

Race Management 101

Valley Sailing Association

Fifth Edition
March 28, 2008
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Race Management 101

An Introductory Course in Race Committee Duty Valley Sailing Association

Original Seminar Presented on May 22, 2004

Fifth Edition

March 28, 2008

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I. INTRODUCTION

A. REASONS TO LEARN PROPER RC PROCEDURE

Required

Racers required to do RC duty

Respect

Racers invest a lot of time and money in racing

Fairness

Improperly run races are not a fair test of sailing skill

Learn To Race

Learn proper race procedures

Safety

No accidents at VSA

Fun

On a boat in the Mississippi River, watching racing, learning racing by observing

B. THIS CLASS WILL THE COVER BASICS

Enough to run Sunday, Wednesday and Cabin Boat Races

Introduction to what is needed at our major regattas

What you can expect to see at regattas at other clubs

C. DEFINITIONS

RC: Race committee

PRO: Principal Race Office

One-Design Racing: Boats of a particular class race head to head

Handicap Racing: Different types of boats race using corrected times

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D. BASIC RACE COURSE

Tests skills of Boat Handling, Strategy & Tactics

Start

- Any part of boat crosses starting line after starting signal
- Entire boat does not have to cross the line to start
- Starting sequence used because boats must keep moving

Course

- Around marks
- Marks left on one prescribed side of boat

Finish

- Any part of boat crosses finish line
- Entire boat does not have to cross the line to finish

Scoring

- One Design - Order
- Handicap - Elapsed Time

Number of Races on Sunday

- First 2 races are official
- Any other races are for fun

Skippers are encouraged to give the tiller to a crew member to train new sailors

Schedule

- Sunday races, One-Design and Handicap, warning signal at 13:30
- Sunday Cabin Boat races, Handicap, warning signal at 13:40
- Wednesday races, Handicap, warning signal at 18:00 (varies with season)

II. BASIC RC INFORMATION

A. TYPES OF RACE COURSES

Triangle (▽)

- 1 or 2 times around, not often more

Windward - Leeward (WL)

- 1 or 2 times around, not often more

Gold Cup Modified (Triangle + Windward-Leeward) (GC)

Port vs. Starboard Rounding

- Defined by which side of the boat a mark is left on
- Use Port if at all possible

Starting Line - Finish Line

- Set between Leeward and Windward Marks, closer to Leeward Mark
- Typically Start and Finish to Windward

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String Theory (Rule 28.1)

Start, Round Marks in proper order and on proper side, Finish - so that a string tracing your wake and pulled taught, passes each mark on required side and touches each rounding mark. Course errors may be corrected before finishing.

Comparison

Test skills on different points of sail

Triangle (∇)

Was most common in the past

Good speed on reaches, but difficult to pass boats on reaches

Works well in open locations

Should be set up with correct angles for spinnaker flying

Right Triangle - 45d 90d 45d

Equilateral Triangle - 60d 60d 60d

Windward - Leeward (WL)

Becoming more common

Leeward more tactical than reach

Uncomfortable in summer heat

Possible in restricted areas

Gold Cup Modified (GC)

Tests all points of sail

Longer

Need ideal location

Course Length / Number of Times Around

Time available

Area available

Wind speed

Shorter if very light or very heavy wind

Weather conditions

Pleasant, Hot, Cold, Rain

Many short legs - more tactical

Few long legs - test of boat speed

Other Options

Leeward finish (WL or GC)

Start / Finish Line set to Leeward of Leeward Mark (Leeward Finish)

Separate Start & Finish Lines

Starting Line set to Leeward of Leeward Mark

Finish Line set to Windward of Windward Mark

Offset Windward Mark

For large fleets, WL or GC

Leeward Gate

For large fleets

Fixed Marks

Course Board lists order and side of rounding

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B. IDEAL RACE COMMITTEE (According to USSA)

