



DCYC Race Committee Training

March 1, 2014

Agenda

1. Checklist: Pre-Race Preparations

- a. RC bag, notebook, flags, anchors, marks, chain weights, watch, VHF
- b. Water, sunscreen, snack, chair

2. Checklist: On-the-Water Objectives

3. Wind Forecasting Tools

- a. Sailflow, NOAA, WindAlert, RealWind

4. Go/No Go Calculator

5. Mark Location / Distances Chart

6. Course Diagrams

- a. Course board
- b. Permanent & temporary marks

7. DCYC Race Marks / Anchor Lines

8. Setting a Starting Line

- a. Square to wind
- b. Transits
- c. Anchoring the Cmte Boat

9. Right Angle Chart (+/- 90)

10. Reciprocal Angle Chart (+/- 180)

11. DCYC Committee Boat Tips

- a. Starting instructions
- b. Windlass & anchor instructions
- c. Warning colors on anchor chain
- d. Coordinate with Caretaker (fuel, etc.)
- e. Horn blast when leave harbor

13. Check-In / Scoring Sheet

15. Starting Sequence – Sounds & Flags

- a. 5-minute timing, flags, sounds
- b. Postpone, recall, abandonment
- c. Rolling starts

16. Other RC Signals

- a. Flags are *official*
- b. Sounds are only a courtesy

17. Regatta Pro Start Automatic Horn

- a. Power check
- b. Starting, stopping, manual use
- c. Resetting after last start (IMPORTANT)

18. Managing & Monitoring the Race

- a. Weather, safety
- b. Time to round first mark
- c. Estimating course changes

19. Finishing the Race

20. Lake Lewisville Toll Bridge Clearances

21. Abandoning & Postponing a Race

- a. Postpone before a start
- b. Abandon after a start

23. RRS – Conduct of a Race

- a. Needs update to 2013-2016
- b. Still OK to use

27. RRS – Definitions

29. RRS – Scoring

31. Notice of Race (NOR)

33. Sailing Instructions (SIs)

- a. Changes and use of Notice Board
- b. Snag Mark for low water conditions
- c. Time limits
- d. Protests

Returning to Harbor

- a. Gear / mark collection
- b. Horn blast / docking



Club Racing Checklist – Pre-Race Preps

On Shore Preps

- Weather & wind forecast
- Sunscreen / hat / sunglasses
- Foul weather gear if needed
- Gloves (for manual anchor pulls)
- Drinks / snacks / small cooler
- Chair
- Gear bag / case
- Compass (hand bearing or puck)
- Wind stick w/ribbon or yarn
- Wind meter
- VHF Radio (charged)
- GPS / Extra batteries
- Scoring Sheet / Clipboard / Pen
- NOR / Sailing Instructions / PHRF #s
- Protest form
- Racing Rules of Sailing (RRS)
- Flag Diagram
- Mark Locations/Dist/Bearings Sheet
- Right angle & Reciprocal angle charts
- Course diagrams
- Markers & eraser for Course Board
- Binoculars
- Air Horn / Whistle / Regatta Pro-Start
- Life Jacket(s)

Flags

- Fleet Pennants
- P – Preparatory
- AP – Postpone
- X – Individual Recall
- 1st Subst – General Recall
- N – Abandon
- L – Come Within Hail
- S – Shorten Course
- C – Change Course
- Red Square/Green Triangle
- + Increase Leg / – Decrease Leg
- Orange Start/Finish Line
- Blue In-Position at Finish
- Y – Wear life jackets
- N over A – No more racing today
- N over H – Return to shore & wait

Equipment

- Marks
- Spare Mark(s)
- Mark weights (chains)
- Inflator
- Anchors
- Anchor lines (lengths)
- Boat hooks
- Course Board
- PVC flag holders

Boats

- Fuel
- Disconnect charger cords
- Battery switch on (Position 1 or 2)
- Verify radio operation
- Plug(s) in where needed
- Lower boat to cover engine water inlets
- Start and run engine briefly, early, to confirm operation
- Ensure required equipment/gear is in boat
- Secure marks by hand or other means if high wind or risk of blowing out of boat

Other

- Synch time with GPS or Atomic Clock in Clubhouse.
- Use VHF channel 69 (as general rule)
- Skipper's Meeting (when scheduled)
- Bathroom visit
- Re-confirm weather/wind
- Develop preliminary course plan

Departure

- ~ 1 hour before first warning signal
- One long horn blast as exit harbor

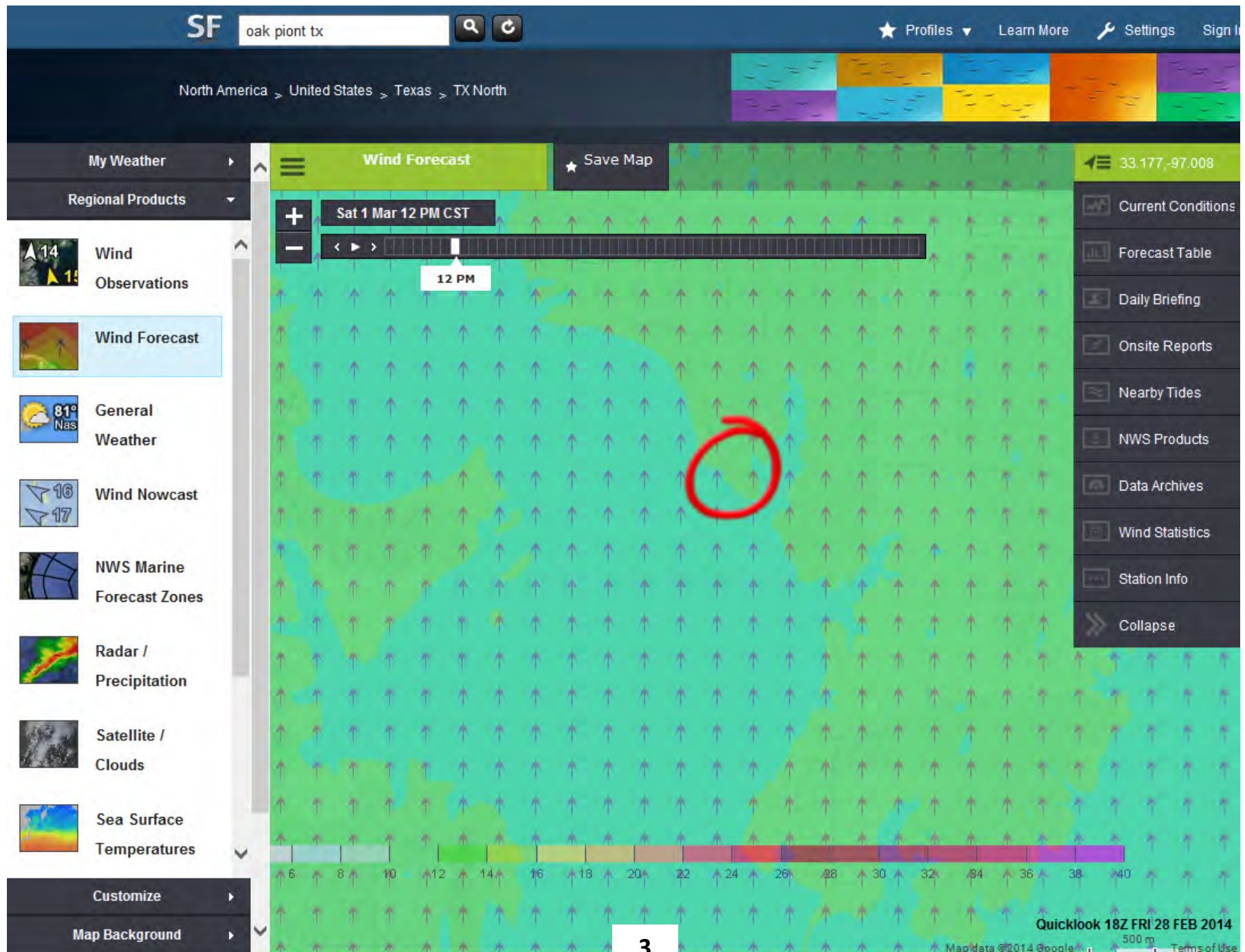
Anchor Lines
20 ft
30 ft
40 ft
50 ft

Club Racing Checklist – On the Water Objectives

- Have a fun and safe afternoon
- On Shore Preparations
 - Have everything loaded and ready to go 1-hour before the first warning signal.
 - Verify engine starts and warm it up slightly well before departure time.
- Time
 - Blow horn once when leaving and returning to the harbor
 - Start on time or as close to it as possible.
 - Don't waste time trying to set a perfect course (wind oscillates).
 - Try to configure course to enable a 1 hour race.
- Windward/Leeward Marks & Legs
 - As close to directly upwind-downwind as possible.
 - Use pre-determined distances and bearings for DCYC fixed marks.
 - Use GPS to determine distances for temporary marks .
 - Either MOB function or enter waypoint(s) for the temporary mark(s).
 - Use a short mark for Fleet 2 to allow Fleet 2 to finish closer to Fleet 1 (when appropriate)
- Start Line
 - Square to wind direction and NOT the position of the first mark.
 - Long enough to allow all boats to start safely but still include some competition.
 - At least 1.25 to 1.5 times the aggregate length of the longest class of boats.
- Paperwork
 - Log in all racers by sail number on the score sheet.
 - Note start times ... not the times the 5-minute sequence started.
 - Record the wind speed.
- Start Sequence
 - Learn to run manually prior to using Regatta Pro Start horn system.
 - Provide a courtesy warning (multiple horns) 1 minute before warning signal.
 - Schedule first warning signal for one of the 5's on the clock face (:00, :05, :15, etc.).
 - ABSOLUTELY MUST concentrate during start sequence (easy to get distracted).
- Monitoring Races
 - Note the time of the first boat to round the first windward mark for each fleet.
 - Periodically count sails, check via binoculars, or motor around the course.
- Finishing
 - Fly the blue flag when the RC boat is on station at the finish line ready to record finishers.
 - Blow a horn for the first boat of each fleet to finish.
 - Use a whistle to finish the boats following the first place boat.
 - Try to record sail numbers and the rough times (less the seconds) prior to a boat finishing to reduce the amount of writing during the actual finish.
- Communication
 - Let other RC members know what is happening

