that is on the other's port side or the one that is astern is the keep-clear boat. Just reading this is a little confusing, so let's look at Figure 13-1 to help make it easier to understand.

At position 1 boats S and P are on opposite tacks. At position 2, as boats S and P are tacking, S is on P's port side and that makes S the keep-clear boat. Another way to look at it is, the one on the other's right is "right," and since P is on the right side of S, P is the r-o-w boat. Remember, this is not a case of starboard/port tacks, but rather starboard and port sides of the boats. RRS 13 takes effect when the boats pass head to wind, not when they start tacking, they are still on the same tacks until they pass head to wind. As soon the boats are on a close-

hauled course, RRS 13 turns off, and whatever the applicable rule is turns on. In this case, it would be RRS 10.

Once more, see Figure 13-1, again this time, at position 1, boats A and B are on opposite tacks. At position 2, as the boats are tacking, B is the astern boat and, under RRS 13, is the keep-clear boat.

Since we just looked at RRS 13, and some skippers hail before they change tacks, this seems like a good time to discuss the subject of "hailing." The rules don't require a hail when a course change or other action is about to be taken, although RRS 20—Room to Tack at an Obstruction, is the exception and requires hailing as part of that rule. However, although a hail normally is not required and is not binding on the other boat, there are several good reasons why hailing is still a good idea. Hailing when you intend to make a course change alerts boats around you that you're going to do something. Although, even when you do hail, the other boat need not take any action in anticipation of having to keep clear; ISAF Case 53 supports this. Sometimes, hailing can help avoid a messy situation from developing, such as when several overlapping boats are approaching a mark, and all need to give room to the inside, overlapped boats. Another reason to hail is to alert other boats that you have the r-o-w. Also by hailing, others are made aware that something is going on, and by being aware of the incident they could be used as witnesses later if the situation develops into a protest.

One last word about hailing—don't hail falsely, such as hailing starboard when you are on port, or don't hail for room at a mark when you don't have it. While some think they can do this to "psych-out" the competition, it could be grounds for a protest under RRS 2—Fair Sailing or RRS 69—Gross Misconduct.

This concludes our look at the Primary Rules, RRS 10-13, in Section A of Part 2—When Boats Meet. Also along the way, we have mentioned rules in Sections B and C that limit or modify RRS 10–13. We will be looking at the other rules that were mentioned in other parts of the Rules Tutorial.

Rules Tutorial 3: Part 2, When Boats Meet; Section B—General Limitations

hile discussing the primary right of way (r-o-w) rules in Rules Tutorial 2 it was mentioned that rules in Sections B, C and D may modify those rules. In this part of the Rules Tutorial we are discussing the four Section B rules, Racing Rules of Sailing (RRS) 14 thru 17, which under certain conditions limit or modify some of the actions r-o-w boats may take.

Section B—General Limitations RRS 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 not be penalized under this rule unless there is contact that causes damage or injury.

This rule states that a boat shall avoid contact with another boat if reasonably possible and requires both the r-o-w boat and the keep-clear boat to avoid contact in order to minimize collisions. Sailing is not a contact sport and collisions are not intended to be part of it.

As boats approach each other on a collision course, the keep-clear boat is obligated to keep clear. In order to decide how to keep clear, she needs the r-o-w boat to sail a predictable course. RRS 16.1 requires the r-o-w boat, that does change course, to give the keep-clear boat room to keep clear. When is room enough room? This can only be answered when all the circumstances of any situation are considered, such as speed, distance and angle of convergence along with wind and wave conditions. Dave Perry, in his *Understanding the Racing Rules of Sailing*, offers the opinion that it is risky for the r-o-w boat to change course closer than two hull lengths from the keep-clear boat. Remember, a keep-clear boat can protest the r-o-w boat, under RRS 16.1, for changing course and not giving the keep-clear boat room to keep clear. International Sailing Federation (ISAF) Case 60 supports this. Although in Case 60, it was the r-o-w boat that protested under RRS 10, but in the end, the r-o-w boat was disqualified under RRS 16.1.

