

CLUB RACE OFFICER TRAINING

Training for the Leader of a Race Committee



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Welcome & Introductions


- Welcome
 - Instructors
 - John Culter, IRO, RMMCC
 - Paul Evenden – RRO, CJ
 - Attendee Introductions
 - Name, Club
 - Racing Experience
 - Race Management Experience
- Host Club Details



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Basic Principles

- **Safety**
 - Sailing is a sport - appropriate standards
 - Competitors & race management team
- **Fair sailing**
 - Everyone has an equal chance
 - Seen to be fair
- **Enjoyable experience**
 - ask for opinions
 - listen to the answers




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Regatta Management



World Sailing
Member National Authorities
Racing Rules of Sailing



Sail Canada
Provincial Sailing Associations
Prescriptions to RRS

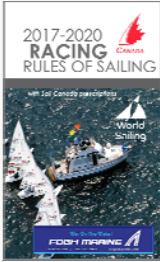


Provincial Sailing Associations
Member Clubs, Camps, Sailing Schools
Organizing Authorities

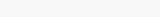


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The Rule Book - Terminology



- Definitions
- List of terms – new for 2017-2020
- Other Words - Nautical or general usage



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Regatta Organizational Chart¹



```

graph TD
    A[Organizing Authority RRS 89.1] --> B[Officials RRS 89.2 (b)]
    A --> C[Committees]
    B --> D[Principal Race Officer]
    B --> E[Chief Judge]
    C --> F[Registration and Finance]
    D --> G[Race Officer + Race Committee]
    D --> H[Race Officer + Race Committee]
    E --> I[Safety]
    F --> J[Food, etc.]
    
```



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The Regatta Chair

- Deal with invited classes
- Find committee heads
- Negotiate with the host club
- Arrange trophies and prizes
- Arrange use of the water
- Produce a Notice of Race
 - Usually will need our help

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The Race Officer directs...

- Signal boat jobs
 - Recorder
 - Timer
 - Flag officer
 - Sound officer
 - Line judge
- Specialist jobs
 - Mark layer
 - Scorer
 -
 - Safety


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The Club Race Officer

- Responsibilities:
 - Safety of competitors & RC
 - Selects & trains RC
 - Represents the RC to the Regatta Chair & Protest Committee (PC)
 - Responsible for everything that happens on one Race Course, including the Race Results (**RRS 90**)

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The Club Race Officer

- Technical knowledge
 - Training
 - Experience
 - Local knowledge
- Leadership ability
 - Self-confidence
 - Able to educate the crew
 - Appropriate personality

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BEFORE THE RACE

ON SHORE




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Official Paper

Definition of a '**Rule**':

- The Racing Rules of Sailing (**RRS**)
- World Sailing Regulations & Codes
- MNA Prescriptions
- Class Rules
- Notice of Race
- Sailing Instructions
- **ANY OTHER DOCUMENTS**

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Official Paper

- The Racing Rules of Sailing (**RRS**)
 - World Sailing
 - **RRS** revised after every Olympic Games
- World Sailing Regulations & Codes
 - **Regulations 19, 20, 21 & 22**
 - Eligibility, Advertising, Anti-Doping & Sailor Classification

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Official Paper

- MNA Prescriptions
 - Printed in large italics in Canadian RRS
 - Changes as permitted in **RRS 86**
- Class Rules
 - Information specific to class
 - Changes as permitted in **RRS 86**
- Handicap or Rating System Rules
 - PHRF, IRC, etc.

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Notice of Race^B

- **RRS 25.1, RRS 89 & RRS Appendix J1**
- Follow **RRS Appendix K** template
- Invitation to the competitors
- Responsibility of Organizing Authority (OA)
- Publication strategy
 - Now usually published on-line
 - Update as needed but date each version
 - Final version for the regatta (timing issues)
- Provide all the information that the competitor needs to know in advance

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Sailing Instructions

- **RRS 25.1, RRS 90 & RRS Appendix J2**
- **RRS 90.2** – RC 'shall' publish
- Follow **RRS Appendix L** template
- Exact details of how racing to be conducted
- Danger of revising prior SIs
- Do not be creative!

"fair sailing" = "not confusing"

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Other 'Rules'

- World Sailing Equipment Rules of Sailing (**ERS**)^B
- Safety standards
 - World Sailing Offshore Special Regulations (OSRs)
 - Canadian Coast Guard (CCG)
 - local / regional regulations

-
- Class 'guidelines'

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Jobs vs People

- RO assigns RC positions
- sometimes a couple of people do several jobs
 - timer + recorder
 - line judge + sound
- sometimes several people do a single job
 - recorders at a big finish
 - line judges at the start

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Recorders

- Manage all forms (competitors' list, etc.)
- Record the day's activities
 - time leaving dock, time of first race
 - wind speed at regular intervals
 - check-in boats against registration list
 - keep starting sequence log
 - record OCS boats, other events
 - count the boats in each start
 - record finish order & times
 - note protest & yellow flags at finish
 - compare finish order with registered boats
- Submit original records to scoring

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Recorder – Ideal Person

- Legible handwriting
- Careful, accurate
- Good with numbers

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Timer

- Confirm timing base (always GPS)
 - Discuss countdown technique (15, 10, 5..4..3..2..1..Mark!, etc.)
- Work closely with the recorders
- Be conscious of 'deadlines' to help the CRO
 - start times, time limits, target times, weather mark times, last start of the day, etc.
 - At RO 'go ahead', starts the sequence countdown ASAP at next nearest minute
 - need to make sure all other users understand the system.
 - pin boat, mark layer, judges, etc.