PRO:	In charge, assigns tasks to committee
Boat Operator:	Drives committee boat
Mark Setter:	Sets marks
Timer:	Counts down time at start
Signaler:	Signals with flags
Sounder:	Produces gun/horn sounds
Line Sighter:	Sights line at start and finish
Recorder:	Records boats starting and finishing
Wind Reader:	Notes wind direction and speed
Scorer:	Tabulates scores
Safety Boat Driver:	Drives Safety Boat

We rarely have that many people for Sunday / Wednesday Races
Each person must do multiple tasks

III. PROCEDURES

A. PREPARATION

Check Equipment

- Gas on Committee Boat
- Marks inflated, anchor lines secure

Load Equipment on to Committee Boat

- Marks
- RC Equipment

Check Flags

- Hoist Orange Flag to top of Mast; Check for Orange Flag on Starting Pin
- Check that other flags are ready

Check Safety Equipment

- PFDs
- Fire Extinguisher
- Anchor

Cast Off

Harbor Warning

- When leaving mouth of harbor, Hoist Blue Flag, 1 Long Horn Sound
- Approximately 30 minutes before starting sequence begins

Timing

- Leave the harbor in time to set the course and have the first race warning signal on time
- Set the course after the Harbor Warning if you are experienced and can do it, or
- Set the (partial) course and come back to give the Harbor Warning, if you need more time

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B. SETTING THE COURSE

Check Wind

Best in middle of river for correct wind reading

Use Orange Flag, Blue Flag, hand held flag and Telltales to judge the wind

Wind Direction

Fairly Constant

Oscillating: Shifts back and forth

Persistent Shift: Shifts in one direction

Speed

Check River Conditions

Depth

Waves

Traffic

Design Best Possible Course

For the wind, water and weather conditions

Avoid tight reaches for spinnaker boats

For the commercial traffic conditions

For the available time

Minimum 2 races

Set Marks

Proper Mark setting technique

Driver motors upwind to location of mark

Be ready to kill motor if crew falls in

Mark Setter moves mark to foredeck, clears line, holds anchor

Move slowly upwind from spot to allow for scope of anchor line

As boat slows to stop, mark setter on foredeck lowers anchor

Check depth as anchor line hits bottom

Adjust length of anchor lines for proper scope for the depth

Too long and it can snag centerboards / rudders / keels

Too short and it will not hold

If water is too deep for proper scope, move in to shallower water

If water is too shallow for length of line, tie it shorter

Feed out line as boat begins to drift downwind

Power in reverse if current is preventing proper drift of boat

Throw mark in

Power away from mark and line (reverse best to start with)

Verify anchor is holding

Leeward

Use landmarks viewed from middle of course

Windward

Directly upwind from leeward, use landmarks, check at mid river

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Gybe

Go to point halfway between windward and leeward

Turn 90 degrees

Motor until proper triangle shape is formed

Starting Pin

Upwind of Leeward Mark, 1/4 - 1/3 of the way from Leeward to Windward Marks

Anchor Committee Boat

Starting / Finish Line is a line between the Starting Pin and Committee Boat Mast

Orange Flags should be on mast and pin, and should always stay there

Starting line ideal length 1 to 1 1/2 times the total length of boats starting together

If only a few boats, Line should be 5 - 8 boat lengths minimum

Longer Line if conditions of wind and current warrant

Starting against current, or if there is a strong cross current

Drop anchor line upwind of location you want committee boat at

Drift back and cleat anchor line

Square starting line by adjusting anchor line

Watch as boats check line to see if it is square, adjust if necessary

Monitor Wind Direction

Reset Marks

Only if really necessary

Don't waste too much time, we're here to race

C. PRIOR TO THE START

Double Check that Flags are hoisted

Orange should always be on Mast (Defines Start / Finish Line)

Blue (denotes that RC is On-Station at Finish Line)