Wind Forecasts

www.sailflow.com



Go/No Go Calculator

Dallas Corinthian Yacht Club

PURSUIT SERIES 1 MAR 1





St. Patrick's Day Potluck & Member Mixer
March 15th at 6pm [Click for Reservations](#)

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[Race Management Seminar Schedule](#)
[Race Starting Clinic 20100921.pdf](#)
[Maps of Racing Marks](#)
[Location of and distance between Racing Marks](#)
[DCYC PHRF Chart](#)
[US Sailing PHRF Ratings \(reference only\)](#)
[Wind Patterns](#)
[Rush Creek Go/No Go Calculator](#)
[Fleet Captain Website Management Primer](#)

RCYC "Go/No Go" Calculator

Wind Speed (MPH): *

Air Temperature (F): *

Water Temperature (F): *

Weather Conditions: *

Total:
\$1.00

If total is between 0 and 59: **Go Sailing**

If total is between 60 and 70: **Race Committee Discretion**

If total is 71 or over: **No Sailing Today :(**

RCYC WeatherLink Information

[RCYC WeatherLink Site](#)

Click the above link to see weather conditions live from the RCYC weather station.

Clear Form

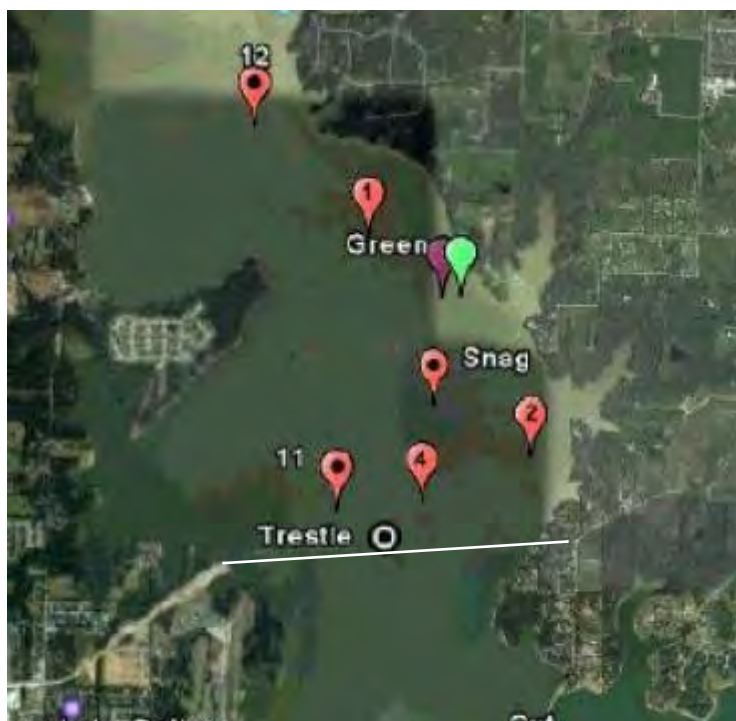
Score	Recommendation
0 – 59	Go Sailing
60– 70	Race Committee Discretion
>70	No Sailing

4

DCYC Mark Locations, Distances, Bearings – 2013

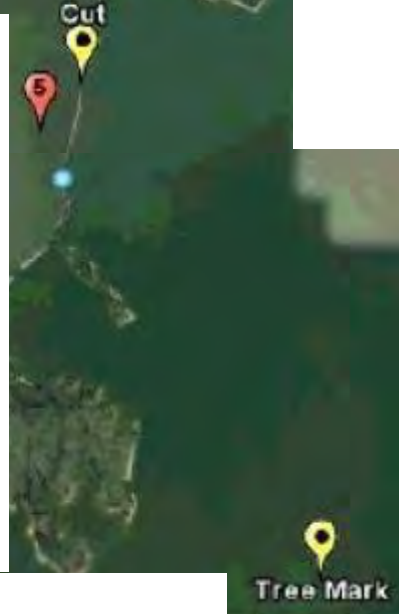
GPS Coordinates

Mark	LAT	LON
1	N 33 09.654	W 97 00.245
2	N 33 08.760	W 96 59.432
4	N 33 08.565	W 96 59.964
5	N 33 07.176	W 96 59.607
11	N 33 08.530	W 97 00.380
12	N 33 10.098	W 97 00.817
R	N 33 09.392	W 96 59.779
G	N 33 09.387	W 96 59.729
Snag	N 33 08.970	W 96 59.915
Trestle	N 33 08.382	W 97 00.189
Cut	N 33 07.376	W 96 59.404
Tree	N 33 05.328	W 96 58.198
121	N 33 05.000	W 96 56.360



Distances Between Marks (nm)

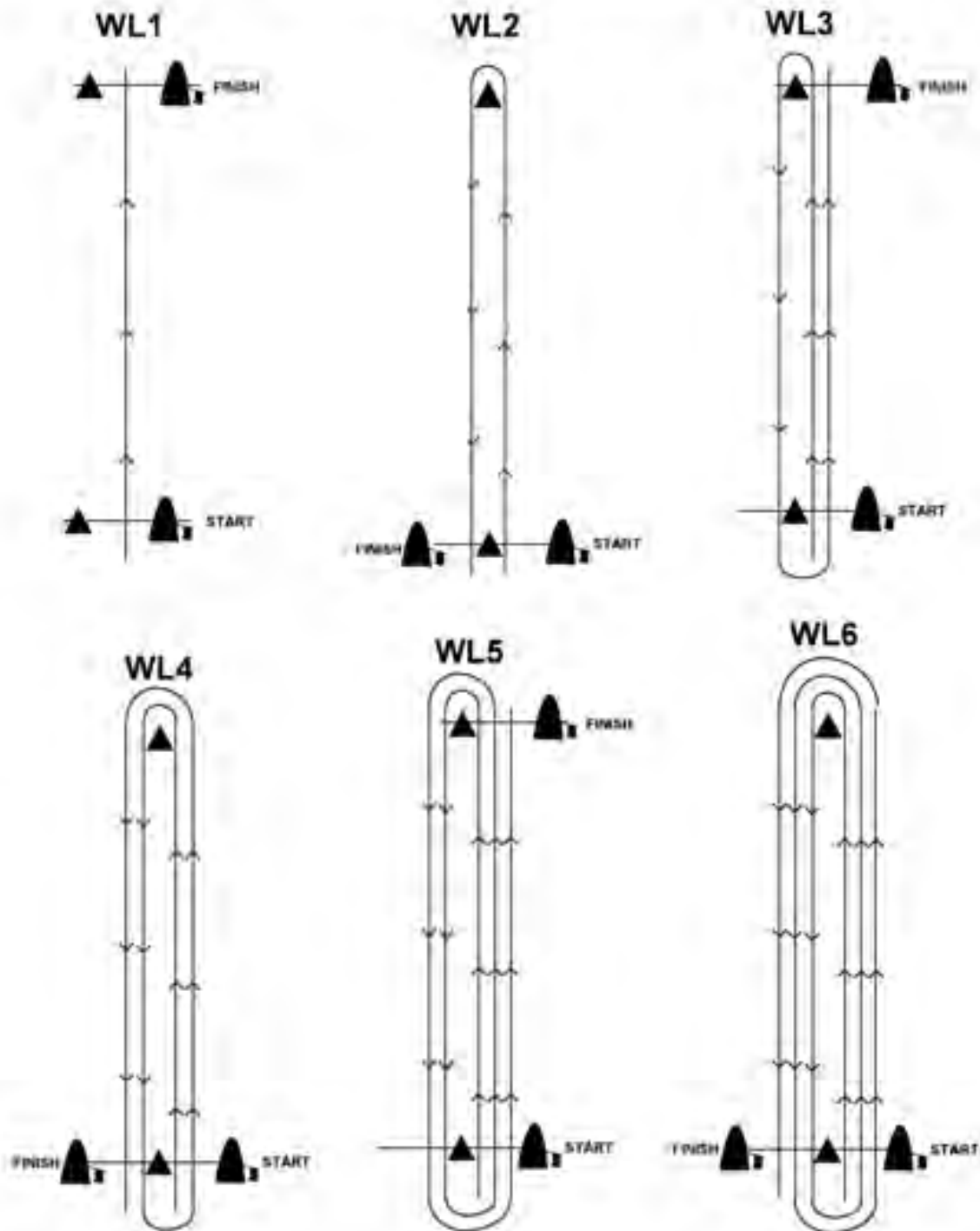
MARK	1	2	4	11	12	Snag	R	G	Tres	Cut	5	Tree	121
1		1.13	1.12	1.13	0.65	0.74	0.47	0.51	1.28				
2	1.13		0.49	0.83	1.77	0.46	0.70	0.68	0.74				
4	1.12	0.49		0.35	1.69	0.41	0.84	0.85	0.26				
11	1.13	0.83	0.35		1.61	0.59	0.98	1.07	0.22				
12	0.65	1.77	1.69	1.61		1.36	1.05	1.10	1.80				
Snag	0.74	0.46	0.41	0.59	1.36		0.44	0.51	0.63				
R	0.47	0.70	0.84	0.98	1.05	0.44		0.12	1.07				
G	0.51	0.68	0.85	1.07	1.10	0.51	0.12		1.08				
Trestle	1.28	0.74	0.26	0.22	1.80	0.63	1.07	1.08		1.20	1.30		
Cut									1.20		0.26	2.29	3.49
5									1.30	0.26			
Tree										2.29			1.58
121										3.49		1.58	