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Timer – Ideal Person


- Reliable, able to concentrate
- Loud voice
- Pushy, aggressive

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Flag Officer

- review the display system
 - may need to put 2 or 3 flags up/down at the same time
 - stagger flags
- have appropriate sized flags properly sorted & prepared 
- always know where 'AP' & 'X' are





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Flag Officer – Ideal Person

Reasonable upper body strength

Athletic, coordinated

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Flag Technique

- Make sure AP and X are always available
- Plan flag positions – bow to stern
 - X – 1st Sub – Warning – Prep
- Get flag X as far forward as possible
 - First Sub also
- Use stern for AP, N, others



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Sound Officer

- Access to at least two different kinds of sound 
 - Propane cannon, truck or train horn, air horn, whistle, etc.)
 - guns are not recommended
- try to use eco-friendly devices 
 - electric horns, whistles
- Aware of situations where extra sounds are made
 - X flag, First Substitute, C flag, etc.

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Sound Officer – Ideal Person

- Often done by Timer or Line Judge
 - Especially if it's just pushing a button

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Line Judge

- At the start
 - sight from the anchored pin end boat
 - has a voice recorder
 - aware of radio protocols when calling from the pin
 - just number of boats, not sail numbers
- At the finish
 - call sail numbers at finish (voice recorder)
 - work with recorders
 - need system for boats where you can't see the numbers

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Line Judge – Ideal Person

- Usually the RO
 - At the start, also someone at the pin
- Experience is the most valuable attribute

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Specialist Jobs

- Mark Layer Team
- Safety Team
- Scorer

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Mark Layer Team

- lays marks
 - starting line pin, course marks, finish line
- anchor & judge line at pin end
- take wind readings
 - at the weather mark, elsewhere
- basic requirements:
 - **Anticipate problems** – worry about what could go wrong
 - **Watch the marks** – do not leave course without permission from CRO
 - **Maintain a safety watch** - too much wind, collision between boats, other boats intruding

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Mark Layer – Ideal person

- An experienced mariner
 - ties knots
 - sets anchors
 - navigate with GPS & dead reckoning
 - handle small boats
 - uses VHF radio
 - estimates distances
 - able to steer a course
 - holds a pleasure craft operator card
 - holds a ROC (M) or equivalent

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Safety Officer[Ⓡ]

- Provide Safety at sailing regattas
- Written Safety Plan
 - Designate transfer point
 - Pre-arrange first aid space, ambulance, hospital
- Trained in on-water boat handling & boat rescue techniques
- Knowledge of first-aid
- Familiar with the type of boat on course
- 2 people per boat – inflatable preferred

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Safety Team

- Supports CRO
 - full charge of health & safety
 - not combined with other jobs (e.g. PC, press, spectator boats, etc.)
- Health on the water
 - water, adequate food
- Standard protocol for rescue
 - Rescue PEOPLE first, then boats
- Engage all boats in safety watch
 - Signal boat, mark layer, judges, coaches, other support boats

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Scorer

- **RRS 90.3 (The Race Committee shall ...)**
- Present results as quickly & accurately to competitors
- understands **RRS Appendix A**
 - break ties, score penalties
- trained in software (Sailwave SC preferred)
 - fix registrations, set drop races
- Get experience **before** the regatta
- be available until protests are decided

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Race Equipment

- Signal Boat [Ⓡ]
- Pin / Line Boat [Ⓡ]
- Mark Layer [Ⓡ]
- Finish Boat [Ⓡ]
- Safety Boat [Ⓡ]

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Personal Equipment

- Rule book
- Personal notebook
- Equipment
 - digital watch
 - hand bearing compass
 - wool for tell tales
 - laser range finder
 - digital voice recorder
 - inflator
 - whistle
 - GPS
 - duct tape
- sun screen, foul weather gear, PFD, medication, etc.

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Race Committee Meeting

- Review event ^B
 - classes invited, competition format, SIs
- Review schedule
 - volunteer check-in process
 - when do we leave the dock
 - when do we expect to return
- Goals
 - assigns positions
 - identify where training is needed
- GPS – WSG84; Magnetic; Kts; .mmm

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Competitors' Meeting ^B

- Club Race officer:
 - Introduces Race Committee & Protest Committee
 - Introduces Safety Officer
 - Identifies important locations
 - Regatta office
 - official notice board
 - Flag pole for signals ashore
 - Protest desk & office


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Competitors' Meeting (2)

- Identify signal boat, mark boat, etc.
- Describe racing area
 - Hazards to navigation
 - harbour traffic
- Wind / weather briefing
- **Do not** comment on the sailing instructions
 - written Inquiries if questions
 - post responses on the notice board