Fill out Score Sheet

Date

Name of PRO and Race Committee

Wind Velocity & Direction

Time of First Start

Important for handicap racing or if wind might die before races are complete

Post Course on Course Board

Course may change until Warning Signal, at which time it is Official

First symbol: Course Type (∇ , WL, GC)

Second Symbol: Number of times around the Course

Third Symbol: Side on which the Marks are to be left (P = Port, S = Starboard)

Fourth Symbol: Approximate location of the Windward Mark within the Race Area

(Refer to Attachment A for Letter Designations of the zones in the Race Area)

Decide if Personal Buoyancy Devices will be required to be worn

Hoist "Y" Flag

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Record All the Boats Sailing in Area of Starting Line

List by class, sail number and skipper's name

Boats who intend to race should sail by stern of RC boat, on starboard tack, and hail their sail number to RC before starting sequence begins

Late Boats

Wait for boats if they are held up

Barge, Dying wind

Our races are 'informal', so be tolerant

Do not wait for very late boats

Boats in harbor making repairs

Boats who are out cruising

Boats who clearly are being inconsiderate

Boats are responsible for being on time

D. STARTING

Procedures

Flags are the Official Signals

Horns are to draw attention to Flags

Example for 2 person RC during starting sequence

PRO: Timer, Sounder, Line Sighter

Crew: Signaler

No verbal communication with racers

Flags are the official signals, visible to all racers

Verbal communications can be protested

Our races are informal, so OK to help inexperienced sailors between races

Starting Sequence Using VSA flags

Our Multi-Class Warning Flag is White

Our 6 minute signal is a Courtesy Signal to get the attention of the boats, it is Not Official

<u>Flag Signal</u>	<u>Sound</u>	<u>Time To Start</u>	<u>Meaning</u>
Blue Down	1 Long Horn	6 +/- minutes	1 Minute to Warning - unofficial
White Up	1 Horn	5 minutes	Warning
'P' Flag Up	1 Horn	4 minutes	Preparatory
'P' Flag Down	1 Long Horn	1 minute	1 Minute to Start
White Down	1 Horn	0 minutes	Start

Timing

Start the Elapsed Time stopwatch, for timing Handicap Races, at the Start

Note: Racing Rules are in effect when boats are sailing in or near the racing area
Boats are Racing from the Preparatory Signal until they clear the finish area
Violations can only be protested when boats are Racing

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Multiple Starts / Signals

Sunday races with typical numbers of one-design and handicap boats

One start for all classes

White Warning Flag, no special signals

Sunday races with typical numbers of one-design and handicap boats, plus cabin boats

First Start - All One Design and Handicap classes together

Second Start - Cabin Boats

Cabin Boat Warning Flag is hoisted 5 minutes after the one-design Start

White Warning Flag, no special signals

Regattas and Sunday races with many one-design boats plus cabin boats

Separate starts for each One Design and Handicap class if many in each class, or

Separate starts for classes with many boats, the rest start together as Miscellaneous

Miscellaneous Class includes all classes without their own start

Last Start - Cabin Boats

Order of starts is usually signaled on a special sign board on the RC boat, but

It could be signaled with separate Class Flags as Warning Signals for each Class

It could be signaled by Class Flags in descending order on the Mast

It could be noted in the Sailing Instructions, or be given as a verbal instruction

Recalls

Boats with any part of boat or crew, in their normal position, over the starting line at start are "OCS" - On Course Side

Individual Recall

If a small number of identified boats are OCS

"X" Flag, with 1 Horn signal

Hail OCS Boats: Call out OCS sail numbers (megaphone)

Individual boats are responsible for determining if they started correctly

Drop "X" Flag when all OCS boats start properly, or after 4 minutes (no horn)

Score boats not starting properly as OCS

General Recall

If many boats are OCS

If several OCS Boats are unidentified

"First Substitute" Flag, with 2 Horn signals

Drop "First Substitute" Flag, with 1 Horn signal 1 minute before new Warning signal

Score boats which do not start "DNS"