Bearings Between Marks (Degrees Magnetic)

	TO													
FROM	MARK	1	2	4	11	12	Snag	R	G	Tres	Cut	5	Tree	121
	1		138	163	181	308	153	119	117	173				
	2	318		242	249	315	293	331	334	235				
	4	343	062		260	330	001	006	009	221				
	11	001	069	080		342	037	026	028	128				
	12	128	135	150	162		142	125	123	158				
	Snag	333	113	181	217	322		011	016	197				
	R	299	151	186	206	305	191		092	194				
	G	297	154	189	208	303	196	272		196				
	Trestle	353	055	041	308	338	017	014	016		142	143		
	Cut									322		216	149	128
	5									333	036			
	Tree										329			097
121										308		277		

DCYC Course Diagrams



1. First mark specified is the weather mark.
2. Use T1, T2, etc. for temporary marks.
3. Display compass heading to first mark, not the wind direction.

A	B
WL4 4-R	WL4 T1-R
178°	

DCYC Race Marks



APS Inflatable Marks

- Allow room for air expansion if mark will be in sunlight. Don't overinflate.
- Handle carefully to avoid punctures or tears, especially during cold weather when the vinyl is stiff.
- For inflation use small wet-dry vac in storage containers next to RC boats on Dock 1.
- Get familiar with inflation valve on top of mark.
- Avoid pulling with on the four anchor points at base of marks.
- Wear gloves when pulling mark anchor lines.

Stainless Steel Carabiner

- Stays with ring on mark pigtail lines
- Allows quick connection to weight chain

Chain Weights

- Always use to keep mark standing upright.
- Keeps anchor line well below water surface and reduces chance of a keel or rudder catching an anchor line.
- Stored in lockers on Dock 1.

Anchor Lines

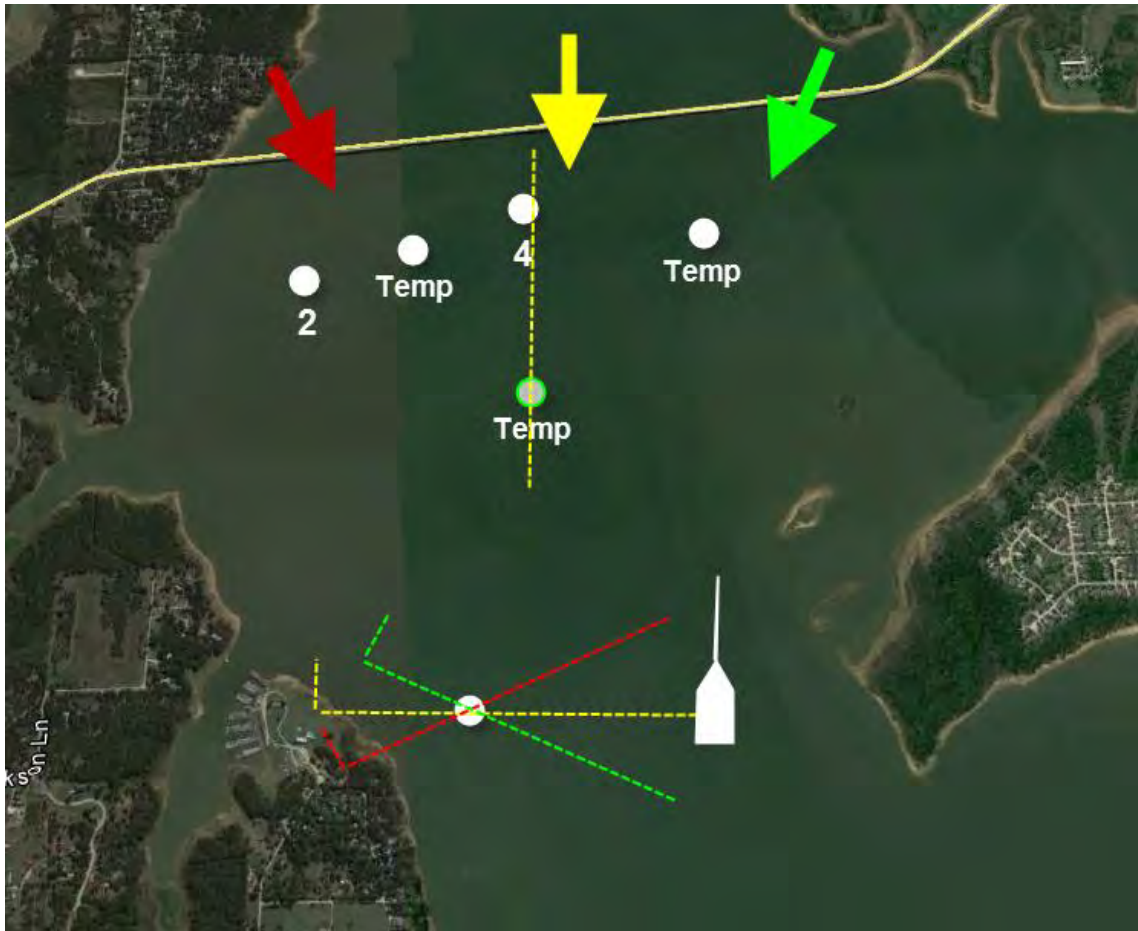
- Use Bowline knot to connect anchor line to chain.
- Anchor line lengths are color coded as shown.
- Yellow is most commonly used length.
- Coil when done.

Anchor Lines
20 ft
30 ft
40 ft
50 ft

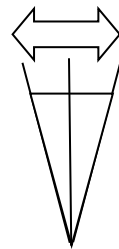
Anchors

- Black Navy anchors (10 & 15 lb) work well
- Use heavier (15 lb) in stronger breezes

Setting a Start Line



1. Go to center of course to determine wind direction. Use stick with yarn or cassette tape as a wind indicator.
2. If wind is oscillating, allow extra time to try to determine the approximate mid-point of the oscillation.
3. Start line should be square to the wind, not the upwind mark.
4. Don't waste a lot of time trying to set a perfect line, especially in shifty conditions. Racers don't like sitting on the water waiting for the RC to set a perfect line.
5. Pick something on shore to use as a transit over the starting pin (e.g., tree, mast, bush, roof, wall, building, etc.). Transit should be \sim wind direction minus 90 degrees.
6. Motor directly upwind past the start line before dropping anchor. Drift back until you see your shore point over the starting pin (i.e., other end of your transit).