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Coaches' Meeting ^B

- Highly recommended
- Introduce Race Committee & Protest Committee
- Introduce Safety Officer
- Daily meetings to address previous day's races
- Discuss course boundaries
- Request assistance with safety
 - VHF radio

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Flags & Sounds on Shore ^B



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BEFORE THE RACE

ON THE WATER



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Canada National Sailing Federation | Fédération canadienne de la voile

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Starting the day

- Get there early
 - time before the start is the most valuable time in the regatta
- Last minute checks
 - Fuel, equipment, flags, other gear
 - Weather forecast, tides, current
 - consider postponement
 - communications gear
 - radios, cell phones, etc.
- Leave the dock
 - at least one hour before
 - first day, add another half-hour
 - Mark Layer leaves earlier

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Competition Formats ^B

- Team racing
- Match racing
- Fleet racing
 - Handicap / rating system racing
 - One design racing
 - Medal Race
- Radio controlled boats

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Locating the course ^B

- Area of water available for racing
- Anticipated wind strength
- Number, type & speed of boat
- Number of classes / groups on course
- Use local knowledge to set up fair race
 - shore profile
 - current, tide, water depth, obstacles
 - commercial traffic
 - government rules

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Course Types

- Windward-leeward
 - many variations
- Triangle
 - note angles between legs
- Trapezoid
 - Not recommended for club racing
- Fixed marks
 - islands
 - navigation marks

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Selecting the Course

- Why windward/leeward?
 - passing lanes up & down
 - more downwind tactical sailing
 - fewer resources required
- Why triangles?
 - what angles?
 - what fleets?
 - what wind velocities?
- Why trapezoids?
- Why fixed marks?
- Why gates?

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Windward / Leeward

Windward / leeward downwind finish
Start - 1 - 2 - 1 - Finish

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Windward / Leeward Gate

Start - 1 - 2s/2p - 1 - Finish

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Triangle Courses

Windward / leeward + reaches
Start - 1 - 3 - 1 - 2 - Finish

Triangle - twice around
Start - 1 - 2 - 3 - 1 - 2 - 3 - Finish

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Trapezoid Course

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Fixed Marks

- Islands
 - is it safe?
 - how close can they go?
- Navigation marks
 - is it legal?
 - protocol for vessel traffic lanes
 - check with other local clubs to ensure that you're not sharing a mark with them
- Club marks
 - Orient marks for prevailing winds

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Courses - Other Considerations

- Mark Layer boat resources
 - best is one boat for each mark
 - use anchored pin boat if possible
- Start/finish lines
 - 'closed' vs 'open' start/finish lines
 - separate start/finish boats
- Windward/leeward congestion
 - gates at the bottom
 - offset spacer mark at the top

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Mark Rounding - PORT

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Mark Rounding - STARBOARD

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Setting up for the race

- Anchor signal boat
- Remove all flags – club burgees, etc. & RC flag (once on station)
- Flag L Flag Y
- Determine wind readings
- Set start line
- Set leeward mark
- Have mark layer 'ping' start area & travel windward

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Anchoring the Signal Boat

- Anchor in plenty of water
- Enough rode to allow for rapid adjustment of start line
- Mark the anchor rode if possible
- Prescribed side for signal boat?

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Calculate Compass Bearings

Windward / leeward downwind finish
Start - 1 - 2 - 1 - Finish

Wind Direction 120°

- 2 - 1
- 1 - 2
- R/C – Pin
- Pin – R/C

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Calculate Compass Bearings

Wind Direction 170°


- 3 - 1
- 1 - 3
- 1 - 2
- 2 - 1
- 2 - 3
- 3 - 2
- R/C – Pin
- Pin – R/C

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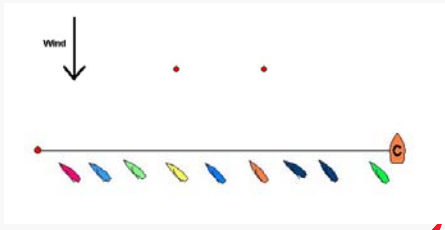
Wind Speed

- Average over a 5 minute period
- WS recommendation that races are not started in less than 4 knots of wind speed (higher if strong current present)
- WS recommendation that races are not started excess of 25 knots of wind speed
- NOTE: Upper & lower limitations do vary – check with the class


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Setting the Start Line

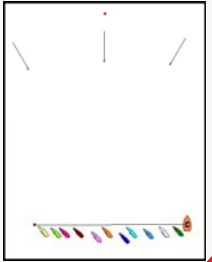


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Start Line

- Establish the wind pattern
 - Steady
 - Oscillating
 - Progressive shift
- Avoid waiting for the wind to 'settle'



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Start Line – How Long?

- **1.5 – 2.5 times** fleet length
- Depends on wind, sea conditions, competitor skill
- Use GPS or laser range finder to measure

	Light Winds	Heavy Winds
Boards	2.5	3.0
Skiffs	2.0	2.5
Dinghies	1.5	2.0
Catamarans	2.0	2.5
Keel boats	1.5	2.0


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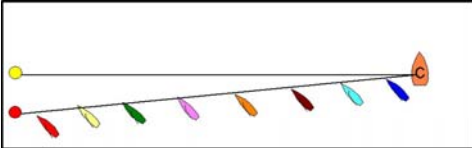
Start Line – What Angle?

