



# NPSA / RCRA Combined Series Racing Instructions June 1 to July 6 2022

# **RACING INSTRUCTIONS**

# Rules:

All rules will be governed by ISAF Racing Rules, except as modified by these instructions.

- A) All classes:
  - a. All boats will race with a PHRF rating determined by the Race Committee Chairman.
  - b. Alternate scoring methods will be run in parallel with PHRF as a case study. <u>RCRA will score</u> by ORR-ez, rating determined by the RCRA Race Committee Chairman.
  - c. There will be a penalty for oversized headsails.
  - d. Use of double headsails is permitted for white and blue class.
  - e. Captains are required to notify the Race Committee of any modifications to their boat, sails or equipment that affects their PHRF rating.
  - f. All boats are required to sail under U. S. Coast Guard regulations (which includes the proper and timely use of running, steaming and anchor lights).
  - g. It is the responsibility of each skipper and crew to understand and comply with the ISAF Racing Rules and the rules in this NPSA 2020 these Racing Instructions.
- **B)** Non- Spinnaker Class:
  - a. Spinnakers and cruising \ spinnakers are not permitted in the Non-Spinnaker Classes.
  - b. A drifter may be used for either a first or second headsail as long as it has shanks or luff tape along the luff.
  - c. Only one whisker pole may be deployed at a time. If it is telescoping it must not be extended beyond the "J" value of the boat. The "J" value is the distance from the base of the mast to the forestay tack. Telescoping poles must be clearly marked at the "J" length.
- C) Race Cancellation:
  - a. Cancellation, delay or postponement of a race is at the sole discretion of the Race Committee Chairperson or Commodore.
  - b. Factors that may cause a delay, postponement or cancellation include, but are not limited to, weather, safety, equipment and availability of race committee personnel.
- **D)** Final Decision:
  - a. All decisions of the Race Committee Chairman and or the Commodore are final.

# Notice to Competitors:

Notices to competitors will be posted at three locations: Young's Boat Yard and on the NPSA Website-<u>and RCRA website</u>.

# **Changes in Sailing Instructions:**

Any change(s) to the sailing instructions will be posted by 5:00 p.m. on the day before they take effect. The race committee will also attempt to contact captains via e-mail and text.

# **Racing Classes:**

- A) Competitors will be grouped into classes based upon registration and experience.
- **B)** All classes will race in the same racing area.
- **C)** Class flags may be obtained at the Race Committee boat. Boats must display the applicable class flag.
  - a. **Spinnaker** Shall display a white flag
  - b. Non-Spinnaker Shall display a blue flag
  - c. Cruising Beginners Shall display yellow flag

# Schedule of Races:

A) There will be 6 races scheduled for each class. 3 on RCRA Courses and 3 on NPSA Courses

RCRA Course: June 1 – June 15 NPSA Corse: June 22 – July 6

- **B)** All races will be held during four series on the dates below. The **Start Sequence** will be conducted in accordance with **Rule 26** on page 6. The **Start Times** are listed in Sections 2, 3 and 4 of Club Protocol also on page 7.
- C) The classes will rendezvous at the Committee Boat in Old Road Bay near NPSA "PW6" or RCRA "A" on the night of each race. The warning signal is intended to be sounded each Wednesday at 6:30 6:45pm p.m. Class rendezvous for Early Summer Series and Late Summer Series will occur 15 minutes later at 6:45 p.m.

# **Racing Area:**

The intended racing area is the area generally encompassing Old Road Bay, portions of the Patapsco River and the Chesapeake Bay. <u>for the NPSA course</u>. See attached charts <u>RCRA Courses generally encompassing portions of the Patapsco River south of the Channel between Fort Smallwood</u>, <u>Key Bridge and entrance to Stoney Creek</u>.

## Marks:

The marks will consist of the existing government buoys and day markers located in the racing area as defined in the Mark Definitions at Page 3 and the Chart on Page 17. attached

