

Appendix A- Course Descriptions

A.1 Race Course Descriptions and Diagrams:

The following provides a description of the possible race courses to be set by the R/C for the Commodores Cup Race Series. In most cases, the courses will be set such that marks are left to port. See Appendix A.2 for a discussion on the course layout and length of course legs for different sailing conditions.

For all courses, see the Sailing Instructions for possible changes to the finish line from what is drawn here.

Windward-leeward Course (WL)

This course consists of a start with a first leg to windward followed by a leeward leg back to the start/finish line. This may be repeated for multiple times to complete a race. Competitors may round either the committee boat or the pin end of the line when completing more than one lap.

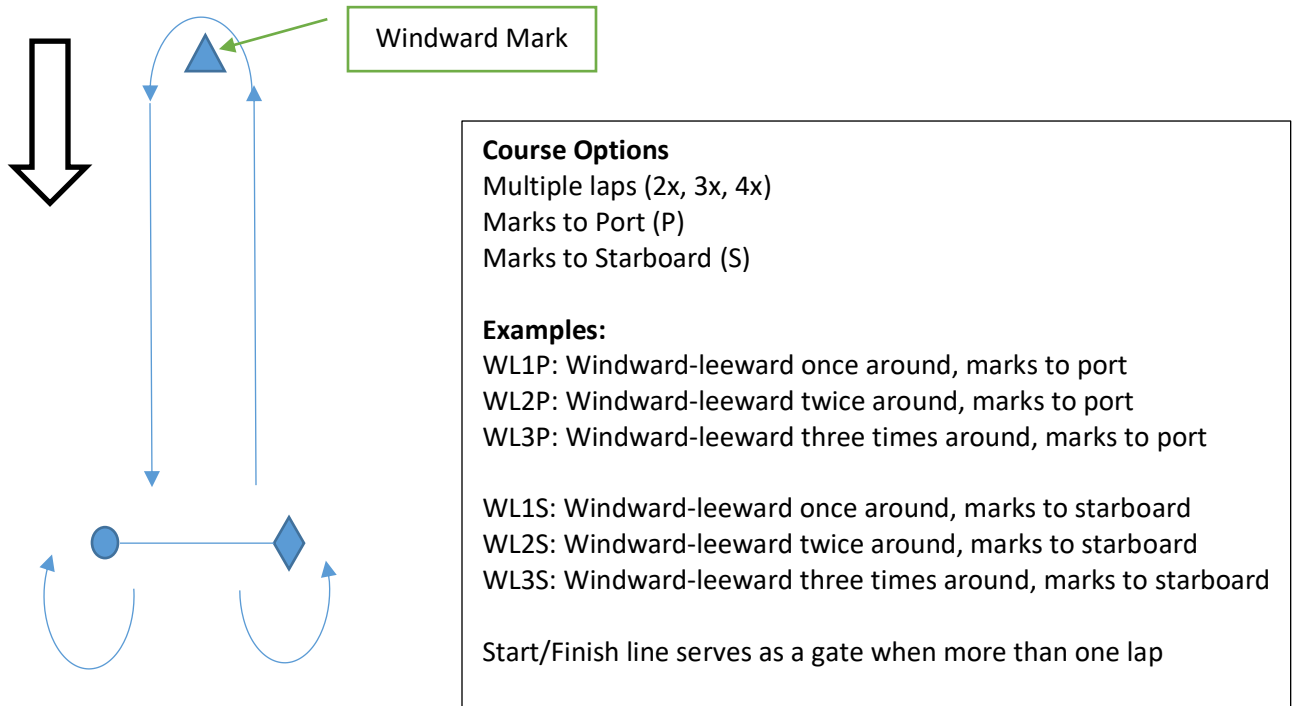


Figure 1 - Windward - Leeward Course

Triangular Course (T)

This course consists of a start with a first leg to windward followed by a reach leg to a gybe mark and a reach leg back to the start/finish line. This may be repeated for multiple times to complete a race. Competitors must round the committee boat end of the line when completing more than one lap.