- Square to the wind
 - use the wind in the starting area
- When to favour an end?
 - initial fleet reaction to start line - bunching
 - favoured course side
 - current
 - stronger wind
- Protecting the signal boat
 - **not** by adjusting the line
 - use dinghy, spacer buoy

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Bias on the Start Line



- 8 Stars or J/24s
 - 250 ft line with a 5 degree bias
 - one end will be favoured by 22 ft i.e. one boat length

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Setting the Start Line

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Setting the Start Line

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Setting the Start Line

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Setting the Start Line

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Downwind Starts

- Running start: same as upwind
 - square to the wind
- If not square, over-correct
 - competitors will head for the favoured end

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Downwind Starts

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Downwind Starts

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Downwind Starts

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Reaching Starts

Point to Point Race
Line Set Square To Course

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Reaching Starts

Point to Point Race
Line Biased To Get Even Distribution

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Leeward Mark

- Leeward mark can be set:
 - immediately after the start of first class **or**
 - before the start if multi-class **or**
 - before the start if inexperienced mark layer crew
- If gates, adjust rode length to move symmetrically
 - 6 to 8 boat lengths apart
 - 100m from start line

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Windward (Weather) Mark

- RO gives bearing & distance to the windward Mark Layer
- Go to approximate Mark 1 location
 - **Do not drop** until advised by RO
- Drop mark when advised
- When does Mark 1 need to be placed?
- Monitor wind conditions every five minutes during the day
- Keep the boat upwind of the signal boat at all times

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Sailing the Weather Leg

- By the time any boat gets near a lay line, it's too late

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Target Times

Boards	45 minutes
Skiffs	25 Minutes
Dinghies	45 Minutes
Catamarans	45 Minutes
Keel Boats	55 – 75 Minutes

Factors:
 Class(es)
 Wind / Sea conditions
 Skill level
 Others?

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Determine Course Length

- Add the **distances** for each leg
- Get the **time** to sail each leg
- Add the times together
- Work out the **model** for each course

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Sailing the Weather Leg

Distance sailed for the green boat & the red boat is the same

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Calculate Course Length

Leg Factor	
Port	0.7
Starboard	0.7
Wind leg	1.4
Leeward leg	1.0
1st Loop	2.4
2nd Loop	2.4
	4.8
	$\frac{4.84}{1.4} = 3.5$

Windward / Leeward
Twice Around
Finish At Bottom

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Target Times

Windward / Leeward; Twice around;
Finish at bottom


Wind Leg	Factor	Race Length
8 mins	3.5	28 mins
10 mins	3.5	35 mins
12 mins	3.5	42 mins
15 mins	3.5	52 mins
18 mins	3.5	63 mins
20 mins	3.5	70 mins

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Target Times

Course	Factor
W/L; twice around with finish at bottom	3.5
Olympic Triangle with finish at top	4.7
Trapezoid; loop with finish at bottom	4.1

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THE START ON THE WATER




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Starting the Race

- **RRS 27.1**
– *Prior to warning* - course designated
- **RRS 27.2**
– *Prior to Preparatory* - RC may move a starting mark
- **RRS Appendix L 5.4** orange flag
– Needs to be written in the SIs


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Timing Technique


- Check the SIs for scheduled warning time
- **Timer assumes control of the start sequence**
– provides time for each action
- Call time for last 10 seconds for any action
– get acknowledgement from sound & flag officers
- At the start, call each 10 seconds in the last minute:
“50 – 40 – 30 – 20 – 10 – 9 – 8 – 7
– 6 – 5 – 4 – 3 – 2 – 1 – Mark”

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Starting Sequence

- 11:00 Laser warning   •
- 11:01 Laser preparatory   •
- 11:04 Prep removed
- 11:05 Laser start

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Starting Sequence

- 11:00 Laser warning   •
- 11:01 Laser preparatory   •
- 11:04 Prep removed
- 11:05 Laser start








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Postponement

- Before the start
 - **RRS 27.3**
 - “for any reason”
 - keep it handy
- Reasons for postponement
 - error in procedure (like timing)
 - equipment problem
 - safety issue
 - Wind shift at start









Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 


Postponement

- 11:00 Laser warning   •
- 11:01 Laser preparatory   •
- 11:04 Prep removed
- 11:04:33 AP up 
- 11:10 AP removed
- 11:11 Laser warning   •







Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 


Postponement

- 11:00 Laser warning   •
- 11:01 Laser preparatory   •
- 11:04 Prep removed
- 11:04:33 AP up   •
- 11:10 AP removed
- 11:11 Laser warning   •


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Postponement


- 11:00 Laser warning   •
- 11:01 Laser preparatory
- 11:04 Prep removed
- 11:04:33 AP up   •
- 11:10 AP removed
- 11:11 Laser warning   •