# Courses:

- A) The courses will be set as described <u>as attached on Page 16 18 of this document</u>. Courses will be indicated by posting a white banner with black letters on the lifelines or pulpits of the Race Committee Boat.
- **B)** Spinnaker class may have an alternate course, which will start with an S followed by letters A F, followed by a number 1 3. The alternate course will be posted to the right of the single letter courses.
  - a. Letters A-F identify the course noted on page 17 attached
  - b. The number identifies the number of circuits (one upwind and one downwind leg is a single circuit).
  - c. The race committee will attempt to run a windward / leeward course two (2) times per series.
- C) Old Road Bay Lighted Spar 2 (ORB2 Sunken Island Light) is considered a continuing obstruction. During a race this obstruction must be passed on the proper side. Never cross between this mark and the closest shore.
- **D)** Courses on the evening of scheduled cookouts will be short enough to allow most racers to finish and have sufficient time to attend the function. A pursuit race format will be used for evenings with a cookout. Please contact the race committee for your start time. Start times will be based on the PHRF rating of the boat and the distance of the course.
- E) Races 3 6, Fall Series 4, may finish at ORB2 as the evenings become shorter. Committee Boat will announce any changes in finishing mark by VHF.
- **F)** Orange Flag-The Orange Flag determines which side of committee boat to finish. Also shows if committee boat is on station. When boat is on station flag is up, when off station the orange flag will be lowered. Race Committee will announce on VHF 68 when off station and when back on.
- **G)** All courses that overlap the committee boat will take down the orange flag during the race signaling the committee boat is off station so sailors can sail through the starting area. When the committee boat puts the orange flag back up no one can sail through the starting area or finishing area. This is for safety to avoid collision. Any boat that does not honor this rule will be disqualified.

# The Start:

- A) See Page 6, Start Sequence
- **B)** The starting line is defined as a line drawn between an orange flag on the committee boat and the closest government mark. The starting buoy will be designated by posting either a green banner with an odd number or a red banner with an even number on the lifeline or pulpit adjacent to the course flag. Most starts will be at or near Penwood channel buoys PW6 or "A"
- C) All boats will check in with the committee boat before the start of the race. This may be accomplished by sailing close by and both parties acknowledging with a wave.
- **D)** After the warning signal all racers should stay off the radio unless contacted by the Committee Boat, are withdrawing, or are identifying themselves at the finish of a race. All racers must monitor the VHF Chanel 68 for incoming calls from the RC boat with information concerning change of course, change of finish line, or weather related abandonment, delays, or postponements.
- E) A boat whose class warning signal has not been made must keep clear of the starting area and of all boats whose warning signal has been made. Any boat repeatedly failing to keep clear of the starting area will be warned of a possible disqualification.
- F) The starting area is defined as a rectangular area five boat lengths out from each pin parallel to the starting line and 10 boat lengths perpendicular to the start line.
- **G)** A boat must have its engine off five minutes before the start of its class. A boat entering Old Road Bay with intent to race, but is more than ten minutes late for its start (upon entering the starting area), may use its engine to reach the starting area. Such a boat shall have its engine off before entering the starting area defined in F above.

# **Recalls:**

- A) The Race Committee will attempt to notify premature starts by VHF radio channel 68, shouting, or a voice hailer.
- B) A general recall will be signaled by five short blasts on a horn.
- C) After a general recall has been signaled, a new race will start with the class warning flag and the normal starting sequence will follow.

# **Shortening Courses:**

- A) The Commodore, Race Committee Chair, or Committee Boat may shorten the course at any racing mark or Government mark.
- **B)** The Committee Boat will position itself at the new mark to establish a finish line. Committee boat will alert the racing fleet of any finish line change by VHF at their discretion.
- C) A boat shall finish between the orange flag on the RC boat and the nearest mark.

# **Postponement and Abandonment:**

- A) Announcements concerning postponements, delays or abandonment due to dangerous weather conditions or other factors will be made by either by the Commodore, Race Committee Chair, or the Committee Boat, on VHF channel 68 on the quarter hour beginning at 5:45 pm. until 6:45 pm. The Commodore, Race Committee Chairperson or their designee has the authority to cancel the race.
- B) All races not started are postponed.
- C) Postponed races will restart with a class warning flag followed by the normal starting sequence.
- **D)** In the event of a MOB or a boat is in distress, all possible assistance will be rendered by racing participants. Such assistance will cause an immediate Abandonment of the race which will be announced as prescribed in A above. If there will be a Restart, it will be announced via the Normal Start Sequence depicted on page 8.

# The Finish:

- A) The finish line will be between the orange flag on the Race Committee Boat and the nearest government mark.
- **B)** After Dark Finishes After dark, all boats finishing are required to identify themselves to the Committee Boat as they are about to finish. Boats may do so by illuminating their sail numbers, using verbal contact, or making contact via VHF channel 68.
  - a. If the Committee Boat has left the finish line, a racing boat shall take its own time (elapsed and GPS time if available) when the finish mark appears within one boat length and abeam. If possible, note any boats finishing ahead or behind. Thereafter, report your time to the Race Committee.
  - b. Upon finishing a race, a boat shall stay clear of the finish line. Business with the Race Committee Boat will be conducted at the dock or, if urgent, on the off-course side of the Race Committee Boat.