RRS 14 makes it clear that the r-o-w boat or one entitled to room, need not act to avoid contact until it is clear that the keep-clear boat is not keeping clear. However, when it does become clear that the keepclear boat is not keeping clear, the r-o-w boat should make every reasonable effort to avoid contact. ISAF Case 50 supports this by citing an incident in which a port-tack, keep-clear boat is crossing ahead of a starboard-tack, r-o-w boat, and at the last moment the starboard-tack boat bears off to avoid contact and files a protest. The port-tack boat, under RRS 10, was disqualified.

Some sailors appear to think that as the r-o-w boat, they should hit the keep-clear boat to prove the foul. This is the kind of action that RRS 14 is trying to discourage. ISAF Case 50 states that the r-o-w boat need not hold her course and hit the keep-clear boat to prove a collision was inevitable. If she does hold her course and a collision occurs, she breaks RRS 14.

RRS 14 also acknowledges that there will be situations when it may not be possible to avoid contact by stating: A boat shall avoid contact with another if reasonably possible. As an example, there are times when the r-o-w boat will see a keep-clear boat approaching and, because of the relative positions of the two boats, has normal expectations that the keep-clear boat will keep clear as required. When it becomes obvious at the last moment that the keep-clear boat will not attempt to keep clear, the r-o-w boat does not have time or room to avoid contact. ISAF Case 87 is based on an incident where a port-tack, keep-clear boat had time and room to bear off and pass astern of the starboard-tack, r-o-w boat but did not even attempt to. When it became obvious to the starboard-tack boat that the port-tack boat was not going to bear off, the starboard-tack boat could not avoid the collision. The port-tack boat hit her amidships. In the protest hearing it was found that the starboard-tack boat did not break RRS 14, since in that case it was not reasonably possible to avoid contact. The port-tack boat, under RRS 10, was disqualified.

When contact is made, what are the consequences under RRS 14? Let's look at the r-o-w boat first. RRS 14 states: A right-of-way boat or one entitled to room shall not be penalized under this rule unless there is contact that causes damage. So, for the r-o-w boat, if there is contact but no damage, there is no penalty.

RRS 14 also states: A boat shall avoid contact with another if reasonably possible. Previously, we discussed that there may be situations when it is not possible for the r-o-w boat to avoid contact. Even when contact seems certain, the r-o-w boat should attempt to change course, even if it's only to minimize the impact. Normally when it's not "reasonably possible" for the r-o-w boat to avoid contact, she will not be penalized. However, if a protest is filed, then it will be up to the protest committee to gather the facts and make that decision.

When avoidable contact is made, and the r-o-w boat has made no attempt to avoid the contact, she has broken RRS 14. If there is damage, and since a Part 2 Rule has been broken, RRS 44.1 requires a penalty. If the damage is serious, RRS 44.1(b) requires a boat to retire. When a protest involving damage is submitted to a protest hearing, then it is up to the protest committee to decide if the r-o-w boat attempted to avoid contact and if the damage is serious, as well as the proper penalty.

Since R/C sailors sail from shore, there are times when it can be difficult to determine if damage is minor or serious, or even if there is damage. It seems that if damage is suspected, the prudent action would be to take a penalty turn, unless you can see the damage is serious. Then, the penalty is to retire.

Now let's look at the keep-clear boat. The first sentence of RRS 14 is speaking to all boats, so strictly speaking, if contact is made, the keep-clear boat can be penalized under RRS 14. However it is likely she will have broken another Part 2 Rule and will be penalized under that rule.

There are other US Sailing Appeals and ISAF Cases that support and add to our discussion of RRS 14. We don't have space to discuss them all. If you would like to read them, they can be found on U.S. Sailing's website at: <www.ussailing.org>.

