



HYC Mermaid Regatta

October 9, 2021

Organizing Authority: The Houston Yacht Club, Shoreacres, Texas

SAILING INSTRUCTIONS

1. RULES

- 1.1 The regatta will be governed by the rules as defined in *The Racing Rules of Sailing* (RRS) and the Galveston Bay PHRF Guidelines.
- 1.2 Appendices V will apply.
- 1.3 In case of conflict between the NOR and these SIs, the SIs will prevail. This changes RRS 63.7.

2. NOTICES TO COMPETITORS

- 2.1 Notices to Competitors will be posted on the HYC Race Information board ("Official Notice Board") located in the breezeway adjacent to the HYC offices. As a courtesy, Notices to Competitors may be communicated to competitors via the email address provided at registration or on-line at <http://www.regattanetwork.com/event/23206>.

3. CHANGES TO SAILING INSTRUCTIONS

- 3.1 Any change to these SIs will be posted on the Official Notice Board before 0900 hours on the day it will take effect. Any change to the Schedule of Races will be posted on the Official Notice Board by 2000 hours on the day before it will take effect.
- 3.2 As a courtesy, all changes to race documents may be communicated to competitors via the email address provided at registration and online at <http://www.regattanetwork.com/event/23206>. If no email address was provided by the competitors at registration, it is up to the competitor to check the Official Notice Board.

4. SIGNALS MADE ASHORE

- 4.1 Signals made ashore shall be displayed from the signal staff on the lawn of The Houston Yacht Club.
- 4.2 When flag AP is displayed ashore, "1 minute" is replaced with "not less than 60 minutes" under the "Race Signals" AP section (RRS).

5. SCHEDULE OF RACES

- 5.1 The race will be sailed according to the schedule in the Notice of Race.

Friday	Oct. 8, 2021	1900 Hrs	Competitors' Briefing by Zoom and in Person
Saturday	Oct. 9, 2021	1100 Hrs	First Warning
			Awards Ceremony approx. 2 hrs. after the <u>Race Committee Boat</u> enters the HYC harbor.

- 5.2 The link for the Zoom Competitors Meeting is:

Topic: Mermaid Regatta
Time: Oct 8, 2021 07:00 PM Central Time (US and Canada)

Join Zoom Meeting
<https://us02web.zoom.us/j/84095501257>

Meeting ID: 840 9550 1257
One tap mobile
+13462487799,,84095501257# US (Houston)
+16699006833,,84095501257# US (San Jose)

Dial by your location
+1 346 248 7799 US (Houston)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)

Meeting ID: 840 9550 1257
Find your local number: <https://us02web.zoom.us/u/kb1foxxNdz>

6. RACING AREA

- 6.1 All classes will sail around designated marks in the area bounded by the Bayport Ship Channel to the north, the San Leon shoreline to the south, the Houston Ship Channel to the east and the Seabrook shore line to the west. The racing area is shown Attachment A.
- 6.2 Boats shall not enter any Ship Channel. Ship Channels are designated as obstructions.

7. CHECK IN

- 7.1 Prior to the warning signal for the race, each boat shall check-in with, and be recognized by, the Race Committee (R/C) Signal Boat displaying the code Flag "L," by passing close astern, on starboard tack and hailing her sail number. Boats failing to check in will be scored Did Not Start without a hearing. This modifies RRS Appendix A5.

8. THE COURSES

- 8.1 Attachment A shows the courses, including the approximate angles between the legs, the order in which marks are to be passed, and the side on which each mark is to be left. The approximate course length is stated in Appendix B for each Course.
- 8.2 No later than the warning/preparatory signal, the Race Committee Signal Boat will display a numeral pennant indicating the course to be sailed (i.e., Course 1, 2, 3 or 4).

9. MARKS

- 9.1 The mark layout is shown and described in Attachment A.

10. THE START

- 10.1 The starting line will be between a staff displaying an orange flag on a race committee boat and the course side of the starting mark.
- 10.2 The Warning/Preparatory signal is the display of the orange line flag.
- 10.3 This is a pursuit race with GPS start times for each boat based on its PHRF rating following the 1100 hour start. The starting times for all competitors are listed in Attachment B. This modifies RRS 26.