Reciprocal Angle Chart (+/- 180)

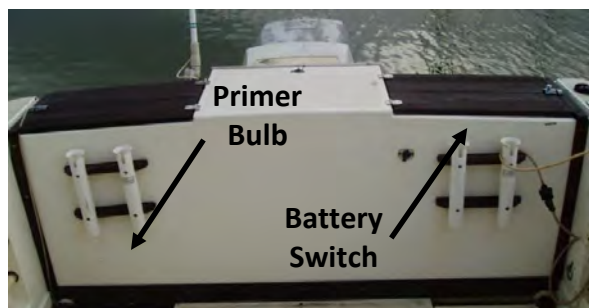
DIR	RECIP	DIR	RECIP	DIR	RECIP	DIR	RECIP	DIR	RECIP	DIR	RECIP	DIR	RECIP
0	180	45	225	90	270	135	315	180	360	225	45	270	90
1	181	46	226	91	271	136	316	181	1	226	46	271	91
2	182	47	227	92	272	137	317	182	2	227	47	272	92
3	183	48	228	93	273	138	318	183	3	228	48	273	93
4	184	49	229	94	274	139	319	184	4	229	49	274	94
5	185	50	230	95	275	140	320	185	5	230	50	275	95
6	186	51	231	96	276	141	321	186	6	231	51	276	96
7	187	52	232	97	277	142	322	187	7	232	52	277	97
8	188	53	233	98	278	143	323	188	8	233	53	278	98
9	189	54	234	99	279	144	324	189	9	234	54	279	99
10	190	55	235	100	280	145	325	190	10	235	55	280	100
11	191	56	236	101	281	146	326	191	11	236	56	281	101
12	192	57	237	102	282	147	327	192	12	237	57	282	102
13	193	58	238	103	283	148	328	193	13	238	58	283	103
14	194	59	239	104	284	149	329	194	14	239	59	284	104
15	195	60	240	105	285	150	330	195	15	240	60	285	105
16	196	61	241	106	286	151	331	196	16	241	61	286	106
17	197	62	242	107	287	152	332	197	17	242	62	287	107
18	198	63	243	108	288	153	333	198	18	243	63	288	108
19	199	64	244	109	289	154	334	199	19	244	64	289	109
20	200	65	245	110	290	155	335	200	20	245	65	290	110
21	201	66	246	111	291	156	336	201	21	246	66	291	111
22	202	67	247	112	292	157	337	202	22	247	67	292	112
23	203	68	248	113	293	158	338	203	23	248	68	293	113
24	204	69	249	114	294	159	339	204	24	249	69	294	114
25	205	70	250	115	295	160	340	205	25	250	70	295	115
26	206	71	251	116	296	161	341	206	26	251	71	296	116
27	207	72	252	117	297	162	342	207	27	252	72	297	117
28	208	73	253	118	298	163	343	208	28	253	73	298	118
29	209	74	254	119	299	164	344	209	29	254	74	299	119
30	210	75	255	120	300	165	345	210	30	255	75	300	120
31	211	76	256	121	301	166	346	211	31	256	76	301	121
32	212	77	257	122	302	167	347	212	32	257	77	302	122
33	213	78	258	123	303	168	348	213	33	258	78	303	123
34	214	79	259	124	304	169	349	214	34	259	79	304	124
35	215	80	260	125	305	170	350	215	35	260	80	305	125
36	216	81	261	126	306	171	351	216	36	261	81	306	126
37	217	82	262	127	307	172	352	217	37	262	82	307	127
38	218	83	263	128	308	173	353	218	38	263	83	308	128
39	219	84	264	129	309	174	354	219	39	264	84	309	129
40	220	85	265	130	310	175	355	220	40	265	85	310	130
41	221	86	266	131	311	176	356	221	41	266	86	311	131
42	222	87	267	132	312	177	357	222	42	267	87	312	132
43	223	88	268	133	313	178	358	223	43	268	88	313	133
44	224	89	269	134	314	179	359	224	44	269	89	314	134

Right Angle Chart (+/- 90)

-90	DIR	+90	-90	DIR	+90	-90	DIR	+90	-90	DIR	+90	-90	DIR	+90	-90	DIR	+90	-90	DIR	+90
271	1	91	316	46	136	1	91	181	46	136	226	91	181	271	136	226	316	181	271	1
272	2	92	317	47	137	2	92	182	47	137	227	92	182	272	137	227	317	182	272	2
273	3	93	318	48	138	3	93	183	48	138	228	93	183	273	138	228	318	183	273	3
274	4	94	319	49	139	4	94	184	49	139	229	94	184	274	139	229	319	184	274	4
275	5	95	320	50	140	5	95	185	50	140	230	95	185	275	140	230	320	185	275	5
276	6	96	321	51	141	6	96	186	51	141	231	96	186	276	141	231	321	186	276	6
277	7	97	322	52	142	7	97	187	52	142	232	97	187	277	142	232	322	187	277	7
278	8	98	323	53	143	8	98	188	53	143	233	98	188	278	143	233	323	188	278	8
279	9	99	324	54	144	9	99	189	54	144	234	99	189	279	144	234	324	189	279	9
280	10	100	325	55	145	10	100	190	55	145	235	100	190	280	145	235	325	190	280	10
281	11	101	326	56	146	11	101	191	56	146	236	101	191	281	146	236	326	191	281	11
282	12	102	327	57	147	12	102	192	57	147	237	102	192	282	147	237	327	192	282	12
283	13	103	328	58	148	13	103	193	58	148	238	103	193	283	148	238	328	193	283	13
284	14	104	329	59	149	14	104	194	59	149	239	104	194	284	149	239	329	194	284	14
285	15	105	330	60	150	15	105	195	60	150	240	105	195	285	150	240	330	195	285	15
286	16	106	331	61	151	16	106	196	61	151	241	106	196	286	151	241	331	196	286	16
287	17	107	332	62	152	17	107	197	62	152	242	107	197	287	152	242	332	197	287	17
288	18	108	333	63	153	18	108	198	63	153	243	108	198	288	153	243	333	198	288	18
289	19	109	334	64	154	19	109	199	64	154	244	109	199	289	154	244	334	199	289	19
290	20	110	335	65	155	20	110	200	65	155	245	110	200	290	155	245	335	200	290	20
291	21	111	336	66	156	21	111	201	66	156	246	111	201	291	156	246	336	201	291	21
292	22	112	337	67	157	22	112	202	67	157	247	112	202	292	157	247	337	202	292	22
293	23	113	338	68	158	23	113	203	68	158	248	113	203	293	158	248	338	203	293	23
294	24	114	339	69	159	24	114	204	69	159	249	114	204	294	159	249	339	204	294	24
295	25	115	340	70	160	25	115	205	70	160	250	115	205	295	160	250	340	205	295	25
296	26	116	341	71	161	26	116	206	71	161	251	116	206	296	161	251	341	206	296	26
297	27	117	342	72	162	27	117	207	72	162	252	117	207	297	162	252	342	207	297	27
298	28	118	343	73	163	28	118	208	73	163	253	118	208	298	163	253	343	208	298	28
299	29	119	344	74	164	29	119	209	74	164	254	119	209	299	164	254	344	209	299	29
300	30	120	345	75	165	30	120	210	75	165	255	120	210	300	165	255	345	210	300	30
301	31	121	346	76	166	31	121	211	76	166	256	121	211	301	166	256	346	211	301	31
302	32	122	347	77	167	32	122	212	77	167	257	122	212	302	167	257	347	212	302	32
303	33	123	348	78	168	33	123	213	78	168	258	123	213	303	168	258	348	213	303	33
304	34	124	349	79	169	34	124	214	79	169	259	124	214	304	169	259	349	214	304	34
305	35	125	350	80	170	35	125	215	80	170	260	125	215	305	170	260	350	215	305	35
306	36	126	351	81	171	36	126	216	81	171	261	126	216	306	171	261	351	216	306	36
307	37	127	352	82	172	37	127	217	82	172	262	127	217	307	172	262	352	217	307	37
308	38	128	353	83	173	38	128	218	83	173	263	128	218	308	173	263	353	218	308	38
309	39	129	354	84	174	39	129	219	84	174	264	129	219	309	174	264	354	219	309	39
310	40	130	355	85	175	40	130	220	85	175	265	130	220	310	175	265	355	220	310	40
311	41	131	356	86	176	41	131	221	86	176	266	131	221	311	176	266	356	221	311	41
312	42	132	357	87	177	42	132	222	87	177	267	132	222	312	177	267	357	222	312	42
313	43	133	358	88	178	43	133	223	88	178	268	133	223	313	178	268	358	223	313	43
314	44	134	359	89	179	44	134	224	89	179	269	134	224	314	179	269	359	224	314	44
315	45	135	360	90	180	45	135	225	90	180	270	135	225	315	180	270	360	225	315	45

DCYC RC SIGNAL BOAT

HULL	ENGINE	GAS-OIL
Model: Aquasport	Make: Frankenstein	Mix Ratio:
Year: 1984	Type: 2 Cycle	50:1 = 16 oz oil per 6 gal gas
Length: 22 ft.	Year: Multiple	50:1 = 2.6 oz oil per 1 gal gas
Hull No (HIN): ASPN1010M84A	Serial No: Doesn't matter now	Gas Tank Size – 85 gal



STARTING INSTRUCTIONS

1. Turn on **BATTERY SWITCH** to #1 or #2 battery
2. **CHECK FUEL GAGE** with ignition switch in ON position
3. **LOWER BOAT** to ensure outboard water intake is covered
4. **PRIME ENGINE** using primer bulb until bulb is firm
5. Ensure **THROTTLE IN NEUTRAL** (pulls out from housing)
6. Turn **IGNITION KEY ON** (push in to choke only for first start)
7. Push throttle forward (STILL IN NEUTRAL) to **WARM ENGINE**
8. After engine is warm, **LOWER FAST IDLE** as needed



Ignition Switch

Throttle - Pull **OUT** from housing to put engine in neutral. Push forward if engine turns but doesn't start.