RRS 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 tells a boat acquiring the r-o-w over another boat that she must do it in a manner that initially allows the other boat room to keep clear. Figure 15-1a shows boat S, which tacks onto starboard tack so close to port-tack, keep-clear boat P that it is not possible for P to keep clear. Boat S has broken RRS 15, and if contact is made, she has broken RRS 14 also. Under RRS 13 as S tacked, she was the keep-clear boat. When S became close-hauled on her new course, under RRS 10 she became the r-o-w boat. The issue here is not whether S is the r-o-w boat, but when she became the r-o-w boat, she did not initially give P room to keep clear.

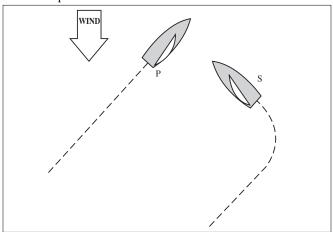
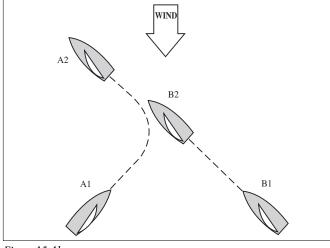


Figure 15-1a.





In Figure 15-1b, position 1, port-tack, keep-clear boat A is approaching starboard-tack, r-o-w boat B. At position 2, Boat A has tacked onto starboard tack ahead of B and under RRS 12 has become the clear-ahead, r-o-w boat. Under RRS 13, she remained the keep-clear boat while tacking, until close-hauled on her new course. When A became the clear-ahead, r-o-w boat, B became the clear-astern, keep-clear boat. A is required by RRS 15 to initially give B room to respond to her newly acquired, keep-clear obligation. A tacked far enough ahead of B that B initially had room to keep clear, even considering the fact that A slowed as she tacked while B continued at her same speed. Had A completed her tack so close to B that B was unable to keep clear, then A would have broken RRS 15.

RRS 15 is talking to the r-o-w boat, but a time factor is implied for the keep-clear boat. RRS 15 states: *initially give the other boat room to keep clear*; so as each second ticks by, the protection afforded to the keep-clear boat diminishes. The amount of time available can only be determined when the conditions of each situation are considered, such as boat speed, wind strength, and convergence angle. RRS 15 does not shift the r-o-w, keep-clear obligations; it only provides the keep-clear boat a reasonable amount of time to fulfill her newly acquired obligation. However, the keep-clear boat must begin to keep clear as soon as she becomes the keep-clear boat; otherwise, she may run out of time and lose the protection RRS 15 gives.

If a boat acquires the r-o-w due to the actions of another boat, RRS 15 tells her she is not obligated to initially allow the keep-clear boat room to keep clear. In other words, if you become the keep-clear boat by your own actions, you had better leave the r-o-w boat plenty of room and be ready to immediately keep clear, as the r-o-w boat is not subject to RRS 15.

There are many US Sailing Appeals and ISAF Cases that include RRS 15 in their findings, but we'll only mention a couple of them. ISAF Case 24 states: "When the right of way suddenly shifts from one boat to another, the boat with the newly acquired right of way must give the other boat space and time for response and thus a fair opportunity to keep clear. The right of way boat's obligation under rule 15 is not a continuing one; it protects the keep-clear boat only temporarily, and only if she responds promptly". The abstract of ISAF Case 27 adds to this by stating: "When a boat acquires the right of way as a result of her own actions, the other boat is entitled to room to keep clear."

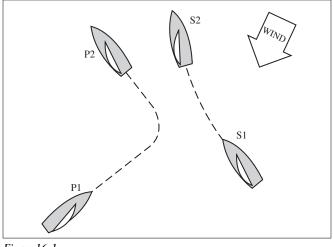
RRS 16—Changing Course

Since RRS 16 addresses changing course, let's define changing course: A boat is changing course when she changes her compass heading; a boat is not changing course when she is sailing straight-ahead. In the US Sailing Appeals, the answer to Question 33 states: "A boat changes course when she sails the arc of a circle or any other course where she changes direction, whether or not she moves her helm. This includes a change from moving forward to moving backward, or vice-versa. To change course means to change the direction in which the boat is heading or moving."