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Postponement Variations



AP over H
**further
signals
ashore**




AP over A
**no more
racing
today**

Consider H & A carefully

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Calling the Line



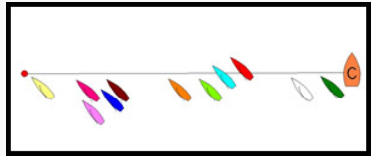
Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 99 CANADA

Individual Recall

- **RRS 29.1**
- “the race committee shall *promptly* display. . . .”
 - within **4** seconds or less
 - X flag must be ready
- Must identify the OCS boats
- Different sound for X
- Display until all OCS boats exonerate **or** 4 minutes – whichever is earlier

Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 100 CANADA





Individual Recall



two OCS boats






Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 101 CANADA

Individual Recall

11:00 Laser warning	  •
11:01 Laser preparatory	  •
11:04 Prep removed	
11:05 Laser start	
11:05:03 X flag displayed	

Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 102 CANADA

Individual Recall


11:00 Laser warning	  •
11:01 Laser preparatory	  •
11:04 Prep removed	  •
11:05 Laser start	
11:05:03 X flag displayed	

? All boats cleared **or** 4 minutes

Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 103 CANADA


Individual Recall

- Keep watch for boats returning
 - flag officer, sound officer, line judge
- Hailing OCS boats
 - fair sailing is our guide
 - Hail vs no hail
 - VHF radio is fair, voice may not be
 - Confident of sail numbers of OCS boats
- line boat radios number of OCS boats and number they can identify – *not sail numbers*

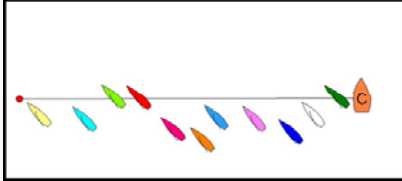
Sail Canada | Voile Canada
Version January 1, 2017 Version 16.01
104 

General Recall


- **RRS 29.2**
 - Unable to identify OCS boats; or
 - Error in starting procedure
- **Be sure** start line square to wind before continuing with next sequence
- Minimize General Recalls
- Okay to use 1st Sub after Flag X but this is to be avoided

Sail Canada | Voile Canada
Version January 1, 2017 Version 16.01
105 


General Recall




Hard to spot red boat

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Version January 1, 2017 Version 16.01
106 

General Recall

11:00 Laser warning 

11:01 Laser preparatory 


11:04 Prep removed

11:05 Laser start


11:05:15 1st Sub displayed


11:08 1st Sub removed


11:09 Laser warning

Sail Canada | Voile Canada
Version January 1, 2017 Version 16.01
107 

General Recall

11:00 Laser warning 

11:01 Laser preparatory 


11:04 Prep removed 

11:05 Laser start

11:05:15 1st Sub displayed

11:08 1st Sub removed


11:09 Laser warning


Sail Canada | Voile Canada
Version January 1, 2017 Version 16.01
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General Recall

11:00 Laser warning

11:01 Laser preparatory


11:04 Prep removed 

11:05 Laser start 

11:05:15 1st Sub displayed


11:08 1st Sub removed

11:09 Laser warning

Sail Canada | Voile Canada
Version January 1, 2017 Version 16.01
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U Flag


- **RRS 30.3**
- In effect last minute prior to start
- Triangle formed by start marks & windward mark
- No 'X' flag & score UFD
- No UFD if race restarted, re-sailed, postponed or abandoned before start

Sail Canada | Voile Canada  119

Starting with the U Flag

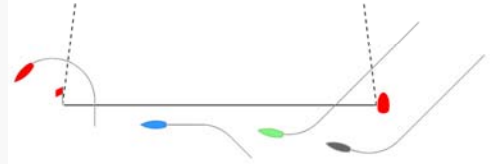
45 seconds to start




Sail Canada | Voile Canada  121

Starting with the U Flag

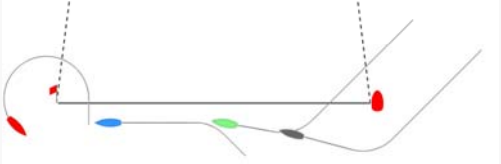
30 seconds to start




Sail Canada | Voile Canada  122

Starting with the U Flag


15 seconds to start




Sail Canada | Voile Canada  123


Starting with the U Flag


Start!




Sail Canada | Voile Canada  124

Starting with the U Flag

Who is UFD? 



Sail Canada | Voile Canada  125

Black Flag Starts

- RRS 30.4

Purpose:
to reduce the size of the fleet
Usually followed by a General Recall with boats excluded from the restart.