IF ENGINE WON'T TURN OVER AT ALL – Make sure battery is in #1 or #2 position. If neither position works, try ALL. If none work, check battery connections.

IF ENGINE TURNS BUT DOESN'T START – Make sure prime was completed (bulb is firm). Check that throttle is in neutral (pulled out, away from housing). Push throttle forward slightly.

NOTE ABOUT PRIMING – Once the engine runs, you shouldn't need to prime again unless the engine hasn't run for several hours and won't start. Same guideline applies to the choke.

CONTACT: If you have problems starting the engine, contact the DCYC Caretaker via radio or phone.



Windlass Battery Switch

Leave in **OFF** (down) position unless windlass battery is dead.



Windlass Control Switch

Push **UP & HOLD** to **DROP** anchor.

Push **DOWN & HOLD** to **RETRIEVE** anchor.

WINDLASS & ANCHOR INSTRUCTIONS

WINDLASS BATTERY SWITCH – **OFF (down)** is normal operating mode, and isolates windlass battery from engine batteries. **ON (up)** position engages engine battery for windlass operation. *Avoid draining engine battery in ON position.*

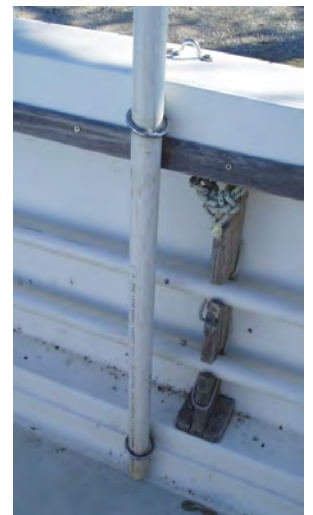
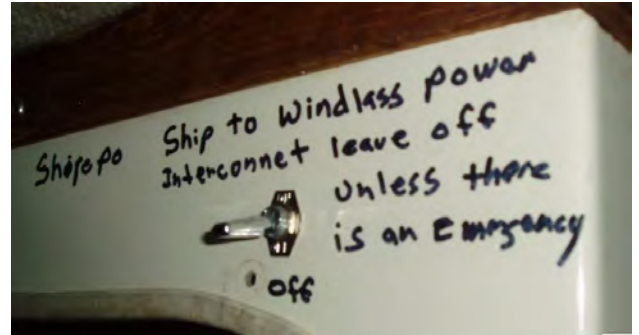
WINDLASS CONTROL SWITCH – Located above the ignition key. Must **PUSH** and **HOLD** switch to run windlass.

ANCHOR CHAIN PAINT COLORS

ORANGE – End of chain approaching.

RED – End of chain.

DCYC Committee Boat



Race Scoring Sheet

Date:

Event:

Race #

Fleet:

Start Time:

Course:

Distance:

Helm	Boat Type	Sail #	Boat Name	Class	Rating	Finish Time	Elapsed Time

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5- Minute Starting Sequence (Timing & Flags on Signal Boat)



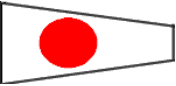



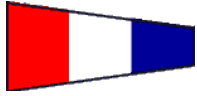



Up - Up - Down - Down

5↑ - 4↑ - 1↓ - 0↓

Fleet↑ - Prep↑ - Prep↓ - Fleet↓

Sound ● - Sound ● - Long Sound ■■■ - Sound ●


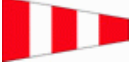





6 min*	5 min		4 min		1 min	0 min (Start)
No flag	Fleet Flag↑		Prep Flag↑		Prep Flag↓	Fleet Flag↓
●●●●●●	●		●		■■■	●
	#1		P			
	#2		I			
	#3		Z			
	#4		Blk			











FLAGS ARE OFFICIAL ... sounds are a courtesy (but wrong/missing sounds are confusing to racers)

Recommendation: Start 5-minute sequence on one of the 5 minute times (:00, :05, :45, etc.)


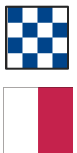
*Recommend Courtesy Alert: Lets competitors know that a sequence is about to start (some people also use 30 secs prior to start)

L		↑●	No sound	<i>On the water: Come within hail or Follow this boat.</i>	Useful to signal you want boats to check in before racing starts.
AP		↑●●	↓●	Answering Pennant – Use to postpone any time <u>before start</u> .	Drop 1 minute before next sequence starts.
X		↑●	No sound	Individual Recall – Raise if early starters can be identified.	Drop after early starter(s) have all restarted. 4 min max typical.
1 st Sub		↑●●	↓●	General Recall – Too many early starters to identify individually	Drop 1 minute before next sequence starts.
N		↑●●●	↓●	Abandon – Use to abandon any time <u>after start</u> . Return to start area.	Drop 1 minute before next sequence starts.

Other RC Signals

S		↑●●	No sound	Shorten Course – Rule 32.2 is in effect. Must signal before 1 st boat crosses the finishing line.	At Rounding Mark: Finish line is between mark and S flag. At a Gate: Between gate marks. Lap Line: That line.
C		-----	No sound	Change Course – The position of the next mark has been changed. Must signal all boats before the boats <u>begin</u> the next leg. Next mark need not be in position at that time.	Used in conjunction with the green starboard, red port, minus decrease, and plus indicators shown below. Keep repeating sounds so all boats hear them.
		No sound	No sound	To starboard	Next mark has been moved to starboard of the original mark.
		No sound	No sound	To port	Next mark has been moved to starboard of the original mark.
		No sound	No sound	The length of the leg has been INCREASED.	Used with C- Change Course flag.
		No sound	No sound	The length of the leg has been DECREASED.	Used with C- Change Course flag.
M		-----	No sound	Missing Mark – The object (typically an RC boat) displaying this signal replaces the missing mark.	Keep repeating sounds so all boats hear them.
		No sound	No sound	Orange flag – Typically used for the Start-Finish line.	Not defined in the Racing Rules but should be in SIs.
		No sound	No sound	Blue flag – Means the RC boat is in position at the finish line.	Can fly at the same time as the orange Start-Finish line flag.
Y		↑●	No sound	Wear a personal flotation device.	Good idea when the breeze is strong.

Abandonment Signals

N over A		↑●●●	No sound	All races are abandoned. No more racing today.	Done for the day.
N over H		↑●●●	No sound	All races are abandoned. Further signal ashore.	Possibility exists that racing may resume later today. Competitors should return to shore for further information.

Regatta Pro Start Automatic Horn System

REGATTA PRO START SYSTEM – QUICK REFERENCE

Starting a Sequence

- Push the **Sequence Start** button.
- The horn sounds and the 5-minute sequence starts immediately.
- The control is set up to repeat the 5-minute sequence automatically with no delay (i.e., rolling starts).

Stopping a Sequence

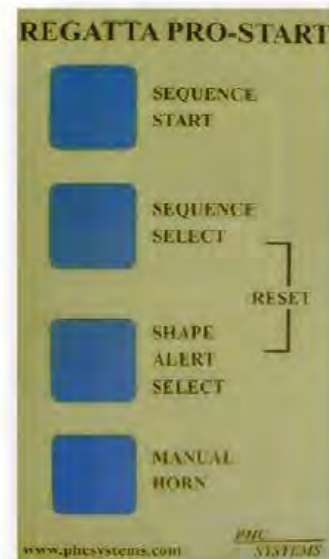
- Press the **Sequence Select & Shape Alert Select** buttons at the same time.

Manual Horn

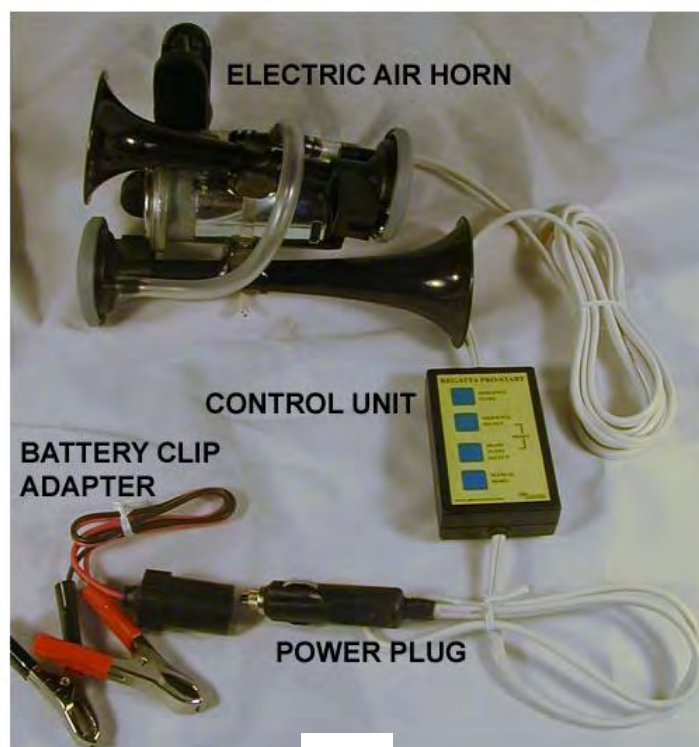
- The **Manual Horn** button can be used at any time for:
 - A courtesy warning prior to a sequence start.
 - Raising or dropping a flag, other than the standard sounds that are part of the 5-minute sequence.
 - Individual recall / general recall.