# **Time Limit:**

At least one boat from each class must reach the finish line within two hours and fifteen minutes of the start of the race for the race to be scored. Otherwise the race shall be abandoned for the class in question.

# Withdrawal:

Any competitor that starts the race and subsequently withdraws is required to notify the Committee Boat at the earliest possible moment. This must be done by VHF radio channel 68 so the Committee Boat does not conduct search activities which may include notifying the Coast Guard.

# Scoring:

A) Scoring for a Series will use low point system.

- a. Individual races will be scored by the following: 1 point for 1<sup>st</sup>, 2 points for 2<sup>nd</sup>, 3 points for 3<sup>rd</sup>, etc.
- b. To qualify for a series a boat must compete in 1 race per series.
- c. To calculate an overall score for a series add the individual scores for each race less throw-outs. The boat with the lowest score wins the series.
- **B)** Throw Outs All classes may be allowed one throw out per each race series. Should scheduled races be canceled, abandoned or called due to time limits, resulting in less than 6 races completed per series, the following throw-out schedule will apply. Same schedule will apply to the number of races a boat can throw-out during a series if they finish less than 6 races in a series.

Completed Races	# of Throw- outs
6 or 5 races	One throw-out
4 or fewer	None

- C) Scoring Penalties: The following penalties will be used to calculate a boats score.
  - a. **DNF** (Did Not Finish) will be scored as the last boat to finish plus 1 and <u>may</u> be used as a throw-out.
  - b. **DNC** (Did Not Compete) will be scored as the number of boats registered in a series plus 1 and <u>may</u> be used as a throw-out
  - c. **DSQ** (Disqualified) will be scored as the number of boats registered in a series plus 1 and <u>may not</u> be used as a throw out.
  - d. **RAF** (Retire After Finish) will be scored as the last boat to finish plus 1 and <u>may</u> be used as a throw out.
- D) Qualifying for "Overall" placement:

a. A boat must "Qualify" in 2 series to qualify for "Overall".

**E)** Scoring for "Overall":

a.c. Overall will be scored as a single series with the number for throw outs allowed based on the number of throw outs allowed per series plus one.

F)D) Tie Score: In the event of a tie score at the end of a series, or for the "overall", the tie will be broken using the ISAF procedure.

## **Protests:**

- A) Captains must notify protested boat at the first reasonable opportunity and fly a red flag.
- B) Captains must also notify the Committee Boat of their protest at the time of their finish.
- C) Protests shall be heard after the race at Young's Boat Yard<u>or by video conference if RCRA boats are involved</u>.
- D) Failure to post in your defense will result in a score of "DSQ".

## Awards:

- A) Two awards per class when up to 3 boats qualify. 3 awards when 4 or more qualify.
- B) Awards will be presented to the winners of each series and to the overall class winners.
- C) All awards will be presented at an end-of- season Socks-On Party.

#### **VHF Radio Communications:**

- A) The Committee Boat will monitor VHF channel 68 at all times. Any competitor that drops out of a race must notify the Committee Boat.
- B) All racers must monitor VHF channel 68 for safety and pertinent race information.

## **Committee Boat:**

The Committee Boat will not interpret any aspect of these Instructions, any racing rules, or any course information during a race. Contacting the Committee Boat for these types of communications is discouraged.

# Advisories for all Classes:

- A) Even when you have the right-of-way, you are obligated to avoid a collision.
- B) A copy of these Racing Instructions should be aboard your boat during each race.

#### Start Sequence:

- A) The Committee Boat will announce on VHF channel 68 that, "The start sequence will begin in approximately one minute with the sounding of the Warning Horn and the raising the Warning Class Flag. There will be a ten (10) second countdown over the radio before the Warning" or words to that effect.
- **B)** There will be three starts: the first being the Spinnaker Class (White Flag) followed by the Non-Spinnaker class (Blue Flag) followed by the Cruising Class (Yellow Flag). 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.