- 10.4 The Race Committee may elect to trail a line (not to exceed 30') attached to a floating object behind the Race Committee boat or elect to attach a buoy to the boat's anchor marking the anchor and the anchor rode (of up to approximately 50'). The floating object and its line shall be part of the Race Committee boat and hitting the floating object or running over the line shall be treated as hitting the Race Committee boat.

11. RECALLS

- 11.1 Recalls will be signaled in accordance with RRS 29.
- 11.2 As a courtesy, the Race Committee will attempt to hail boats "On Course Side" (OCS) as soon as possible after the start. The Race Committee may use VHF radios or loud hailer.
- 11.3 The failure of electronic equipment, failure to hear a hail, order of hail, or delay in hailing will not be grounds for redress. This modifies RRS 62.1(a).
- 11.4 GPS time governs. All boats will be responsible for determining their exact start time, and no start times will be announced or signaled from the Race Committee boat. The Race Committee will monitor start times of each boat. Any OCS boats have the option of returning to the start line and restarting, or shall take the penalty as shown in the table below. The penalty will be assessed at scoring. This changes RRS 29.1 and Appendix A.

0 to 10 seconds early	Penalty of 30 seconds
10 to 30 seconds early	Penalty of 1 minute
30 to 1 min. early	Penalty of 3 minutes
1 min to 2 min. early	Penalty of 10 minutes
More than 2 min. early	Did Not Start

12. THE FINISH

- 12.1 The Finish Line will be between a staff displaying a blue flag on a Race Committee boat and the course side of the finish mark. The Race Committee will record the order of finish.

13. TIME LIMITS

- 13.1 The time limit for the first boat in its class to start, sail the course, and finish is **210 minutes** ("Race Time Limit").
- 13.2 Boats failing to finish within 30 minutes (the "Finishing Window") after the first boat in its class starts, sails the course, and finishes, will be scored Did Not Finish (DNF). The points awarded for boats scored DNF will be equal to the number of boats starting the race plus 2. This changes RRS 35, A5.1 and A 5.
- 13.3 Failure to meet any time limit(s) in this SI #13 will NOT be grounds for request for redress. This changes RRS 62.1(a).
- 13.4 If no boat in a class has finished within the Race Time Limit, the race for that boat class shall be abandoned.

14. PENALTIES

- 14.1 See SI 1.2.

15. PROTESTS AND REQUESTS FOR REDRESS

- 15.1 Intent to protest shall be signaled in accordance with RRS 61.1. The protesting boat shall also notify the Race Committee at the first reasonable opportunity and be acknowledged before leaving the finish area. This changes RRS 61.1.
- 15.2 Protests and requests for redress or reopening shall be written on forms available at the office of the Houston Yacht Club and delivered there within sixty (60) minutes following the arrival in the harbor of the Race Committee boat for the racing line involved. This time will be posted on the Official Notice Board. This changes RRS Appendix S13.2.

- 15.3 The times and locations of the protest hearings, along with the names of the boats involved, will be posted on the Official Notice Board no later than thirty (30) minutes after the protest time period. As a courtesy, competitors may be notified of the protest hearings in which they are parties or named as witnesses by telephone or text at the telephone number provided by the competitor at registration.
- 15.4 For the purpose of meeting obligations under US Sailing prescriptions concerning redress, notification of a redress hearing shall be by posting on the Official Notice Board for thirty (30) minutes. The requirement for written requests for attendance at the redress hearing will be satisfied by a signup sheet at the official protest table located at the HYC clubhouse lobby. No more than one person per boat may attend. **No request for reopening a hearing will be accepted after 6 p.m. October 9, 2021.** This changes RRS Appendix S13.1 and RRS 62.2.

16. SCORING

- 16.1 Scoring system of Appendix A shall apply.
- 16.2 One race shall be completed to constitute a series.
- 16.3 No scores will be excluded. This changes RRS A2.