Boats not starting and boats not finishing a previous race should stay out of starting area

Postpone

Because of RC Error, Barge Traffic, Major Wind Shift, Missing Mark

"AP" Flag, with 2 Horn signals

Drop "AP" Flag, with 1 Horn signal, 1 minute before new Warning signal

Hoist the Blue Flag after the Start

Blue Flag denotes that RC is On-Station at Finish Line

Hoist after all boats have started properly, or

Hoist 4 minutes after the Start if "X" Flag was flown

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Common Errors

- Understaffed RC boat, horn blown on time, flags late
 - Give priority to flags, get crew to help
- Unfamiliar with how to quickly raise/drop flags
 - Practice raising/dropping flags before the start
- Timing of flags off due to distracted RC members
 - Pay attention, avoid distractions, do not talk to boats
- Timing of flags off due to error with operation of timer
 - Buy a watch/timer, learn to use it
- Flags Raised or Dropped at an incorrect time
 - Learn the Sequence
- Race starts just as barge is entering race area
 - Postpone
 - Postpone, and restart sequence if there is an error

Official Flags according to USSA

- Standard Warning Flag: Class Flag
- Standard Preparatory flag: "P"
- Alternate Preparatory Flags:
 - "I" - Rule 30.1 'Round-an-End Rule' in effect
 - "Z" - Rule 30.2 '20% Penalty Rule' in effect
 - "Z" and "I" together - Rule 30.1 and Rule 30.2
 - Black - Rule 30.3 'Black Flag Rule' in effect

Variations on Start

- Multiple Starts with several classes in each
 - All Dinghies together, all Cats together, all Keelboats together
- Timing of Multiple Starts
 - Next warning flag hoisted as previous class starts
 - Fast, gets subsequent races going more quickly, but difficult
 - Next warning flag hoisted a fixed time after the previous class starts
 - 1 minute or 5 minutes
 - More time for RC and boats to prepare, easier, but takes more time
- Closed Start / Finish Line
 - Must be noted in Sailing Instructions if used
 - Only boats preparing to start, starting and finishing may cross the line
 - Boats crossing at other times are disqualified "DSQ"
- Different courses for different classes
 - 2 Windward Marks (different length windward legs)
 - If boats speeds vary
 - Gybe marks at different angles
 - Dinghies vs. Cats
 - Different number of times around course
 - If boats speeds vary

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E. RACING

Check the Course

Watch how boats round the course to see if it's set up correctly

Is the Starting Line perpendicular to the wind

Is Windward Leg directly upwind

Can spinnakers be flown on the Reaches

Is the Leeward Leg directly downwind

Is the Windward Mark in the wind shadow of shore

Watch for a major wind shift

Changing the Course While Boats are Racing On It

Change Direction of a Leg by Moving a Mark (if there is a major wind shift)

At mark that begins the changed leg, Display "C" Flag with Multiple Horns Sounds, and information on the new direction, (compass bearing to new mark, or; red or green flag) Before any boats get there

Shorten or Lengthen Leg by Moving a Mark (if there is a major change in wind strength)

At mark that begins the changed leg, Display "C" Flag with Multiple Horns Sounds, and '+' or '-' sign, Before any boat gets there

Shorten course (to allow more races to be sailed, if wind has become light)

Finish at a Rounding Mark, Between the Mark and any Race Committee boat

At new Finish, Display "S" Flag with 2 Horn Sounds as first boat approaches

Display Orange Flag on the boat defining the new Finish Line

Changing the Course To Prepare For The Next Race

Move a Mark after all boats have rounded it, but before they finish

If you can time it correctly

Can do without having to signal out on the course

Be sure you can get back On-Station at Finish Line in time

Abandoning the Race

Because of RC Error, Foul Weather, Lightning, Insufficient Wind, Unlikely to have finishers within Time Limit, Time Limit Exceeded, Missing Mark, Barge Traffic makes racing unfair, Sunset