Otherwise:
Use Flag U

Not recommended for club events

Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 126 CANADA


Black Flag Starts

- RRS 30.4
- In effect last minute prior to start
- Triangle formed by start marks & windward mark
- No 'X' flag & score BFD
- BFD in effect if restarted, re-sailed but not if postponed or abandoned before start
- If general recall or abandoned after start, post numbers before next warning
- Photograph posted board with numbers

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Starting with the Black Flag


45 seconds to start



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Starting with the Black Flag

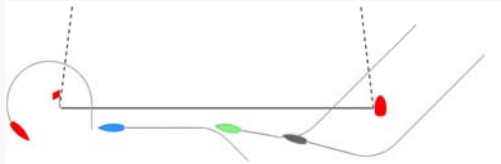
30 seconds to start



Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 131 CANADA

Starting with the Black Flag

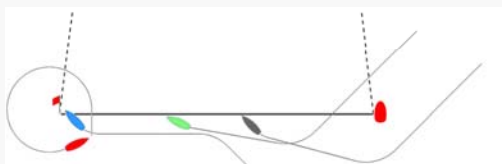
15 seconds to start



Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 132 CANADA

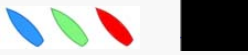
Starting with the Black Flag

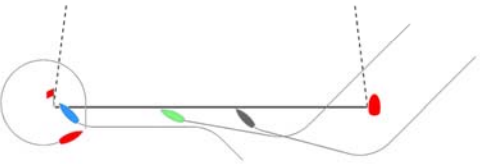
Start!




Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 133 CANADA

Starting with the Black Flag

Who is BFD? 




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Version January 1, 2017 Version 16.01

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Flags O and R

- **RRS Appendix P5**
- Rule 42: Pumping, rocking, ooching
- Flag O: permits actions when wind exceeds class limits.
- Flag R: removes permission for actions when wind is less than class limits.


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Flags O and R


- **RRS Appendix P5**
 - Use 'O' prior to warning signal
 - Use 'O' & 'R' at a mark
- Repetitive sounds
- Use is dictated by class rules (29er class, 49er plus others)
- Inform on-the-water judges of changes

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DURING THE RACE

ON THE WATER




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Course Management

- Safety
- Time limits
- Target time
- Schedule of races
- Maintaining the course
- Wind speed
- Moving mark


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Safety

- **Rule 4** – Decision to Race
- Consider:
 - Collapse of wind
 - Increase in wind speed
 - Outside temperature
 - Heavy sea
 - Visibility
 - Lightning
 - Squalls
 - Freighters, ferries, commercial traffic


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Time Limits

- **Rule 35**
- Specified in Sailing instructions
 - Time to windward mark
 - Time for first boat to finish
 - Time for other boats to finish within


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Maintaining the Course

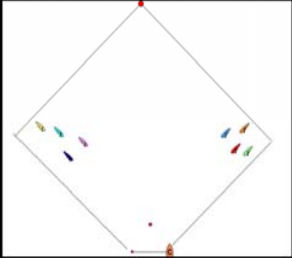
- Weather mark directly upwind
- Leeward mark directly downwind
- Wind direction
 - Oscillation vs Permanent shift?
- Keep the course diamond wide

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Weather Mark

A wide course diamond

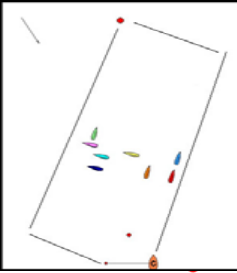


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Weather Mark


- Wind shifts to the left
- boats have less room to pass



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Changing the Course



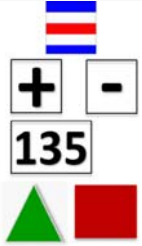
- **Rule 33**
 - “changing the next leg of the course”
- Flag C + multiple sound signals
- Must be signaled before a boat begins the leg being changed

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Changing the Course

- Change length
 - plus/minus boards
- Change Direction
 - post compass bearing and/or
 - red/green flags / boards



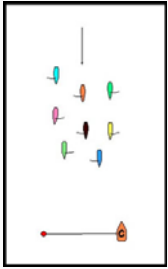
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Changing the Course

A good test of weather mark location


See if boats are on both gybes on the downwind leg



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Shortening the Course

- **Rule 32.1**
 - Foul weather
 - Insufficient wind
 - Mark missing
 - For any other reason affecting fairness & safety
- OR*
- To permit other scheduled races to be sailed

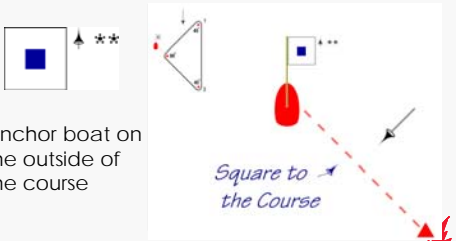
Sail Canada | Voile Canada Version January 1, 2017 Version 16.01 149 

Shortening the Course

- **Rule 32.2**
 - At a rounding mark
 - At a gate
- What notice do we give the competitors?
 - none – just get the boat to the mark
- Where is finishing line?
 - see RRS 32.2


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Shortening the Course - Rounding Mark

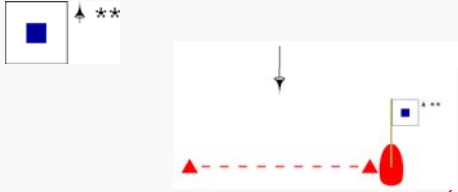



Anchor boat on the outside of the course

Square to the Course

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Shortening the Course - Gate



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Missing Mark

- **RRS 34** – Mark is missing or out of place:
 - replace in correct position or with a similar mark
 - replace displaying Flag M with repetitive sounds
- Fairness to all competitors
 - don't try to replace it when boats are coming toward it
 - tow it off to the side of course
 - hide mark from sight of competitors



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Abandon


- RRS 32
- Why abandon? **RRS 32.1**
 - Error in starting procedure
 - Foul weather - safety
 - Mark missing
 - For any other reason affecting safety or fairness
- What if there are finishers?