Controller Beep Sound

- The controller uses a high pitch beep/chirp sound to convey the following information:
 - A single beep every ten seconds to indicate a sequence is active.
 - A long beep 15 seconds before the completion of a start sequence.
 - Five consecutive beeps during the final 5 seconds of a start sequence.
 - Multiple beeps at each minute during a start sequence. The number of beeps corresponds to the minute (e.g., four beeps at 4 mins, three at 3 mins., etc.)
 - Confirmation of changed controller settings (see the manufacturer's instructions for details)



Please return to Dallas Corinthian Yacht Club, 1399 Yacht Club Road, Oak Point TX 75068



Managing and Monitoring the Race

SAFETY

1. Count boats and keep an eye on everyone on the race course, particularly in heavy wind.
2. Make sure you monitor the designated VHF radio channel.
3. Monitor weather forecasts if inclement weather is predicted.
4. If you have to abandon racing due to weather, make the call with enough time for boats to sail back to the harbor and derig safely (before weather moves in).
5. Keep two radios active on the boat (one for the race channel and one for weather) if inclement weather is forecast.

TIMING

1. Note time for first boat to round the first mark.
2. Estimate the expected time to complete the course.
3. Note any time limits specified in the Sailing Instructions.

COURSE CHANGES

1. Any course change must be made before the first boat starts her leg to the change mark.
2. Make sure you understand the course change process, flags, timing, etc. before attempting ... particularly if short handed.
Letting racers finish on a slightly skewed course is better than messing up a race because a course change wasn't implemented properly.
3. Get some practice with an experienced RC/PRO before attempting course changes on your own.



MOVING AROUND THE RACE COURSE

1. Feel free to pull anchor and move around the race course, if you are confident in the Cmte Boat starting.
2. Take down your flags when you move off of the start/finish line.
3. Make sure you allow enough time to get back and re-anchor before finishing racers.

Finishing the Race

PREPARE FOR THE FINISHING BOATS

1. Keep track of legs around the course so you don't get surprised.
2. Start identifying boats/sail numbers during the last part of the last leg.
3. Binoculars should be in the RC equipment kit.
4. Use a digital watch if at all possible.



FLAGS AT THE FINISH LINE

1. Same staff with orange flag used on Cmte Boat to mark one end of the finish line.
2. Fly the solid blue flag to indicate Cmte Boat is on station ready for the finish.
3. Wait to fly blue flag until first boat is on last leg. This avoids confusing other fleets that may not yet be on their last leg.
4. If a shorten course flag is being used, it replaces the orange flag.



HORN -vs- WHISTLE

1. HORN - First boat in a fleet that crosses the finish line get a horn.
2. WHISTLE – All other boats in a fleet that finish behind the first boat get a whistle.
3. NO SOUND – No sound signal is given to a boat that hasn't properly completed the race course.



LOGGING TIMES ON THE SCORE SHEET

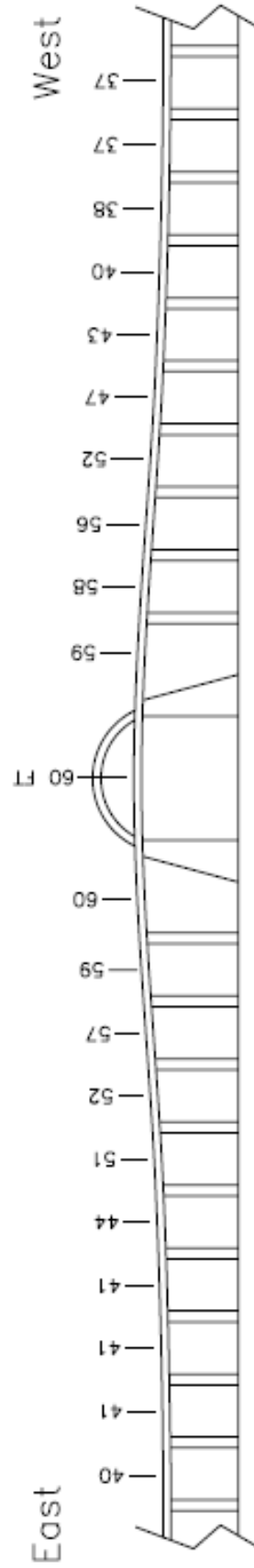
1. If possible, try writing down the HR and MIN of the finish time prior to the boat crossing. Then add the SEC at the horn or whistle. The person calling the finish line should help the scorer with this.
2. The finish time format should be **HH:MM:SS**

WHEN DOES A BOAT FINISH?

1. See RRS Definitions.
2. First part of the hull, crew or equipment IN NORMAL POSITION crosses the finish line in the direction from the last mark.
3. Must take penalties before crossing the finish line.
4. Must correct an error (or foul) at the finish line prior to being finished.
5. Sounds, not flags, indicate a finish. This is different than when starting.
6. As long as the RC records your finish time, lack of a finishing horn/whistle is not grounds for a protest (i.e., couldn't find the whistle).

Lake Lewisville Toll Bridge Clearances

LAKE LEWISVILLE TOLL BRIDGE – CLEARANCES



- Numbers indicate bridge bottom clearance at the lake pool elevation of 522 feet and include 2 feet of margin for waves and boat movement.
- Important – must adjust the clearance values to present lake level.
- Center clearance actual is 584 feet above sea level (62 ft).
- Clearances continue to drop as you near the shorelines.

source – North Texas Toll Authority 2009



by Matt Bounds, HCANA Race Director

Abandonment

When Good Races Go Bad

A recent regatta experience reminded me that one of the toughest decisions a race officer has to make is when to abandon a race. It's necessary when good races go bad - when the wind goes beyond nuclear, when thunderstorms or squalls are approaching, or most often, when the wind quits or shifts just after the start.

This particular regatta, as so often happens on inland lakes, the wind was very shifty and light. The RC waited for the wind to settle down, and then started a race in about four knots of breeze. Thirty seconds after the start, a 50 degree right shift hit and stuck, and a huge, windless hole developed on the left side. If you were on the right side, you were golden. If you were on the left, you were mud. By the time the "lefties" got to the

weather mark, the "righties" were rounding the gate. It had turned into a drag race.

The Race Officer abandoned the race, and rightfully so, since the Racing Rules of Sailing allow the RC to "abandon the race for any reason directly affecting the safety or fairness of the competition." The race had become unfair shortly after the start. My only complaint was that they waited 26 minutes into the race before abandoning, but complaining is easy to do with 20/20 hindsight.

If you need to abandon a race, make sure you do it properly. There are three "varieties" of abandonment that are illustrated below. If you want to stop the race in progress and get going quickly on another race, just use code flag "N" and three sounds. Keep the "N"

flag flying until you're ready to start another race. It should be dropped (with one sound) exactly one minute before the warning signal.

If you need to send boats and people to shore - in the case of inclement weather, for example - fly "N" over "H". That preserves your ability to run more races later in the day if and when weather has passed. If it's later in the day and you know that there's no chance of running another race that day, fly "N" over "A" (no more races today).

When do you abandon vs. postpone? Paul Ulibarri taught me that **you cannot abandon a race that has not started**. If no race is in progress, the proper signal is AP (postponement), or its two variants (AP over H and AP over A) that are similar to the abandonment variants below.

ABANDONMENT SIGNALS

N
(3 sounds when raised; 1 when lowered)

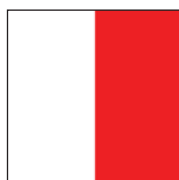
All races that have started are *abandoned*. Return to the starting area. The warning signal will be made 1 minute after removal unless at that time the race is *abandoned* again or *postponed*.



N over H
(3 sounds when raised).

All races are *abandoned*.

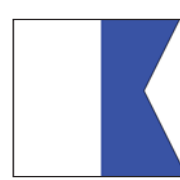
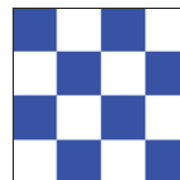
Further signals ashore.



N over A
(3 sounds when raised).

All races are *abandoned*.

No more racing today.



The US SAILING Race Management Manual devotes six pages to advice on abandonment, illustrating what an important decision it is. The Canadian Yachting Association RMM devotes an entire chapter to it. However, one aspect of abandonment that neither of them directly addresses is decision consistency.

Continuing with my regatta anecdote:

After a re-sail of the abandoned race (finished in 0-2 kts of breeze), the RC again waited for wind and then started a race in marginal conditions. There wasn't an obvious shift / hole situation on the first leg, but if you went left, you did well – very well. If you went right, you got hammered. The results were the same as the first race – leaders were going through the gate when the trailing boats were just making it around the weather mark.