TITLE	TIME	SOUND SECONDS	VISUAL SIGNAL	MINUTES TO START
WHITE WARNING	6:45	1	WHITE CLASS FLAG UP	5
PREPATORY	6:46	1	BLACK FLAG UP	4
	6:49	3	BLACK FLAG DOWN	1
WHITE <b>START</b>			WHITE CLASS FLAG DOWN	0
	6:50	1	BLUE CLASS FLAG UP	5
BLUE WARNING				
PREPATORY	6:51	1	BLACK FLAG UP	4
	6:54	3	BLACK FLAG DOWN	1
BLUE START			BLUE CLASS FLAG DOWN	0
YELLOW WARNING	6:55	1	YELLOW CLASS FLAG UP	5

# **Postponement and Abandonment:**

- A) Announcements concerning postponements, delays or abandonment due to dangerous weather conditions or other factors will be made from either the Committee Boat, or the Race Committee Chairman's boat on VHF channel 68 on the quarter hour beginning at 5:45 pm. until 7:00 pm. The Race Committee Chairperson or designee has the option to postpone, abandon, or delay the race.
- B) All races not started are postponed.
- C) Postponed races will restart with a class warning flag. Normal starting sequence will follow.

# **Club Protocol:**

- A) The START horn for the Spinnaker class is also the WARNING horn for the Non-Spinnaker class. The START horn for the Non-Spinnaker class is also the WARNING horn for the Cruising Beginner class.
- **B)** First and Fourth Series. Though not assured, the Start Sequence for the Spinnaker Class will begin at 6:45 pm and at 6:50 pm for the Non-Spinnaker Class and 6:40 for the Cruising Class.
- C) Second Series. Though not assured, the Start Sequence for the Spinnaker Class will begin at 6:45 pm and at 6:50 pm for the Non-Spinnaker Class and 6:55 for the Cruising Class.
- **D)** Third Series. Though not assured, the Start Sequence for the Non-Spinnaker Class will begin at 6:30 pm.
- E) If no boat of a class finishes within two hours (2:00) after the start of that class, the race for that class will be cancelled.
- F) Each boat must check-in with the Committee Boat prior to all races.

# **NPSA Course Mark Definitions**

Mark	Mark
Designation	Description
PW14	Penwood Wharf Channel NUN "14"
PW12	Penwood Wharf Channel NUN "12"
JAS Pt.	Near South end of Penwood Wharf
ORB2	Old Road Bay light "2" (Sunken Island)
PW8	Penwood Wharf Channel NUN "8"
PW7	Penwood Wharf Channel Can "7"
PW6	Penwood Wharf Channel Nun "6"
PW5	Penwood Wharf Channel Can "5"
PW3	Penwood Wharf Channel Can "3"
BC2B	Brewerton Channel Lighted Buoy "2B" QR
BC4	Brewerton Channel Lighted Buoy "4" FL R 2.5s
BC6	Brewerton Channel Lighted Buoy "6" FL R 4s
BC8	Brewerton Channel Lighted Buoy "8" FL R 4s
BC11	Brewerton Channel Lighted Buoy "11" FL G 6s
BC12	Brewerton Channel Lighted Buoy "12" Fl R 6s
BC14	Brewerton Channel Lighted Buoy "14" QR
OP2	Sparrows Point Ore Pier Channel NUN "2"
OP4	Sparrows Point Ore Pier Channel NUN "4"
Craighill	Lower Craighill Channel Range Front (lighthouse)
BCE10	Brewerton Extension Channel Lighted Buoy "10" FL R 2.5s
RCRA Mark	RCRA Private Mark Southeast of White Rocks
CHU23	Craighill Channel Upper Range Lighted Buoy "23" FL G 4s
CHU25	Craighill Channel Upper Range Lighted Buoy "25" Q G
CHU26	Craighill Channel Upper Range Lighted Buoy "26" FL R 6s
N2	Stony Creek Entrance Nun "2"