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Abandon N over H





Race Signals
 “All races are *abandoned*. Further signals ashore.”




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Abandon N over A



Race Signals
 “All races are *abandoned*.”

No more racing **today.**”



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THE FINISH

ON THE WATER




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Version January 1, 2017 Version 16.01

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Finishing Line

- Short as possible
 - 50 metres – dinghies
 - 70 metres – skiff/boards
 - 0.25 x length of the start line - keelboats
- Line angle
 - Square to the wind
 - Or set square to the course from the last mark
- Set before first boat begins final leg

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Finishing Line

- Prescribed side for finish boat?
- Cross finish line completely?
- Blue flag at finish?
- Sound at finish?

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Recording the Finish

- Check that sail number is unique
- May have more than one team
 - line judge, two recorders per team
 - one team could be on pin boat
- Record in finish order – don't separate classes
 - scoring software will split classes
- Record every time a boat finishes
- Record all boats – even OCS, UFD, BFD

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Recording the Finish

- Record time of first finisher & last finisher, even for one design
- For handicap / rating system racing, use time of day for finishes
 - Line sight calls boat – 'MARK'
 - Timer gives recorders 'hour, minute & seconds' at the 'MARK' call
- Watch for red protest flags
- Watch for yellow flags

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Issues at the Finish

- Finishing upwind
 - Sail numbers of boats are usually easy to read. But be prepared...
- Finishing downwind:
 - Make sure the team can read the sail numbers
 - Reaching finish preferred sometimes





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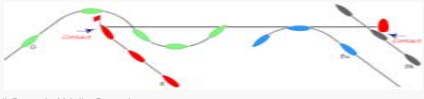
Issues at the Finish


- If you can't see a number, use another identifier
 - Near boat, middle boat, far boat...
- Say 'BLANK' so recorder leaves a space
 - Then catch up after the boat finishes

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Finishes


	Score	Other Action
	Yes	Protest 28.1
	Yes	Protest 31
	Yes	None required
	Yes	Protest 31



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Forms^u at the Finish

- Account for all starters (SAFETY)
- Penalty flags marked
- Red or yellow flags recorded
- **Results to scorer ASAP**
 - Send as a photo from a smart phone
 - Send paper copy to shore

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AFTER THE RACE

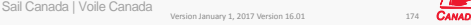
ON SHORE



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Back on Shore

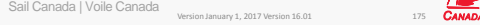
- Post protest time – Check SIs
- **Ensure preliminary results posted immediately**
- Arrange scoring inquiry forms



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Back on Shore


- In the case of OCSs, UFDs, BFDs, be available for boats to listen to your recordings
- Collect all original forms (timer log, line boat, mark rounding, etc.) & bring to office



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What Should RC Protest?


- Failing to sail the course– **RRS 28**
- touching a start or finish mark



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What NOT to Protest


- boat vs boat incidents?
- touching a mark?
- possible **RRS 42** infractions?
- Why not?
 - usually very hard to see unless close



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Request for Redress

- **RRS 62.1 (a)**
- A boat can object to
 - an improper action or omission of the RC
 - Or the organizing authority
- Request for redress requirements
 - Within protest time limit
 - written protest



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Usual Requests for Redress by a boat:

- Watch out for
 - marks not in the water on time
 - moving / missing marks
 - starting errors
- Should not include OCS calls

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Debrief

- Review the day with the team
 - equipment problems
 - suggestions for tomorrow
 - gas up the boats
 - confirm team members for next day
- Don't leave until
 - scoring is completed & posted
 - protest time has ended

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Before you leave for the day

Thank your team!

Stay in touch. Develop a team.

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Review & Open RRS Quiz

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Review questions

1. The SI's specify that boats shall check in at the signal boat before each start. A boat fails to do so. What do you record? How do you score them?
2. A starting area is specified in the SI's and is closed to classes not starting. A boat enters the area. What do you record? How do you score them?

Sail Canada / Voile Canada

2c-186

February 2016

1.60



Review questions

3. The RC loses time on all watches during the starting sequence. Action?
4. At the Warning signal the 'P' flag is hoisted instead of the class flag. Action?

Sail Canada / Voile Canada

2c-187

February 2016

1.60



Review questions



5. The mark set boat loses power before the pin can be set. Warning Signal time is close. Action?
6. The weather mark is not in the water fifteen seconds before the start for race 3. Action?
7. A 90° wind shift comes three minutes before the start. Actions?

Sail Canada / Voile Canada 2c-188 February 2016 1.60

Review questions



8. A 10° wind shift comes three minutes before the start. Actions?
9. The horn fails to sound at the start. Actions?
10. The Starting Signal is made ten seconds early. All boats start properly at this signal. Action?
 - A second class is scheduled to start five minutes after the first. How to time it?