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

RRS 16.1 is clearly talking to the r-o-w boat. It tells her not to make unpredictable or rapid course changes that will not allow room for the keep-clear boat to keep clear. Also, when boats are on a collision course, the r-o-w boat needs to sail a predictable course, so the keepclear boat can determine how to keep clear. RRS 16.1 does not shift any r-o-w/keep-clear obligations, nor does it restrict the keep-clear boat. ISAF Case 52 states: "RRS 16.1 does not restrict the course of a keepclear boat." How RRS 16.1 applies depends on the circumstances of each situation. Some situations may limit how much, or how fast, the r-o-w boat can change course toward the keep-clear boat, while others may restrict the r-o-w boat in making any course change that would prevent the keep-clear boat from keeping clear. Before the r-o-w boat makes a course change near the keep-clear boat, she needs to consider the time and room required by the keep-clear boat to keep clear. Of course the keep-clear boat needs to respond promptly. Remember, just because she changes course near a keep-clear boat, the r-o-w boat doesn't break RRS 16.1 as long as the keep-clear boat can keep clear by promptly responding in a seamanlike manner.

Figure 16-1a, position 1, shows starboard-tack, r-o-w boat S changing course to windward far enough from port-tack, keep-clear boat P, so that P has room and time to respond, as required by RRS 16.1. At position 2, to keep clear, P has tacked onto starboard tack, on S's lee bow. As P was tacking, under RRS 13 she continued to be the keep-clear boat. Upon completing her tack and becoming close-hauled, under RRS 11 she is now the leeward, r-o-w boat and is required by RRS 15 to initially give S room to keep clear. The r-o-w/keep-clear roles





required by RRS 16.1 have now reversed. As S changed course while approaching P, she had to do it in a manner that gave P room to keep clear. Now, if P changes course, she must allow S room to keep clear.

A tactic often used by a starboard-tack, r-o-w boat to encourage a port-tack, keep-clear boat to cross ahead rather than tacking into a leebow position is, the starboard-tack boat will bear off enough to allow the port-tack boat to cross ahead and hail the port-tack boat to that effect. Of course, hailing is not required, nor is it binding, but it does let the port-tack boat know that you intend to pass astern of her.

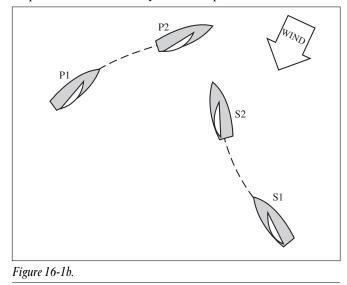


Figure 16-1b shows a situation similar to the one in Figure 16-1a, but this time, at position 1, port-tack, keep-clear boat P is keeping clear by steering a course that should allow her to safely cross ahead of starboard-tack, r-o-w boat S. At position 2, S changed course so close to P that she did not give P room to keep clear. Even if P responds immediately, she still has nowhere to go; even by tacking, she can't continue to keep clear. Boat S has broken RRS 16.1, and if contact is made, she has broken RRS 14 also. In this situation, under RRS 16.1, it isn't a case of how much or how fast S changed course, but rather, when the boats are this close, any course change to windward by S will not give P room to keep clear. S should have held her course, and if at the last moment she had to bear off to avoid contact, she should protest P under RRS 10.

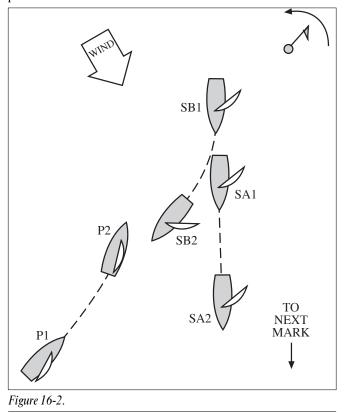
There are sailors who seem to think that when boats are crossing tacks, any course change by the r-o-w boat that requires a course change by the keep-clear boat, is not allowed. Some choose to call this action by the r-o-w boat "hunting," but regardless of what you want to call it,

RRS 16.1 allows it as long as the r-o-w boat gives the other boat room and time to keep clear, as we see in Figure 16-1a. R-o-w boats often make course changes for tactical reasons and tactics frequently influence outcomes in sailboat racing.