# NPSA Racing Marks Distance Matrix

Marks	PW12	JASPT	ORB2	PW8	PW7	PW6	PW5	PW3	BC2B	BC4	BC6	BC8	BC12	BC14	OP2	OP4	Craig	BCE10	CHU26
PW12		0.34	0.40	0.49	0.49	0.89	0.86	1.22	2.19	1.72	1.39	1.39	1.81	2.35	1.37	1.17	*	*	2.90
JASPT	0.34		0.32	0.27	0.23	0.66	0.60	0.96	2.09	1.57	1.16	1.06	1.53	1.77	1.05	0.86	*	3.01	2.50
ORB2	0.40	0.32		0.16	0.22	0.51	0.49	0.84	1.81	1.33	1.00	1.24	1.79	2.05	1.25	1.10	2.99	2.71	2.40
PW8	0.49	0.27	0.16		0.07	0.41	0.37	0.73	1.82	1.30	0.91	1.08	1.65	1.91	1.09	0.95	3.09	2.75	2.30
PW7	0.49	0.23	0.22	0.07		0.43	0.38	0.75	1.87	1.34	0.94	1.03	1.58	1.85	1.03	0.88	3.16	2.81	2.40
PW6	0.89	0.66	0.51	0.41	0.43		0.07	0.33	1.51	0.95	0.50	1.03	1.80	1.99	1.08	1.00	2.97	2.48	2.05
PW5	0.86	0.60	0.49	0.37	0.38	0.07		0.37	1.58	1.01	0.56	0.98	1.63	1.93	1.02	0.94	3.04	2.55	2.15
PW3	1.22	.96	.84	.73	.75	.33	.37		1.36	.76	.22	1.04	1.70	2.05	1.11	1.10	3.00	2.36	1.85
BC2B	2.19	2.09	1.81	1.82	1.87	1.51	1.58	1.36		0.60	1.16	2.39	3.09	3.40	2.46	2.46	1.87	1.00	0.56
BC4	1.72	1.57	1.33	1.30	1.34	0.95	1.01	0.76	0.60		0.56	1.79	2.49	2.80	1.86	1.86	2.35	1.68	1.10
BC6	1.39	1.16	1.00	0.91	0.94	0.50	0.56	0.22	1.60	0.56		1.23	1.93	2.24	1.30	1.31	2.85	2.16	1.65
BC8	1.39	1.06	1.24	1.08	1.03	1.03	0.98	1.04	2.39	1.79	1.23		0.70	1.01	0.09	0.28	4.00	3.39	2.90
BC12	1.81	1.53	1.79	1.65	1.58	1.80	1.63	1.70	3.09	2.49	1.93	0.70		0.32	0.63	0.71	4.67	4.09	3.70
BC14	2.35	1.77	2.05	1.91	1.85	1.99	1.93	2.05	3.40	2.80	2.24	1.01	0.32		0.94	0.99	4.96	4.40	4.00
OP2	1.37	1.05	1.25	1.09	1.03	1.08	1.02	1.11	2.46	1.86	1.30	0.09	0.63	0.94		0.22	4.05	3.46	3.00
OP4	1.17	0.86	1.10	0.95	0.88	1.00	0.94	1.10	2.46	1.86	1.31	0.28	0.71	0.99	0.22		3.97	3.45	3.00
Craigl	*	*	2.99	3.09	3.16	2.97	3.04	3.00	1.87	2.35	2.85	4.00	4.67	4.96	4.05	3.97		1.27	1.90
BCE10	*	3.01	2.71	2.75	2.81	2.48	2.55	2.36	1.00	1.68	2.16	3.39	4.09	4.40	3.46	3.45	1.27		0.72
CHU26	2.90	2.50	2.40	2.30	2.40	2.05	2.15	1.85	0.56	1.10	1.65	2.90	3.70	4.0	3.00	3.00	1.90	0.72	