Sail Canada / Voile Canada 2c-189 February 2016 1.60

Review questions



11. Four boats are registered for non-spinnaker, twenty for spinnaker class. The latter have the first start but all non-spinnaker boats start with them despite the SI's, for two starts. Actions?
12. In a major centerboard regatta there have been two general recalls and more seem likely. Action?

Sail Canada / Voile Canada 2c-190 February 2016 1.60

Review questions



13. At a start four boats are identified as OCS but more are probably guilty also. You have not hoisted "X" immediately, pondering a General Recall. Thirty boats are starting. Action?
14. An OCS boat does not return to make a proper start. Flag "X" was displayed with one sound signal right after the start. Actions?

Sail Canada / Voile Canada 2c-191 February 2016 1.60

Review questions



15. A General Recall has been signaled, then the flag removed with one sound signal. In one minute what signal is made?
16. When the boats in one class are halfway up the first weather leg, the wind shifts 80° to the right. Action?

Sail Canada / Voile Canada 2c-192 February 2016 1.60

Review questions



17. In a catamaran race, the boats are sailing twice around a 60° triangle. The wind shifts 40° before they come to mark 3. Action?
18. A storm with lightning and thunder is observed nearby during racing. Action?

Sail Canada / Voile Canada 2c-193 February 2016 1.60

Review questions



19. Two races are scheduled Saturday and one Sunday. After one slow race on Saturday, the wind dies completely with no possibility of a start for race 2. Action?
20. A boat sails through a finishing line during the race. The SIs say "boats must not sail through the finishing line unless finishing." Record how? Score how?

Sail Canada / Voile Canada 2c-194 February 2016 1.60

Review questions



21. RC observes contact between two boats, neither of which protests or takes an alternative penalty. RC action?
22. In a dying wind, the RC wants to shorten course. All boats are on the third leg of a five leg course and probably cannot make the finish. Action?

Sail Canada / Voile Canada 2c-195 February 2016 1.60

Review questions



23. After the finish line has been set and boats have started to finish, there is a 40° wind shift. Action?
24. Before the start, the weather mark is punctured and deflated after being placed for the first race. An alternate mark is available, but is specified in the SIs for use with a Change of Course. Action?

Sail Canada / Voile Canada 2c-196 February 2016 1.60

Review questions



25. Weather in the open water is becoming dangerous, and you want to get the boats into a sheltered bay for the next race. Action?
26. RC observes regular pumping of the sails by a small boat. Actions?

Sail Canada / Voile Canada 2c-197 February 2016 1.60

Review questions



27. RC observes a boat that apparently fouled another putting up a yellow flag for a 20% penalty. Flag is not seen when the boat finishes. Action?
28. There is no wind to sail on at 1300, but you expect some two hours later. How do you tell the boats to re-assemble for a start at 1500? Action?

Sail Canada / Voile Canada 2c-198 February 2016 1.60

Review questions



29. In a centerboard race, half the fleet is becalmed while the other picks up breeze and approaches the finish. Action?
30. A Modified Olympic course is being sailed around a circle of buoys, all alike except for dim letters on cylinders. The lead boat rounds the wrong weather mark, unwittingly following a shift in the wind. All other boats follow and complete the whole course. What do you do as they approach the finish? What do you do next?

Sail Canada / Voile Canada 2c-199 February 2016 1.60

Review questions

31. The coloured line flag on the RC boat is lost. The SIs call for a finish between that flag and a nearby mark. Action?

Sail Canada / Voile Canada 2c-200 February 2016 1.60

Review questions

32. It is the last race of the day for small one-design classes. Darkness is setting in, the wind has died completely, and five boats who haven't finished are still on the last leg of the course. There are no running lights on the committee boat or on the competitors' boats. The RC offers to award these five boats their position in which they rounded the last rounding mark before the finish, but all refuse to accept. Action?

Sail Canada / Voile Canada 2c-201 February 2016 1.60

Review questions

33. A sudden squall hits the RC signal boat just as the RO is trying to secure the horn. Both go overboard, taking the one watch for a PHRF race in progress. The squall causes the signal boat to drag anchor badly. The motor on the signal boat will not start. The lead boat is approaching the finish only 100 yards off. Action?

Sail Canada / Voile Canada 2c-202 February 2016 1.60

SC Certification Program

- **Five levels**
 - Assistant Race Officer (ARO)
 - Club Race Officer (CRO)
 - Regional Race Officer (RRO)
 - National Race Officer (NRO)
 - International Race Officer (IRO)

Certification as Club Race Officer

- Attend this course
- Practical experience

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Professional Development

- **SAIL CANADA**
 - Advanced Race Management
 - Assistant Race Officer
 - Mark Layer
 - Club Judge
 - Regatta Safety course
- **OTHERS**
 - First aid
 - PCOC
 - VHF
 - Weather

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CONTACTS

World Sailing:
www.sailing.org

Sail Canada:
www.sailing.ca

Provincial Sailing Association:
www.bcsailing.bc.ca

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Instructors

- John Culter – jrculter@gmail.com
- Paul Evenden – pevenden@telus.net

THANK YOU!!!

Race Management Resources:
www.rvan.ca/RM

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