17. SAFETY

- 17.1 Any boat that has checked in, and then withdraws before finishing the race, shall notify the Race Committee on the water, or, if that is not possible, The Houston Yacht Club office by telephone: **281-471-1255**. Failure to comply with this requirement may result in a score of Did Not Finish.
- 17.2 Boats shall not discharge trash into the water.
- 17.3 **DISCLAIMER OF LIABILITY:** Competitors participate in this regatta entirely at their own risk. See RRS 3, Decision to Race. The Organizing Authority will not accept liability for any damage, personal injury or death sustained in connection with, prior to, during, or after this regatta.

18. RADIO COMMUNICATIONS

- 18.1 Except in an emergency that threatens the safety or life and/or property, or to announce withdrawal from the race, a boat that is racing shall not make voice or data transmissions on **VHF Channel 68** and shall not receive voice or data communication that is not available to all boats.
- 18.2 The Race Committee will attempt to monitor **VHF Channel 68** and may use VHF radio to hail premature starters and the abandonment of races.

ATTACHMENT A

RACING AREA



COURSE MARKS

Mark	Approximate Coordinates	Description
Todville (Start/Finish or S/F)	29° 34.5' N, 094° 59.3' W	RC Signal Boat and Nearby Orange Floating Shape.
E	29° 35.8' N, 094° 56.9' W	The Low Range Marker (Upper Range "A") in Galveston Bay. The mark is an orange and white structure near Houston Ship Channel Marker #73, 0.23 NM NNW of the old low range.
H	29° 33.3' N, 094° 56.5' W	A platform located in Galveston bay approx 1.3 NM WSW of Houston Ship Channel Marker #65.
Bacliff (BC)	29° 32.7' N, 094° 59.1' W	An Anchored Yellow Tetrahedron.

COURSE 1

Leg	Mark	Approx. Distance (NM)	Approx. Bearing	Leave To:
Start (S)	Start (S)			
1	H	2.72	116°	Starboard
2	BC	2.34	255°	Starboard
3	H	2.34	75°	Port
Finish (F)	Finish (F)	2.72	296°	
Total		10.1		

COURSE 2

Leg	Mark	Approx. Distance (NM)	Approx. Bearing	Leave To:
Start (S)	Start (S)			
1	H	2.72	116°	Port
2	E	2.53	352°	Port
3	H	2.53	172°	Starboard
Finish (F)	Finish (F)	2.72	296°	
Total		10.5		

COURSE 3

Leg	Mark	Approx. Distance (NM)	Approx. Bearing	Leave To:
Start (S)	Start (S)			
1	H	2.72	116°	Starboard
2	BC	2.34	255°	Starboard
3	E	3.65	31°	Port
4	H	2.53	172°	Starboard
Finish (F)	Finish (F)	2.72	296°	
Total		13.9		

COURSE 4

Leg	Mark	Approx. Distance (NM)	Approx. Bearing	Leave To:
Start (S)	Start (S)			
1	H	2.72	116°	Port
2	E	2.53	352°	Port
Finish (F)	Finish (F)	2.46	238°	
Total		7.7		