Un-Navigable course line

# NPSA Racing Marks Magnetic Bearing Matrix

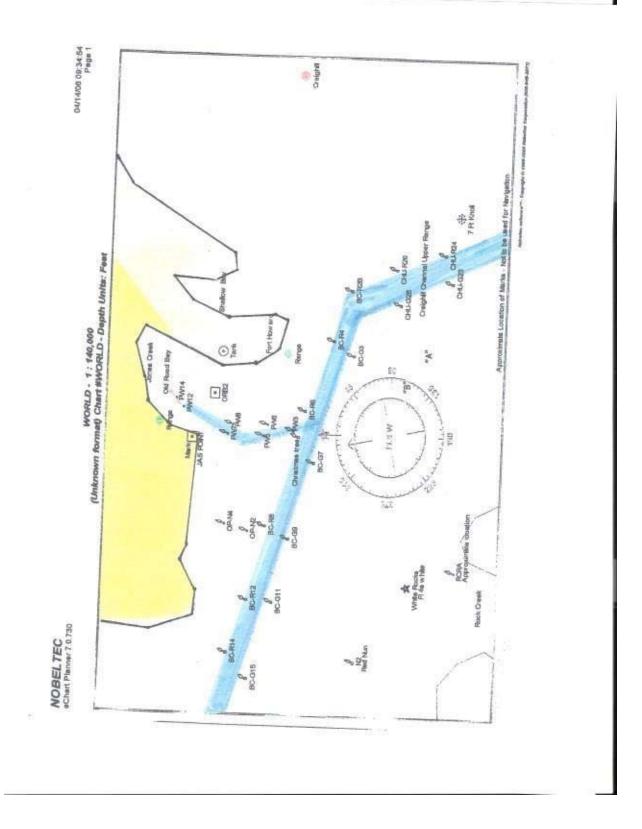
Marks	PW12	JASPT	ORB2	PW8	PW7	PW6	PW5	BC2B	BC4	BC6	BC8	BC12	BC14	OP2	OP4	Craig	PW3	BCE10	CHU 26
PW12		047	357	015	023	010	014	338	349	006	058	079	086	062	066	*	012	*	*
JASPT	227		303	334	346	352	356	329	339	355	062	085	092	067	074	*	000	320	*
ORB2	177	123		064	077	020	028	334	347	009	075	091	097	079	087	297	019	322	154
PW8	195	154	244		110	003	013	328	339	001	076	094	099	081	090	295	101	319	148
PW7	203	166	257	290		355	003	327	337	357	074	093	099	079	089	295	005	318	149
PW6	190	172	200	183	175		128	319	329	358	098	108	111	103	114	288	017	313	143
PW5	194	176	208	193	183	308		319	328	353	096	107	110	101	113	288	007	312	*
BC2B	158	149	154	148	147	148	139		124	123	123	123	123	124	129	262	128	302	*
BC4	169	159	167	159	157	150	148	304		123	123	122	123	124	131	272	131	303	*
BC6	186	175	189	181	177	179	173	303	303		122	122	123	125	135	278	150	303	*
BC8	238	242	255	256	254	278	276	303	303	302		122	124	162	202	285	297	303	*
BC12	259	265	271	274	273	288	287	303	302	302	302		086	297	279	288	299	302	*
BC14	266	272	277	280	279	291	298	303	303	303	304	310		301	288	289	300	303	*
OP2	242	247	259	261	259	283	281	304	304	305	342	117	121		218	296	300	304	*
OP4	246	254	267	270	269	294	293	309	311	315	022	099	108	038		289	311	307	*
Craig	*	*	117	115	115	107	108	082	092	098	105	108	109	106	127		101	052	*
PW3	192	180	199	190	185	197	187	308	311	122	117	119	120	120	131	281		305	136
BCE10	*	140	142	139	138	132	132	112	122	123	123	122	123	123	127	232	125		*
CHU 26			334	330	329	325	324	*	*	*	*	*	*	*	*	*	*	*	

Additional bearings and distances. NOTE Only racing leg marks to and from are listed.

\* Un-Navigable course line

# **NPSA Mark Locations**

Mark	Latitude	Longitude
PW14	N39 12.600'	W076 27.500'
PW12	N39 12.538'	W076 27.494'
JASPT	N39 12.266'	W076 27.750'
ORB2	N39 12.148'	W076 27.370'
PW8	N39 12.050'	W076 27.539'
PW7	N39 12.060'	W076 27.624'
PW6	N39 11.645'	W076 27.478'
PW5	N39 11.684'	W076 27.553'
PW3	N39 11.317'	W076 27.517'
BC2B	N39 10.713'	W076 25.952'
BC4	N39 10.943'	W076 26.664'
BC6	N39 11.154'	W076 27.332'
BC8	N39 11.599'	W076 28.807'
BC9	N39 11.450'	W076 28.925'
BC11	N39 11.700'	W076 29.683'
BC12	N39 11.850'	W076 29.646'
BC14	N39 12.000'	W076 30.003'
OP2	N39 11.680'	W076 28.864'
OP4	N39 11.875'	W076 28.736'
Craighill	N39 11.316'	W076 23.670'
BCE10	N39 10.358'	W076 24.750'
CHU23	N39 09.317'	W076 25.133'
CHU25	N39 10.200'	W076 25.767'
CHU26	N39 10.283'	W076 25.617'
Α		See RCRA mark list
В		See RCRA mark list
Race Committee doe	s not take resp	onsibility for errors.