In Figures 16-1a and 16-1b, we looked at RRS 16.1 only as it applies to boats meeting on opposite tacks. RRS 16.1 applies anytime boats meet. We'll look at other situations later.

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 is addressing a specific condition, which is, in order to keep clear, the keep-clear boat is steering a course to pass astern of the r-o-w boat. RRS 16.2 is still talking to the r-o-w boat, but here it's not a case of how fast she changes course, but rather, she breaks RRS 16.2 if she makes any course change that results in the keep-clear boat need-ing to make an immediate course change in order to continue keeping clear. In Figure 16-2, position 1, starboard-tack boats SA and SB have rounded the mark and are heading for the next mark. Port-tack boat P is approaching the mark and is keeping clear by steering a course to pass astern of SB. At position 2, SB, which is astern of SA, has changed course to pass to windward of SA. The port-tack, keep-clear boat P had to immediately change course in order to continue keeping clear of starboard-tack, r-o-w boat SB. SB has broken RRS 16.2 and P should protest.



RRS 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 remained 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. Before discussing RRS 17, we need to be sure we understand a couple of terms mentioned in the rule; they are Overlapped and Proper Course. These were discussed in detail in Rules Tutorial 2. It would be good to go back and read them again before we get into the discussion of RRS 17.

Now let's take a look at RRS 17. When a boat, by establishing an overlap to leeward and within two hull-lengths of another boat, gains the r-o-w under RRS 11, she may be subject to RRS 17, depending on how the overlap was established. If the overlap was established from clear astern, then RRS 17 limits the leeward, r-o-w boat to not sailing above her proper course while they remain overlapped within two hull-lengths. However, under RRS 11 the windward, keep-clear boat must still keep clear.

When an overlap is established in any way other than within two hull-lengths to leeward and from clear astern, RRS 17 does not limit the leeward boat to not sailing above her proper course. In other words, she has luffing rights on the windward boat. Although the windward boat is required by RRS 11 to keep clear, the leeward boat still must comply with RRS 15 when the overlap is first established and RRS 16 if she changes course.

A leeward, r-o-w boat limited by RRS 17 can still sail above her proper course, if in doing so she promptly sails astern of the windward, keep-clear boat. When changing course to pass astern, RRS 16.1, requires the leeward boat to allow the windward boat room to keep clear. A leeward boat limited by RRS 17 that heads up to pass astern of a windward boat and then bears off because she can't clear the windward boat has broken RRS 17.

RRS 17 also states that it does not apply if the overlap begins while the windward boat is tacking and is required by RRS 13 to keep clear, even when the leeward boat establishes the overlap within two hull-lengths and from clear astern.

For an example of how RRS 15, 16.1, and 17 work, look at Figure

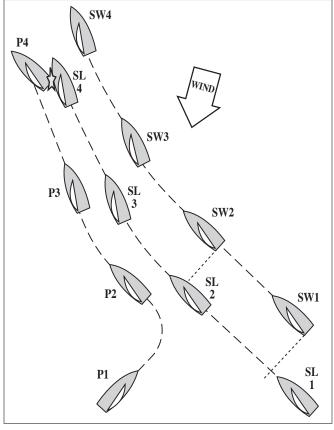


Figure 17-1.

17-1. There is a lot going on in this example, just as when we are sailing. At position 1, under RRS 12, SW is the clear-ahead, r-o-w boat; SL is the clear-astern, keep-clear boat. Boat P, under RRS 10, is the port-tack, keep-clear boat relative to starboard-tack, r-o-w boats SW and SL. This is a windward leg and all three boats are close-hauled.