Warning/Prep Signal	0:00:00
Course:	1
Nautical miles:	10.1

ATTACHMENT B

Course #1

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
175	0	0.0	0:00:00	129	7	44.6	0:07:44	83	15	29.2	0:15:29
174	0	10.1	0:00:10	128	7	54.7	0:07:54	82	15	39.3	0:15:39
173	0	20.2	0:00:20	127	8	4.8	0:08:04	81	15	49.4	0:15:49
172	0	30.3	0:00:30	126	8	14.9	0:08:14	80	15	59.5	0:15:59
171	0	40.4	0:00:40	125	8	25.0	0:08:25	79	16	9.6	0:16:09
170	0	50.5	0:00:50	124	8	35.1	0:08:35	78	16	19.7	0:16:19
169	1	0.6	0:01:00	123	8	45.2	0:08:45	77	16	29.8	0:16:29
168	1	10.7	0:01:10	122	8	55.3	0:08:55	76	16	39.9	0:16:39
167	1	20.8	0:01:20	121	9	5.4	0:09:05	75	16	50.0	0:16:50
166	1	30.9	0:01:30	120	9	15.5	0:09:15	74	17	0.1	0:17:00
165	1	41.0	0:01:41	119	9	25.6	0:09:25	73	17	10.2	0:17:10
164	1	51.1	0:01:51	118	9	35.7	0:09:35	72	17	20.3	0:17:20
163	2	1.2	0:02:01	117	9	45.8	0:09:45	71	17	30.4	0:17:30
162	2	11.3	0:02:11	116	9	55.9	0:09:55	70	17	40.5	0:17:40
161	2	21.4	0:02:21	115	10	6.0	0:10:06	69	17	50.6	0:17:50
160	2	31.5	0:02:31	114	10	16.1	0:10:16	68	18	0.7	0:18:00
159	2	41.6	0:02:41	113	10	26.2	0:10:26	67	18	10.8	0:18:10
158	2	51.7	0:02:51	112	10	36.3	0:10:36	66	18	20.9	0:18:20
157	3	1.8	0:03:01	111	10	46.4	0:10:46	65	18	31.0	0:18:31
156	3	11.9	0:03:11	110	10	56.5	0:10:56	64	18	41.1	0:18:41
155	3	22.0	0:03:22	109	11	6.6	0:11:06	63	18	51.2	0:18:51
154	3	32.1	0:03:32	108	11	16.7	0:11:16	62	19	1.3	0:19:01
153	3	42.2	0:03:42	107	11	26.8	0:11:26	61	19	11.4	0:19:11
152	3	52.3	0:03:52	106	11	36.9	0:11:36	60	19	21.5	0:19:21
151	4	2.4	0:04:02	105	11	47.0	0:11:47	59	19	31.6	0:19:31
150	4	12.5	0:04:12	104	11	57.1	0:11:57	58	19	41.7	0:19:41
149	4	22.6	0:04:22	103	12	7.2	0:12:07	57	19	51.8	0:19:51
148	4	32.7	0:04:32	102	12	17.3	0:12:17	56	20	1.9	0:20:01
147	4	42.8	0:04:42	101	12	27.4	0:12:27	55	20	12.0	0:20:12
146	4	52.9	0:04:52	100	12	37.5	0:12:37	54	20	22.1	0:20:22
145	5	3.0	0:05:03	99	12	47.6	0:12:47	53	20	32.2	0:20:32
144	5	13.1	0:05:13	98	12	57.7	0:12:57	52	20	42.3	0:20:42
143	5	23.2	0:05:23	97	13	7.8	0:13:07	51	20	52.4	0:20:52
142	5	33.3	0:05:33	96	13	17.9	0:13:17	50	21	2.5	0:21:02
141	5	43.4	0:05:43	95	13	28.0	0:13:28	49	21	12.6	0:21:12
140	5	53.5	0:05:53	94	13	38.1	0:13:38	48	21	22.7	0:21:22
139	6	3.6	0:06:03	93	13	48.2	0:13:48	47	21	32.8	0:21:32
138	6	13.7	0:06:13	92	13	58.3	0:13:58	46	21	42.9	0:21:42
137	6	23.8	0:06:23	91	14	8.4	0:14:08	45	21	53.0	0:21:53
136	6	33.9	0:06:33	90	14	18.5	0:14:18	44	22	3.1	0:22:03
135	6	44.0	0:06:44	89	14	28.6	0:14:28	43	22	13.2	0:22:13
134	6	54.1	0:06:54	88	14	38.7	0:14:38	42	22	23.3	0:22:23
133	7	4.2	0:07:04	87	14	48.8	0:14:48	41	22	33.4	0:22:33
132	7	14.3	0:07:14	86	14	58.9	0:14:58	40	22	43.5	0:22:43
131	7	24.4	0:07:24	85	15	9.0	0:15:09	39	22	53.6	0:22:53
130	7	34.5	0:07:34	84	15	19.1	0:15:19	38	23	3.7	0:23:03