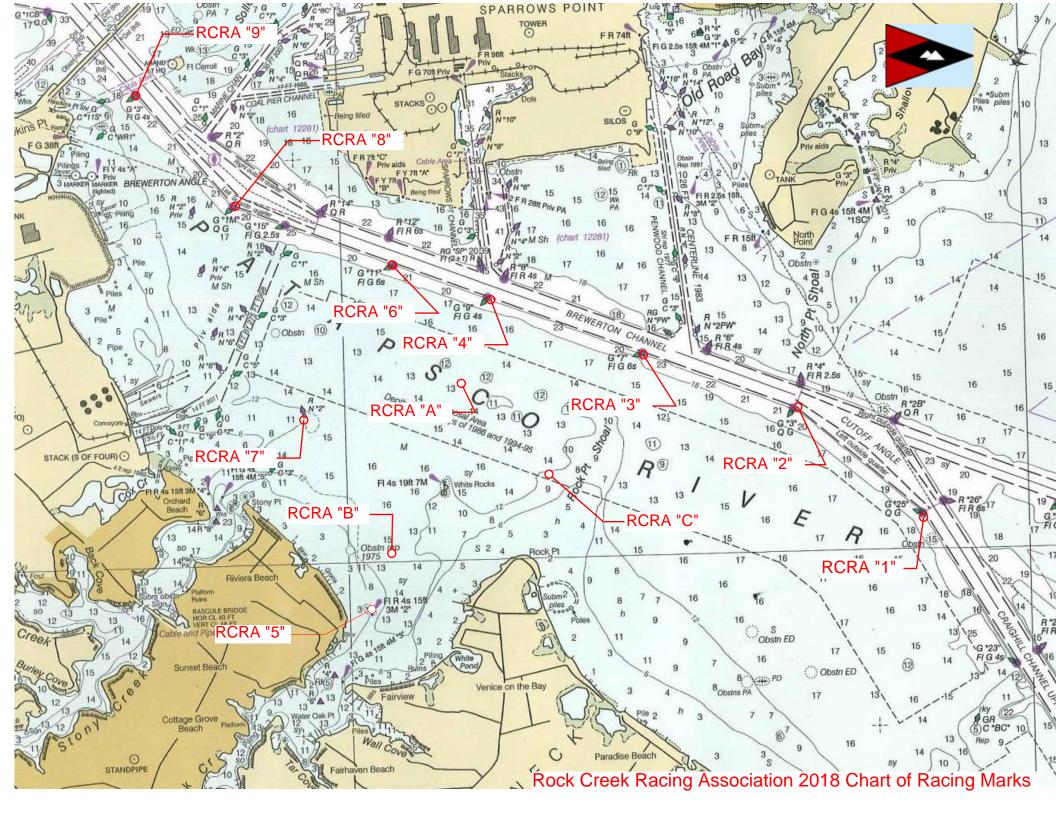


	ТО												
		Α	В	С	1	2	3	4	5	6	7	8	9
		N39 10.902	N39 10.117	N39 10.500	N39 10.212	N39 10.820	N39 11.165	N39 11.500	N39 09.697	N39 11.690	N39 10.845	N39 12.050	N39 12.700
		W076 29.291	W076 29.706	W076 28.500	W076 25.779	W076 26.706	W076 27.819	W076 28.921	W076 29.837	W076 29.621	W076 30.289	W076 30.777	W076 31.480
		YC "A"	YC "B"	YC "C"	G "25"	G "3"	G "7"	G "9"	R "2"	G "11"	RN "2"	G "1M"	G "3"
	Α		214°	123°	115°	104°	088°	037°	211°	354°	277°	303°	328°
_	~		0.85	0.74	2.81	2.01	1.18	0.67	1.28	0.83	0.78	1.63	2.47
	в	034°		067°	Do Not	084°	066°	035°	205°	014°	339°	325°	343°
	C -	0.85		1.01	Use	2.43	1.81	1.52	0.43	1.58	0.86	2.10	2.93
	C	303°	247°		098°	077°	039°	041°	232°	323°	283°	300°	313°
_	Ũ	0.74	1.01		2.15	1.45	0.84	1.04	1.31	1.47	1.44	2.36	3.19
	1	295°	Do Not	278°		321°	312°	309°	Do Not	308°	291°	290°	311°
	•	2.81	Use	2.15		0.90	1.80	2.80	Use	3.30	3.60	5.20	5.10
F	2	284°	265°	257°	141°		302°	302°	255°	302°	281°	280°	307°
П	2	2.01	2.43	1.45	0.90		0.93	1.84	2.65	2.50	2.80	3.40	4.15
R	3	268°	246°	219°	132°	122°		302°	236°	302°	271°	280°	309°
0	J	1.18	1.81	0.84	1.80	0.93		0.92	2.10	1.58	1.95	2.49	3.24
-	4	217°	215°	221°	129°	122°	122°		212°	302°	250°	280°	312°
Μ	•	0.67	1.52	1.04	2.80	1.84	0.92		1.91	0.65	1.26	1.54	2.32
	6	174°	194°	143°	128°	122°	122°	122°	193°		218°	280°	316°
	Ũ	0.83	1.58	1.47	3.30	2.50	1.57	0.64	2.00		0.98	0.97	1.70
	7	097°	159°	103°	111°	101°	091°	070°	172°	038°		331°	344°
	,	0.78	0.86	1.44	3.60	2.80	1.95	1.26	1.18	0.98		1.26	2.05
	8	123°	145°	120°	110°	100°	100°	100°	151°	100°	151°		309°
	v	1.63	2.10	2.36	5.20	3.40	2.49	1.54	2.46	0.97	1.26		0.85
	9	148°	163°	133°	131°	127°	129°	132°	167°	136°	164°	129°	
	5	2.47	2.93	3.19	5.10	4.16	3.24	2.32	3.25	1.70	2.06	0.85	
			0	Course in Mag	netic Degree	s	Distar	ice in Nautica	l Miles			re	ev 4/22/19 dmm