"N" Flag, 3 Horn Signals

Drop "N" Flag, 1 Horn Signal, 1 minute before new Warning

Safety

Watch for capsizes, especially in heavy air

Watch for boats in the channel if the wind dies

Help if needed

Especially if they are in the channel

Flag

If the RC boat moves off-station to change the course, drop the Blue Flag

Hoist Blue Flag (RC is On-Station at Finish) after any course changes are made, and you are back in position at the Finish Line, ready to record finishes

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F. THINGS THAT CAN GO WRONG

A mark moves because the anchor slips or a boat snags it

If there is time during the race, reset it

Replace the Mark with a boat flying the “M” Flag, with Repetitive Horn Sounds

If it moves a lot and racers are affected, Abandon the race

G. FINISHING

Flags

Orange Flag on Mast (Defines Start / Finish Line) Always Stays Up

Orange Flag on Pin (Defines Start / Finish Line)

Blue Flag (RC is On-Station at Finish)

Finishing

Any part of boat or crew, in it’s normal position, crosses the line

Not necessary for the entire boat to cross fully

Signals

Horn for first boat in each class as she finishes

Hail her sail number (megaphone)

Hail ‘Mark’ for all other boats as they finish (megaphone)

Hail sail numbers (megaphone)

Note: Boats are officially Racing until they finish and leave the starting area

Time Limits

No boats round windward mark within a fixed time, the race is Abandoned (45 minutes)

No boats finish within a fixed time, the race is Abandoned (90 minutes)

Some boats do not finish within a fixed time after the first boat finishes (45 minutes)

Boats exceeding this time limit will be scored DNF

The Race Committee Committee may change this so that boats exceeding this time limit will be scored in-place or scored the number of finishers plus 1

The Race Committee Committee may further define the Time Limits

Variations on Finish

Different Start / Finish Lines

Move line upwind during race

For longer last leg or to finish the last race near the Club

Finish line should be shorter than Starting Line, 5 to 8 Boat Lengths Long

If RC is not at the line (Rescuing a boat, Leading a Barge, Moving a Mark)

Finish close aboard the pin, across a line perpendicular to the last leg, and leaving the pin on the side which the course board indicated the Marks were to be left

Boat records her own Position or Time, and reports it later to the RC

Scoring

One-Design

Record Order only, within each class, not the elapsed time

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Handicap

Record Elapsed Time from the Start

If a boat gets an 'Alphabet' Score (see 'Other Scores'), still note order or time of finish

In case the 'Alphabet' Score is later thrown out

Other ('Alphabet') Scores

DNS: Did Not Start (was in starting area, did not start)

DNC: Did Not Compete (for boats registered at a regatta who don't sail)

OCS: On Course Side

DNF: Did Not Finish

DSQ: Disqualified

RAF: Retired After Finishing

FIP: Finished in Place (with position)

Score All Boats

All boats listed on score sheet should have a score

Leave no blank scores for any boats listed on score sheet

Boats which have finished should leave the starting area

Note Protests

Racers should hail RC as soon as possible after the race, without disturbing them

Racers should fill out protest sheets and turn them in to the RC after the races

The Race Committee can file a protest if it witnesses the infraction

The RC can score a boat appropriately for not starting or finishing correctly (such as DNS, OCS or DNF), it can score a boat RAF if that boat informs the RC that it has Retired, but it cannot score a boat DSQ. Only the Protest Committee can, after a Protest Hearing

Note protest on the score sheet

If a boat is protested, still note order or time of finish

Filing a protest does not automatically give the protested boat a DSQ score

Turn Protest Sheets over to Protest Committee after the races

RC Actions Report

Explain reasons for such things as:

Abandoning a Race, Shortening Course, 'Alphabet' Scores, Protests by RC

Scoring Systems (to be done later by the Scorer)