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
37	23	13.8	0:23:13	-10	31	8.5	0:31:08	-57	39	3.2	0:39:03
36	23	23.9	0:23:23	-11	31	18.6	0:31:18	-58	39	13.3	0:39:13
35	23	34.0	0:23:34	-12	31	28.7	0:31:28	-59	39	23.4	0:39:23
34	23	44.1	0:23:44	-13	31	38.8	0:31:38	-60	39	33.5	0:39:33
33	23	54.2	0:23:54	-14	31	48.9	0:31:48	-61	39	43.6	0:39:43
32	24	4.3	0:24:04	-15	31	59.0	0:31:59	-62	39	53.7	0:39:53
31	24	14.4	0:24:14	-16	32	9.1	0:32:09	-63	40	3.8	0:40:03
30	24	24.5	0:24:24	-17	32	19.2	0:32:19	-64	40	13.9	0:40:13
29	24	34.6	0:24:34	-18	32	29.3	0:32:29	-65	40	24.0	0:40:24
28	24	44.7	0:24:44	-19	32	39.4	0:32:39	-66	40	34.1	0:40:34
27	24	54.8	0:24:54	-20	32	49.5	0:32:49	-67	40	44.2	0:40:44
26	25	4.9	0:25:04	-21	32	59.6	0:32:59	-68	40	54.3	0:40:54
25	25	15.0	0:25:15	-22	33	9.7	0:33:09	-69	41	4.4	0:41:04
24	25	25.1	0:25:25	-23	33	19.8	0:33:19	-70	41	14.5	0:41:14
23	25	35.2	0:25:35	-24	33	29.9	0:33:29	-71	41	24.6	0:41:24
22	25	45.3	0:25:45	-25	33	40.0	0:33:40	-72	41	34.7	0:41:34
21	25	55.4	0:25:55	-26	33	50.1	0:33:50	-73	41	44.8	0:41:44
20	26	5.5	0:26:05	-27	34	0.2	0:34:00	-74	41	54.9	0:41:54
19	26	15.6	0:26:15	-28	34	10.3	0:34:10	-75	42	5.0	0:42:05
18	26	25.7	0:26:25	-29	34	20.4	0:34:20				
17	26	35.8	0:26:35	-30	34	30.5	0:34:30				
16	26	45.9	0:26:45	-31	34	40.6	0:34:40				
15	26	56.0	0:26:56	-32	34	50.7	0:34:50				
14	27	6.1	0:27:06	-33	35	0.8	0:35:00				
13	27	16.2	0:27:16	-34	35	10.9	0:35:10				
12	27	26.3	0:27:26	-35	35	21.0	0:35:21				
11	27	36.4	0:27:36	-36	35	31.1	0:35:31				
10	27	46.5	0:27:46	-37	35	41.2	0:35:41				
9	27	56.6	0:27:56	-38	35	51.3	0:35:51				
8	28	6.7	0:28:06	-39	36	1.4	0:36:01				
7	28	16.8	0:28:16	-40	36	11.5	0:36:11				
6	28	26.9	0:28:26	-41	36	21.6	0:36:21				
5	28	37.0	0:28:37	-42	36	31.7	0:36:31				
4	28	47.1	0:28:47	-43	36	41.8	0:36:41				
3	28	57.2	0:28:57	-44	36	51.9	0:36:51				
2	29	7.3	0:29:07	-45	37	2.0	0:37:02				
1	29	17.4	0:29:17	-46	37	12.1	0:37:12				
0	29	27.5	0:29:27	-47	37	22.2	0:37:22				
-1	29	37.6	0:29:37	-48	37	32.3	0:37:32				
-2	29	47.7	0:29:47	-49	37	42.4	0:37:42				
-3	29	57.8	0:29:57	-50	37	52.5	0:37:52				
-4	30	7.9	0:30:07	-51	38	2.6	0:38:02				
-5	30	18.0	0:30:18	-52	38	12.7	0:38:12				
-6	30	28.1	0:30:28	-53	38	22.8	0:38:22				
-7	30	38.2	0:30:38	-54	38	32.9	0:38:32				
-8	30	48.3	0:30:48	-55	38	43.0	0:38:43				
-9	30	58.4	0:30:58	-56	38	53.1	0:38:53				