However, this time, the Race Officer did not abandon. Their

reasoning was that boats still had to tack to reach the weather mark, so there were tactics involved; even though the fleet was spread out over the entire course and some boats were a leg ahead.

By decision consistency, I mean the Race Officer needs to be prepared to pull the plug on a subsequent race for essentially the same reasons as abandoning an earlier race – even if the conditions that produce those reasons are different. By abandoning the first race, the Race Officer set a standard of competition. By not abandoning the subsequent race, they violated that standard.

Another consideration is the effect of abandonment on a series of races. If a non-local sailor was winning the regatta and first (abandoned) race, and the local favorite, running a close second in the event, was winning the second (un-abandoned) race, wouldn't you raise an eyebrow? Even if it's just a coincidence, the mere percep-

tion of favoritism is enough for a displeased competitor to request redress.

One of my main objectives as a race officer is to avoid redress hearings. Not only do they cut into my evening relaxation time, but they mean that my decisions may have somehow impacted the fairness of the racing. Anytime I make a major decision (course change, shortening course, or abandonment), I ask myself, "Will doing this result in a request for redress?" If the answer is "yes", it doesn't mean I won't follow through on the decision. It just means that the decision be supported with all the documentation I can muster, including consulting with the jury if they are on the water.

It's easy to armchair quarterback the situation post-race, and much tougher to make the call during the races. When you're running the races, be prepared to make (and defend) the tough calls as best you can.

If it gets so foggy that competitors are having a hard time finding the marks, it's probably a good call to abandon the race.



JEREMY LEONARD

The Racing Rules of Sailing

for 2009-2012

Part 3 Conduct of a Race

25 NOTICE OF RACE, SAILING INSTRUCTIONS AND SIGNALS

The notice of race and sailing instructions shall be made available to each boat before a race begins. The meanings of the visual and sound signals state in Race Signals shall not be changed except under rule 86.1(b). The meanings of any other signals that may be used shall be stated in the sailing instructions.

26 STARTING RACES

Races shall be started by using the following signals. Times shall be taken from the visual signals; the absence of a sound signal shall be disregarded.

Signal	Flag and sound	Minutes before starting signal
Warning	Class flag; 1 sound	5*
Preparatory	P, I, Z, Z with I, or black flag; 1 sound	4
One-minute	Preparatory flag removed; 1 long sound	1
Starting	Class flag removed; 1 sound	0

* or as stated in the sailing instructions

The warning signal for each succeeding class shall be made with or after the starting signal of the preceding class.

27 OTHER RACE COMMITTEED ACTIONS BEFORE THE STARTING SIGNAL

27.1 No later than the warning signal, the race committee shall signal or otherwise designate the course to be sailed if they sailing instructions have not stated the course, and it may replace one course signal with another and signal that wearing personal floatation devices is required (display flag Y with one sound).

27.2 No later than the preparatory signal, the race committee may move a starting *mark*.

27.3 Before the starting signal, the race committee may for any reason *postpone* (display flag AP, AP over H, or AP over A, with two sounds) or *abandon* the race (display flag N over H, or N over A, with three sounds).

28 SAILING THE COURSE

28.1 A boat shall *start*, leave each *mark* on the required side in the correct order, and *finish*, so that a string representing her track after *starting* and until *finishing* would when drawn taut

- (a) pass each *mark* on the required side,
- (b) touch each rounding *mark*, and
- (c) pass between the *marks* of a gate from the direction of the previous *mark*.

She may correct any errors to comply with this rule. After *finishing* she need not cross the finishing line completely.

28.2 A boat may leave on either side a *mark* that does not begin, bound or end the leg she is on. However, she shall leave a starting *mark* on the required side when she is approaching the starting line from its pre-start side to *start*.



29 RECALLS

29.1 Individual Recall

When at a boat's starting signal any part of her hull, crew or equipment is on the course side of the starting line or she must comply with rule 30.1, the race committee shall promptly display flag X with one sound. The flag shall be displayed until all such boats are completely on the pre-start side of the starting line or one of its extensions and have complied with rule 30.1 if it applies, but not later than four minutes after the starting signal or one minute before any later starting signal, whichever is earlier. If rule 30.3 applies this rule does not.



29.2 General Recall

When at the starting signal the race committee is unable to identify boats that are on the course side of the starting line or to which rule 30 applies, or there has been an error in the starting procedure, the race committee may signal a general recall (display the First Substitute with two sounds). The warning signal for a new start for the recalled class shall be made one minute after the First Substitute is removed (one sound), and the start for any succeeding classes shall follow the new start.



30 STARTING PENALTIES

30.1 I Flag Rule

If flag I has been displayed, and any part of a boat's hull, crew or equipment is on the course side of the starting line or one of its extensions during the last minute before her starting signal, she shall thereafter sail from the course side across an extension to the pre-start side before *starting*.



30.2 Z Flag Rule

If flag Z has been displayed, no part of a boat's hull, crew or equipment shall be in the triangle formed by the ends of the starting line and the first *mark* during the last minute before her starting signal. If a boat breaks this rule and is identified, she shall receive, without a hearing, a 20% Scoring Penalty calculated as stated in rule 44.3(c). She shall be penalized even if the race is restarted or resailed, but not if it is *postponed* or *abandoned* before the starting signal. If she is similarly identified during a subsequent attempt to start the same race, she shall receive an additional 20% Scoring Penalty.



30.3 Black Flag Rule

If a black flag has been displayed, no part of a boat's hull, crew or equipment shall be in the triangle formed by the ends of the starting line and the first *mark* during the last minute before her starting signal. If a boat breaks this rule and is identified, she shall be disqualified without hearing, even if the race is restarted or resailed, but not if it is *postponed* or *abandoned* before the starting signal. If a general recall is signaled or the race is *abandoned* after the starting signal, the race committee shall display her sail number before the next warning signal for that race, and if the race is restarted or resailed she shall not sail in it. If she does so, her disqualification shall not be excluded in calculating her series score.



31 TOUCHING A MARK

While *racing*, a boat shall not touch a starting *mark* before *starting*, a *mark* that begins, bounds or ends the leg of the course on which she is sailing, or a finishing *mark* after *finishing*.

32 SHORTENING OR ABANDONING AFTER THE START

32.1 After the starting signal, the race committee may shorten the course (display flag S with two sounds) or abandon (display flag N, N over H, or N over A, with three sounds), a appropriate,

- (a) because of an error in the starting procedure
 - (b) because of foul weather
 - (c) because of insufficient wind making it unlikely that any boat will *finish* within the time limit,
 - (d) because a *mark* is missing or out of position, or
 - (e) for any other reason directly affecting the safety or fairness of the competition,
- or may shorten the course so that other scheduled races can be sailed. However, after one boat has sailed the course and *finished* within the time limit, if any, the race committee shall not *abandon* the race without considering the consequences for all boats in the race or series.

32.2 If the race committee signals a shorten course (displays flag S with two sounds), the finishing line shall be,

- (a) at a rounding *mark*, between the *mark* and a staff displaying flag S;
- (b) at a line boat are required to cross at the end of each lap, that line;
- (c) at a gate, between the gate *marks*.

The shortened course shall be signaled before the first boat crosses the finishing line.

33 CHANGING THE NEXT LEG OF THE COURSE

The race committee may change a leg of the course that begins at a rounding *mark* or at a gate by changing the position of the next *mark* (or the finishing line) and signaling all boats before they begin the leg. The next *mark* need not be in position at that time.

- (a) If the direction of the leg will be changed, the signal shall be the display of flag C with repetitive sounds and either
 - (1) the new compass bearing or
 - (2) a green triangular flag or board for a change to starboard or a red rectangular flag or board for a change to port.
- (b) If the length of the leg will be changed, the signal shall be the display of flag C with repetitive sounds and a ‘—’ if the length will be decreased or a ‘+’ if it will be increased.
- (c) Subsequent legs may be changed without further signaling to maintain the course shape.

34 MARK MISSING; RACE COMMITTEE ABSENT

If a *mark* is missing or out of position, the race committee shall, if possible,

- (a) replace it in its correct position or substitute a new one of similar appearance, or
- (b) substitute an object displaying flag M and make repetitive sound signals.

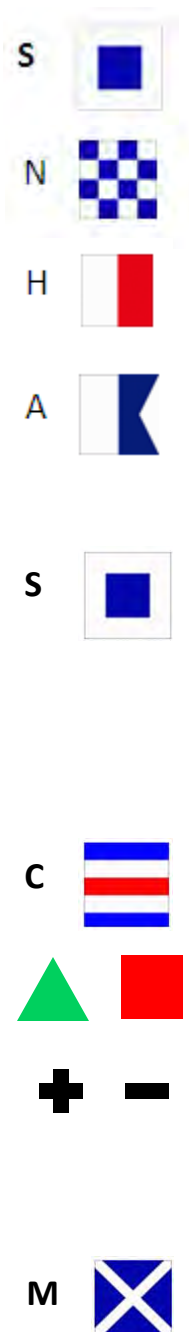
US SAILING prescribes that, if a finishing mark is missing but another one remains in place, a boat shall finish as close to the remaining mark a practicable on a line extending from its required side at a 90° angle to the last leg. If a boat finishes when the race committee is absent, to be scored as finishing she shall note her finishing time and her finishing position in relation to any nearby boats and report them to the race committee as soon as a reasonably possible.