## 2022 RCRA Standard Courses - SERIES 2

STANDARD COURSES marks in red - leave to port marks in green - leave to starboard Wind RCRA RCRA RCRA **RCRA** RCRA Course Start Finish **Total Dist** Rock Creek Racing Association Direction Mark Mark Mark Mark Mark Non-Spin Α 4 7 В Α 3.60 Ν Α Α 4 8 В Α 5.15 Spin Non-Spin Α 3 6 3.51 Α В NE 8 7 Spin Α 3 Α 5.69 Non-Spin 2 4.02 Α Α Е С Spin Α 1 Α 5.64 Non-Spin Α 3 6 Α 3.51 Е D Spin Α 3 8 5.28 А Non-Spin Α С 6 Α 3.03 Ε SE Spin Α С 8 Α 4.71 Α В 4 Α 3.00 Non-Spin s F В 4 4 4.30 Spin Α Α Α В 3.65 Non-Spin Α 6 4 Α S G Spin Α В 6 3 Α 5.11 Non-Spin Α 7 3 Α 3.91 W н Spin Α 7 2 Α 5.58 Α 7 2.95 Non-Spin С Α w Т Α 7 С 3 4.24 Spin А Non-Spin Α 8 7 Α 3.67 NW J Spin Α 9 Α 4.94 3 3.51 Non-Spin Α 6 Α Κ NW 2 Α Α 5.27 Spin 6

Rev 5/27/22



# Second half of the series , NSPA Races 4, 5 and 6

	Wind	Class			Course	Marks	5		Rounding	Distance
Α	Ν	Spin	PW6	PW12	BC2B	PW6			Starboard	4.59
A	Ν	NonSpin	PW6	PW12	BC4	PW6			Starboard	3.56
В	Ν	Spin	PW6	PW12	BC4	BC6	PW6		Starboard	3.67
Р	Ν	NonSpin	PW6	PW12	BC4	BC6	PW6		Starboard	3.67
С	Ν	Spin	PW6	PW12	BC6	PW12	BC4	PW6	Starboard	6.34
	Ν	NonSpin	PW6	PW12	BC6	PW12	BC4	PW6	Starboard	6.34
D	E	Spin	PW6	CRAIG HILL LIGHT	PW6				Starboard	5.94
	E	NonSpin	PW6	CRAIG HILL LIGHT	PW6				Starboard	5.94
E	E	Spin	PW6	BC6	BC8	PW8	PW6		Starboard	3.22
	E	NonSpin	PW6	BC6	BC8	PW8	PW6		Starboard	3.22
F	SE	Spin	PW6	BC2B	BC14	PW6			Starboard	6.9
	SE	NonSpin	PW6	BC4	BC14	PW6			Starboard	5.74
G	SE	Spin	PW6	CHU26	PW12	PW6			Port	5.84
G	SE	NonSpin	PW6	BC2B	PW12	PW6			Port	4.59
н	SE	Spin	PW6	BC2B	PW6				Port	3.02
	SE	NonSpin	PW6	BC2B	PW6				Port	3.02
	S	Spin	PW6	BC4	PW12	BC4	PW12	PW6	Port	7
	S	NonSpin	PW6	BC6	PW12	BC6	PW12	PW6	Port	5.56
J	S	Spin	PW6	BC4	BC6	PW12	PW6		Starboard	3.79
J	S	NonSpin	PW6	BC4	BC6	PW12	PW6		Starboard	3.79
κ	S	Spin	PW6	BC6	CHU26	PW6	PW12		Starboard	5.09
n	S	NonSpin	PW6	PW3	BC4	PW6	PW12		Starboard	2.93
L	W	Spin	PW6	BC12	BC4	PW6			Port	5.24
	W	NonSpin	PW6	BC8	BC4	PW6			Port	3.77
м	W	Spin	PW6	BC14	BC4	PW12	PW6		Port	7.4
141	W	NonSpin	PW6	BC12	BC4	PW12	PW6		Port	6.9
Ν	W	Spin	PW6	BC14	PW8	PW6			Starboard	4.31
	W	NonSpin	PW6	BC14	PW8	PW6			Starboard	4.31