At position 2, SL has established an overlap to leeward and within two hull lengths of SW and under RRS 11 is now the leeward, r-o-w boat, and SW is the windward, keep-clear boat. Since SL established the overlap from clear astern, under RRS 17, she is limited to not sailing above her proper course, which is normally closed-hauled on the windward leg. The port-tack, keep-clear boat P has elected to keep clear by tacking onto starboard tack and to leeward of SL. Under RRS 13, P continued to be the keep-clear boat until she was close-hauled on starboard tack, at which time, under RRS 11, she became the leeward, r-o-w boat relative to SL. Since the overlap was not established from clear astern, P has luffing rights on SL. RRS 17 does not limit her to not sailing above her proper course.

At position 3, P is changing course to windward and is luffing SL after initially giving her room to keep clear as required by RRS 15. Under RRS 17, SL is limited to not sailing above her proper course relative to SW, but in this case, SL's proper course is to respond to P's luff. Remember, the definition of proper course tells us it's the course a boat would sail in the absence of the boat referenced in the rule using the term proper course. In this case, that is the windward boat SW. Since SL is sailing her proper course, windward, keep-clear boat SW, under RRS 11, will have to respond to leeward, r-o-w boat SL's luff. RRS 16.1 does not control how quickly a leeward, r-o-w boat can luff; it only limits her to doing it in a manner that allows the windward, keep-clear boat room to keep clear. In this example the boats are close to each other, and if P were to make a sudden and hard luff toward SL, not allowing her to keep clear in a seamanlike way, P breaks RRS 16.1, and SL should protest. With SW to windward and overlapped with SL, then P needs to luff slowly in order to allow SW time to respond to SL's luff. SL and SW do not need to anticipate that P will luff, so P needs to consider that and give them room and time to respond. Remember, ISAF Case 92 tells us: "When a right-of-way boat changes course, the keep-clear boat is required to act only in response to what the right-of-way boat is doing at the time, not what the right-of-way boat might do subsequently".

At position 4, P changes course by ending her luff and immediately bearing off very sharply, and by doing so her transom has swung into SL, not allowing SL room to keep clear. SL was keeping clear of P by responding to P's luff and could not, nor was required to, anticipate that P would end her luff and sharply bear off. P could have avoided contact by initially laying off more gradually. P has broken RRS 14 and 16.1, and SL should protest. Since the same overlap continues between SL and SW, once P stopped luffing SL, RRS 17 requires SL to not sail above her proper course, which is now close-hauled.

To a boat limited by RRS 17, proper course can mean different things on different legs of the course. On a windward leg, a close-hauled course is normally considered to be a boat's proper course. Proper course on an off-wind leg is often considered to be a straight line between the marks of that leg. However, as we discussed in Rules Tutorial 2, that is not always the case. Remember, by definition, a boat's proper course is: *A course a boat would sail to finish as soon as possible in the absence of the other boats referred to in the rule using the term.* The proper course of a boat that is limited under RRS 17 can only be determined *in the absence of the other boats referred to in the rule using the term,* which in RRS 17 is normally the windward boat. This means a boat that is limited by RRS 17 is still sailing her required course when she responds to a condition that allows her to finish as soon as possible; of course she

is still subject to all other applicable rules.

The definition of proper course goes on to say: A boat has no proper course before her starting signal. RRS 17 limits a boat to not sailing above her proper course under certain conditions. Since by definition, there is no proper course before a boat's starting signal; then before her starting signal RRS 17 does not limit her course. Even though RRS 17 does not apply before a boat's starting signal, all other applicable rules do. At her starting signal, a boat has a proper course, and if she is limited by RRS 17, then she must promptly sail her required course. RRS 17 kicks in at a boat's starting signal, not when she crosses the

starting line, so if subject to RRS 17, even when behind the line, she must promptly respond.

As boats jockey for starting position, it is very common for overlaps to be established before the starting signal. It is important to remember how those overlaps were established, because after the starting signal, as long as that same overlap continues, so do any limitations that RRS 17 may impose.

This concludes our discussion of Section B. In Rules Tutorial 4 we'll look at Section C.