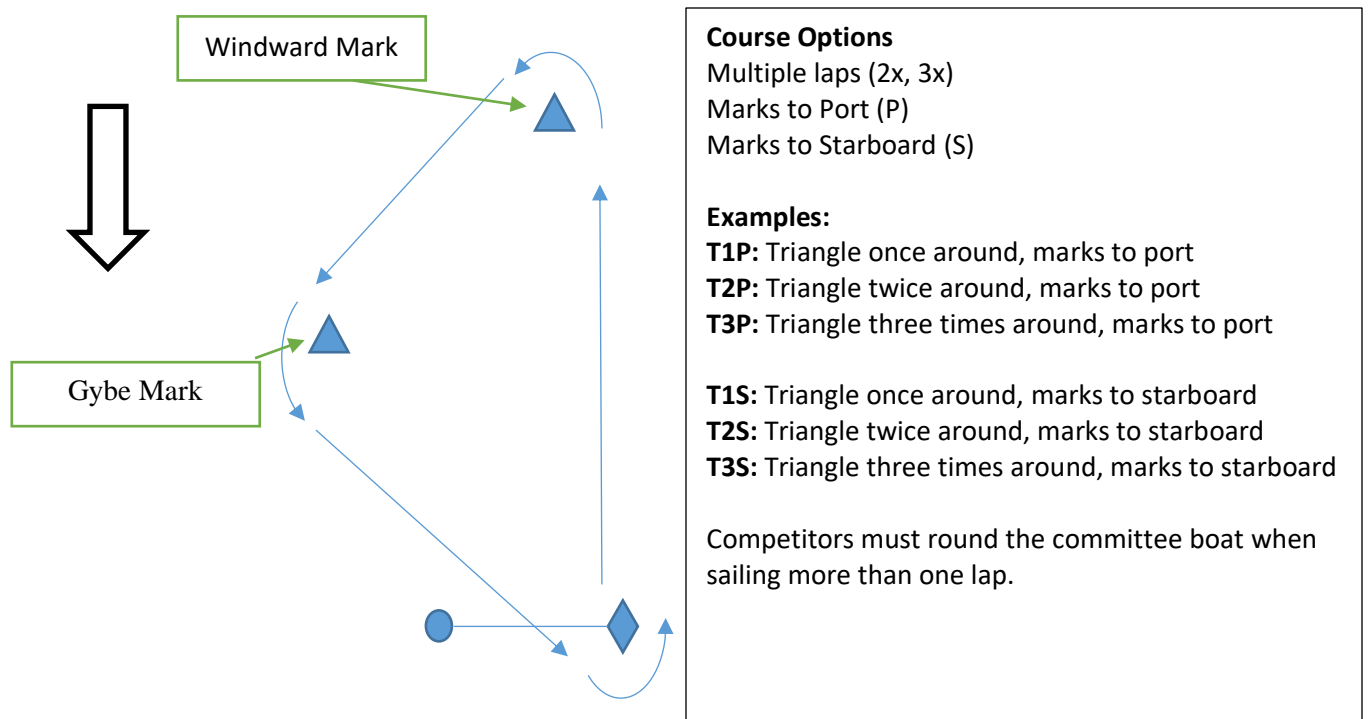
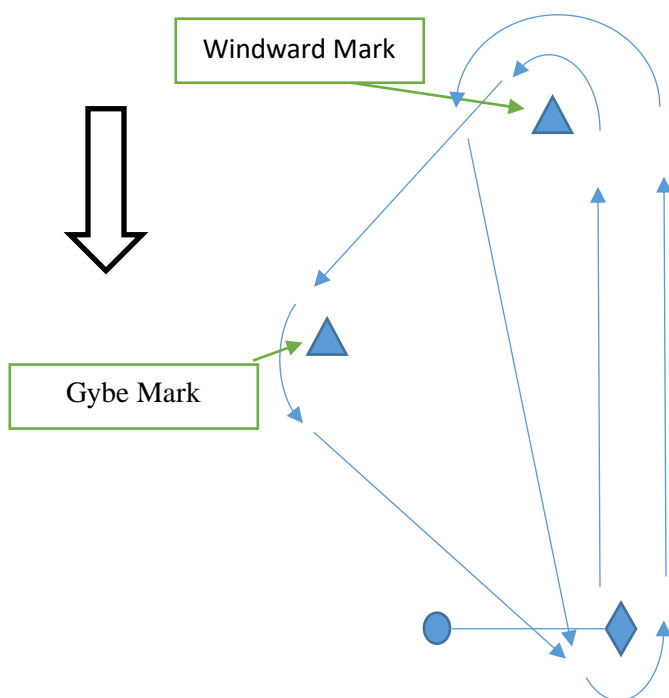


Figure 2 - Triangular Course

Triangle – Windward – Leeward Course (TWL) or Windward – Leeward – Triangle (WLT)

This course consists of a start with a first leg to windward followed by a reach leg to a gybe mark and a reach leg back to the start/finish line, followed by a windward leg and then a leeward leg. Either the triangle or windward-leeward segments may be repeated for multiple times to complete a race.