35 TIME LIMIT AND SCORES

If one boat sails the course as required by rule 28.1 and *finishes* within the time limit, if any, all boats that *finish* shall be scored according to their finishing places unless the race is *abandoned*. If no boat *finishes* within the time limit, the race committee shall *abandon* the race.

36 RACES RESTARTED OR RESAILED

If a race is restarted or resailed, a breach of a *rule*, other than rule 30.3, in the original race shall not prohibit a boat from competing or, except under rule 30.2, 30.3 or 69, cause her to be penalized.



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The Racing Rules of Sailing

for 2009-2012

Definitions

*A term used as stated below is shown in italic type or, in preambles, in **bold italic** type.*

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 a position to pass to windward of it and leave it on the required side without changing *tack*.

Finish A boat *finishes* when any part of her hull, 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 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 protestor; 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 its 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 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 race 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 finishing line and *marks* or retires, or until the race committee signals a general recall, *postponement* or *abandonment*.

Room The space a boat needs in the existing conditions while maneuvering 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.

Windward See *Leeward and Windward*.

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*.

Racing Rules of Sailing 2009-2012 – Scoring (not yet updated to RRS 2013-2016)

Rule/Section Text	Comments
90.3 SCORING (a) <ul style="list-style-type: none"> The race committee shall score a race or series as provided in Appendix A using the Low Point System, unless the sailing instructions specify the Bonus Point System or some other system. A race shall be scored if it is not <i>abandoned</i> and if one boat sails the course in compliance with rule 28.1 and <i>finishes</i> within the time limit, if any, even if she retires after <i>finishing</i> or is disqualified. (b) <ul style="list-style-type: none"> When a scoring system provides for excluding one or more race scores from a boat's series score, the score for disqualification under rule 2; rule 30.3's last sentence; rule 42 if rule 67, P2.2 or P2.3 applies; or rule 69.1(b)(2) shall not be excluded. The next worse score shall be excluded instead. 	<ul style="list-style-type: none"> Low point system is default scoring system unless the sailing instructions (SIs) specify something else. A race counts if at least one boat sails the proper race course and finishes within the time limit specified in the SIs. Can't exclude disqualifications for: unfair sailing (rule 2); sailing in a race when prohibited after a Black Flag penalty (last sentence in rule 30.3); disqualification related to propulsion (rule 42); or actions by a Protest Committee related to gross misconduct (rule 69.1(b)).
A1 NUMBER OF RACES <ul style="list-style-type: none"> The number of races scheduled and the number required to be completed to constitute a series shall be stated in the sailing instructions. 	
A2 SERIES SCORES <ul style="list-style-type: none"> Each boat's series score shall be the total of her race scores excluding her worst score. (The sailing instructions may make a different arrangement by providing, for example, that no score will be excluded, that two or more scores will be excluded, or that a specified number of scores will be excluded if a specified number of races are completed. A race is completed if scored; see rule 90.3(a).) If a boat has two or more equal worst scores, the score(s) for the race(s) sailed earlier in the series shall be excluded. The boat with the lowest series score wins and others shall be ranked accordingly. 	<ul style="list-style-type: none"> Unless specified otherwise, the default number of throw-outs will be one. The SIs can specify something different than the standard ("default"), single throwout. Throw-outs start with the earliest, worst score.
A3 STARTING TIMES AND FINISHING PLACES <ul style="list-style-type: none"> The time of a boat's starting signal shall be her starting time, and the order in which boats <i>finish</i> a race shall determine their finishing places. However, when a handicap or rating system is used a boat's corrected time shall determine her finishing place. 	
A4 LOW POINT AND BONUS POINT SYSTEMS <ul style="list-style-type: none"> <i>Most series are scored using either the Low Point System or the Bonus Point System....</i> A4.2 <ul style="list-style-type: none"> A boat that did not <i>start</i>, did not <i>finish</i>, retired after <i>finishing</i> or was disqualified shall be scored points for the finishing place one more that the number of boats entered in the series. A boat that is penalized under rule 30.2 or that takes a penalty under rule 44.3(a) shall be scored points as provided in rule 44.3(c). 	REGATTA SCENARIO <ul style="list-style-type: none"> If a boat doesn't come to the starting area, it will be scored as the number of boats registered in the series plus one. This is the Z-flag, 20% penalty (rule 30.2) and any other scoring penalty specified in the sailing instructions.

RRS Scoring Cont'd

<div><div>A5 SCORES DETERMINED BY THE RACE COMMITTEE</div><div><ul style="list-style-type: none">A boat that did not <i>start</i>, comply with rule 30.2 or 30.3, or <i>finish</i>, or that takes a penalty under rule 44.3(a) or retires after <i>finishing</i>, shall be scored accordingly by the race committee without a hearing.Only the protest committee may take other scoring actions that worsen a boat’s score.</div></div>	<div><ul style="list-style-type: none">The race committee can score based on the Z flag 20% (30.2), black flag (30.3), or an SI-specified scoring penalty (44.3a), or an RAF situation, without going through any type of hearing.Any other scoring penalties must go through a protest committee.</div>
<div><div>A6 CHANGES IN PLACES AND SCORES OF OTHER BOATS</div><div><div>A6.1 If a boat is disqualified from a race or retires after <i>finishing</i>, each boat with a worse finishing place shall be moved up one place.</div><div>A6.2 If the protest committee decides to give redress by adjusting a boat’s score, the scores of other boats shall not be changed unless the protest committee decides otherwise.</div></div></div>	
<div><div>A7 RACE TIES</div><div><ul style="list-style-type: none">If boats are tied at the finishing line or if a handicap or rating system is used and boats have equal corrected times, the points for the place for which the boats have tied and for the place(s) immediately below shall be added together and divided equally.Boats tied for a race prize shall share it or be given equal prizes.</div></div>	<div><ul style="list-style-type: none">Examples: Two boats that tie for first are scored $(1+2)/2 = 1.5$. The next boat is scored 3. Three boats that tie for 3rd are scored $(3+4+5)/3 = 4$. The next boat is scored 6. The same logic is used for other tie scenarios.</div>
<div><div>A8 SERIES TIES</div><div><div>A8.1</div><div><ul style="list-style-type: none">If there is a series-score tie between two or more boats, each boat’s race scores shall be listed in order of best to worst, and at the first point(s) where there is a difference the tie shall be broken in favor of the boat(s) with the best score(s).No excluded scores shall be used.</div><div>A8.2</div><div><ul style="list-style-type: none">If a tie remains between two or more boats, they shall be ranked in order of their scores in the last race.Any remaining ties shall be broken by using the tied boats’ scores in the next-to-last race and so on until all ties are broken.These scores shall be used even if some of them are excluded scores.</div></div></div>	<div><ul style="list-style-type: none">This is the standard “who has the most number of firsts, etc. etc.. If both boats have the same number of 1st place finishes, move on to the 2nd place finishes, then 3rds, and so on.Throw-outs aren’t included for tie-breaking.If the standard tie-break procedure doesn’t resolve a tie, then use the last race.If the boats tied in the last race, move on to the next to last race, etc.If needed as a last resort, use excluded scores to resolve a tie.</div>
<div><div>A9 RACE SCORES IN A SERIES LONGER THAN A REGATTA</div><div><ul style="list-style-type: none">For a series that is held over a period of time longer than a regatta, a boat that came to the starting area but did not <i>start</i>, did not <i>finish</i>, retired after <i>finishing</i> or was disqualified shall be scored points for the finishing place one more than the number of boats that came to the starting area.A boat that did not come to the starting area shall be scored points for the finishing place one more than the number of boats entered in the series.</div></div>	<div><div>MULTI-WEEKEND SERIES SCENARIO</div><div><ul style="list-style-type: none">If a boat comes to the starting area but doesn’t start/finish, or is DSQ’d, it will be scored as the number of boats that came to the starting area plus one.If a boat doesn’t come to the starting area, it will be scored as the number of boats registered in the series plus one.</div></div>
<div><div>A11 SCORING ABBREVIATIONS</div><div><div><div>DNC Did not <i>start</i>; did not come to starting area</div><div>DNS Did not <i>start</i> (other than DNC and OCS)</div><div>OCS Did not <i>start</i>; on the course side of starting line</div><div>ZFP 20% penalty under rule 30.2</div></div><div><div>DNF Did not <i>finish</i></div><div>DSQ Disqualification</div><div>RAF Retired after <i>finishing</i></div><div>RDG Redress given</div></div><div><div>BFD Disqualification under rule 30.3</div><div>SCP Took a Scoring Penalty under rule 44.3(a)</div><div>DNE / DGM (see Appendix A, A11)</div></div></div></div>	