Sunday / Wednesday Races: High Point System

Each boat gets 1 point for starting, plus

Each boat gets 1 point for each boat she beats, plus

First Place boat gets an additional 1/4 points

DNS: 0

DNC: 0

OCS: 0

DNF: 1

DSQ: 0

RAF: 0

FIP: same as their normal score

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Regattas: Low Point System

First Place	1 point
Others	Score = Finishing Position
DNS:	1 point more than the number of boats entered
DNC:	1 point more than the number of boats entered
OCS:	1 point more than the number of boats entered
DNF:	1 point more than the number of boats entered
DSQ:	1 point more than the number of boats entered
RAF:	1 point more than the number of boats entered
FIP:	same as their normal score

H. OTHER SIGNALS

Race Postponed, No More Races today	“AP” over “A” Flags, 2 Horn Signals
Race Postponed, Further Signals Ashore	“AP” over “H” Flags, 2 Horn Signals
Races Abandoned, No More Races today	“N” over “A” Flags, 3 Horn Signals
Races Abandoned, Further Signals Ashore	“N” over “H” Flags, 3 Horn Signals

I. AFTER THE RACES

Pick up all the marks

Be sure all boats are accounted for

 In the harbor

 Sailing toward the harbor

 Out for a cruise or practice

Tie the Committee Boat to the seawall

 Stow equipment which stays on the boat

 Lower all flags

Return the Committee Box to the Closet

Put the marks back in the Clubhouse, with anchor lines neatly coiled

Collect any Protest Sheets

 VSA will set up a Protest procedure

Put the score sheet in the envelope in the closet, or give it to the Scorer if he is there

IV. SPECIFICS FOR VSA

A. TOW BOAT SAFETY

The new VSA *Barge Safety Rule* is posted on our Web Site

 Become familiar with this rule

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When possible, lead the tow through the course with a Safety Boat

Lead at a distance of 1200 feet (400 yards), staying on the side from which the boats are approaching

This distance may be adjusted by the RC if the conditions so warrant

Boats crossing between Safety Boat and Tow are scored DSQ, with no appeal

In case of motor failure on the Safety Boat, stay to the side of the path of the Tow

Without Safety Boat, Racers must judge the distance

Racers are not allowed to cross in front of the Tow by less than 1200 feet (400 yards)

Boats crossing too close to the Tow are scored DSQ, with no appeal

Be ready to provide assistance if the wind dies while a boat is crossing, or if a boat capsizes or is otherwise disabled

The *Barge Safety Rule* allows boats to continue racing, under specified conditions, after accepting assistance.

Please enforce this rule!

B. SETTING COURSES ON THE RIVER

Sunday and Wednesday Races

Wednesday evening race courses are often set fairly short, due to sunset

Sunday race courses should be as long as practical, do not set unnecessarily short courses

Channel

No marks in the channel

Keep the course out of the channel if there is a lot of commercial traffic

Shoals

Do not set marks in less than 6' of water

Wind Shadow

North wind - Keep marks away from bluffs

South wind - Keep marks away from both shores, especially in light air

Light Wind

Keep the course out of the channel if possible

Avoid setting marks down river

Heavy Air

Keep the course out of the channel if possible

Avoid setting marks down river

Strong Current

Avoid setting marks down river

Double check anchors

Longer Starting line if starting upriver or across river

Shifting Wind

Oscillating Wind

Try to set windward mark at average wind direction

Persistent Shift

May need to reset between races

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Examples of Typical Situations

Set the best possible course for the given conditions

Look over the river and try to superimpose an ideal course

Adjust the ideal course to fit the river

C. RC EQUIPMENT

Committee Boat

Checking Gas, Mixing Oil, Changing Gas Tanks, Starting, Operation, Docking

RC Equipment

Score Sheets, Pen, Megaphone, Flags, Course Signs, Timer, Wind Gauge, Radio

D. RESOURCES

Valley Sailing Association

www.valleysailing.org

US Sailing Association

www.ussailing.org

The Racing Rules Of Sailing

www.ussailing.org/rules