Competitors must round the committee boat end of the line when completing the triangular segments, and may treat the line as a gate if multiple windward-leeward segments are required.



Course Options

Multiple laps (2x, 3x)

Marks to Port (P)

Marks to Starboard (S)

Reaching finish – triangle last (WLT)

Examples:

T1WLP: Triangle, windward-leeward once around, marks to port

T2WLP: Triangle twice around, windward-leeward, marks to port

T3WLP: Triangle three times around, windward-leeward, marks to port

T1WL2P: Triangle once around, windward-leeward twice around, marks to port

WL2T1P: Windward-leeward twice around, triangle reaching finish, marks to port

Start/Finish line serves as a gate when sailing on a windward - leeward lap

Figure 3 – Triangle - Windward - Leeward Course

A.2 Race Course Choice and Length:

The U.S. Sailing Race Management Handbook (2009, 5th edition, online at [US Sailing](#), membership login required) has been consulted for advice on both course geometry and course length for our fleet and possible wind conditions. It is felt that objective guidance from our national organization is the best source for our race management decisions, both on and off the water. Chapter 6 of this document (pg. 151-168), titled *Course Configuration*, is the focus of our attention for course related decision-making.

From page 153, in the section "Types and numbers of reaches" it states that equilateral triangles should be used for high performance boats such as catamarans and either isosceles or irregular triangles (with one broad and one tight reach) should be used for monohulls. We will avoid the use of equilateral triangles for this reason.

On the same page the discussion on the role of downwind legs is taken to heart, especially for our disparate fleet in the HRYC Commodores Cup Series.

Runs are at least as tactical as beats. They afford an opportunity for a trailing boat to catch and pass a leading boat and to obtain right-of-way at mark roundings simply by obtaining an inside overlap near the leeward mark.

Runs are equally tactical in both light and heavy air, and in shifting and steady breezes. In light air, where reaches are less tactical, runs are far more desirable when designing courses. Probably the best light air race is a windward-leeward (twice or three times around).

The use of the leeward gate is another feature that can add to the strategy of a race, especially with the presence of a current or trend in wind shifts. We can have this feature by using the start/finish line as a leeward gate.

The handbook provides a series of tables (6.6, 6.7, 6.8) to assist in deciding the length of course and course geometry. These decisions are important for races with more than one race scheduled, or any other time constraint that may exist (such as a change in weather late in the day).

Course geometry is presented in table 6.8 where it is suggested that windward-leeward courses should be used for PHRF fleet racing in all wind speeds. The reason for this suggestion is that there is very little tactical contribution for a monohull fleet sailing on a reach leg. There is little that a boat behind can do to improve their position, unless they have a longer waterline than the boats ahead. A heterogeneous fleet sailing downwind requires that all boats must seek their best speed to the mark, a path that often requires gybing, crew work, and consideration of changes to the wind field. The handbook states that fleets are more likely to be compressed on downwind legs and stretched out on reach legs.

In the spirit of appeasing the most sailors possible, a variety of courses will be used on any day possible. The goals of the R/C are that we create races that challenge our participants, and favor those where tactics and crew work are performed well.

Race course terms:

Committee Boat: The end of the starting line marked by the Race Committee boat. Usually the starboard end of the line when facing upwind. The Committee Boat flies the flags and sounds the horns to signal the racers and records start and finish times.

Pin: The end of the starting line marked by a buoy. Usually the port end of the line when facing upwind.

Open Line: Racers can cross the start/finish line during the race. This is the case unless the Sailing Instructions say otherwise.

Closed Line: Racers are not allowed to cross the start/finish line while racing except while starting, or finishing, their race. This is sometimes called a Closed Gate.

Weather Mark (or Windward Mark): The mark buoy that is the most upwind.

Lee Mark: The mark buoy that is the most downwind.

Gybe Mark: The second mark on a triangle course, where you must gybe to stay on the course.

Windward Leg: A leg of the race where you must sail close-hauled and tack to reach the next mark.

Reaching Leg: A leg where you can sail on a reach and do not need to tack or gybe to reach the next mark.

Downwind (leeward) Leg: A leg where you must sail, more or less, straight downwind to reach the next mark and you may need to gybe one or more times.

Marks Left to Port: When you round a mark, you pass it so that the mark stays on the port (left) side of your boat. Most fleet racing courses are designed this way, particularly for the first windward mark.

Marks Left to Starboard: When you round a mark, you pass it so that the mark stays on your right side. Most match-racing courses are designed this way, particularly the America's Cup.