END OF COURSE 1

Warning/Prep Signal	0:00:00
Course:	2
Nautical miles:	10.5

Course #2

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
175	0	0.0	0:00:00	129	8	3.0	0:08:03	83	16	6.0	0:16:06
174	0	10.5	0:00:10	128	8	13.5	0:08:13	82	16	16.5	0:16:16
173	0	21.0	0:00:21	127	8	24.0	0:08:24	81	16	27.0	0:16:27
172	0	31.5	0:00:31	126	8	34.5	0:08:34	80	16	37.5	0:16:37
171	0	42.0	0:00:42	125	8	45.0	0:08:45	79	16	48.0	0:16:48
170	0	52.5	0:00:52	124	8	55.5	0:08:55	78	16	58.5	0:16:58
169	1	3.0	0:01:03	123	9	6.0	0:09:06	77	17	9.0	0:17:09
168	1	13.5	0:01:13	122	9	16.5	0:09:16	76	17	19.5	0:17:19
167	1	24.0	0:01:24	121	9	27.0	0:09:27	75	17	30.0	0:17:30
166	1	34.5	0:01:34	120	9	37.5	0:09:37	74	17	40.5	0:17:40
165	1	45.0	0:01:45	119	9	48.0	0:09:48	73	17	51.0	0:17:51
164	1	55.5	0:01:55	118	9	58.5	0:09:58	72	18	1.5	0:18:01
163	2	6.0	0:02:06	117	10	9.0	0:10:09	71	18	12.0	0:18:12
162	2	16.5	0:02:16	116	10	19.5	0:10:19	70	18	22.5	0:18:22
161	2	27.0	0:02:27	115	10	30.0	0:10:30	69	18	33.0	0:18:33
160	2	37.5	0:02:37	114	10	40.5	0:10:40	68	18	43.5	0:18:43
159	2	48.0	0:02:48	113	10	51.0	0:10:51	67	18	54.0	0:18:54
158	2	58.5	0:02:58	112	11	1.5	0:11:01	66	19	4.5	0:19:04
157	3	9.0	0:03:09	111	11	12.0	0:11:12	65	19	15.0	0:19:15
156	3	19.5	0:03:19	110	11	22.5	0:11:22	64	19	25.5	0:19:25
155	3	30.0	0:03:30	109	11	33.0	0:11:33	63	19	36.0	0:19:36
154	3	40.5	0:03:40	108	11	43.5	0:11:43	62	19	46.5	0:19:46
153	3	51.0	0:03:51	107	11	54.0	0:11:54	61	19	57.0	0:19:57
152	4	1.5	0:04:01	106	12	4.5	0:12:04	60	20	7.5	0:20:07
151	4	12.0	0:04:12	105	12	15.0	0:12:15	59	20	18.0	0:20:18
150	4	22.5	0:04:22	104	12	25.5	0:12:25	58	20	28.5	0:20:28
149	4	33.0	0:04:33	103	12	36.0	0:12:36	57	20	39.0	0:20:39
148	4	43.5	0:04:43	102	12	46.5	0:12:46	56	20	49.5	0:20:49
147	4	54.0	0:04:54	101	12	57.0	0:12:57	55	21	0.0	0:21:00
146	5	4.5	0:05:04	100	13	7.5	0:13:07	54	21	10.5	0:21:10
145	5	15.0	0:05:15	99	13	18.0	0:13:18	53	21	21.0	0:21:21
144	5	25.5	0:05:25	98	13	28.5	0:13:28	52	21	31.5	0:21:31
143	5	36.0	0:05:36	97	13	39.0	0:13:39	51	21	42.0	0:21:42
142	5	46.5	0:05:46	96	13	49.5	0:13:49	50	21	52.5	0:21:52
141	5	57.0	0:05:57	95	14	0.0	0:14:00	49	22	3.0	0:22:03
140	6	7.5	0:06:07	94	14	10.5	0:14:10	48	22	13.5	0:22:13
139	6	18.0	0:06:18	93	14	21.0	0:14:21	47	22	24.0	0:22:24
138	6	28.5	0:06:28	92	14	31.5	0:14:31	46	22	34.5	0:22:34
137	6	39.0	0:06:39	91	14	42.0	0:14:42	45	22	45.0	0:22:45
136	6	49.5	0:06:49	90	14	52.5	0:14:52	44	22	55.5	0:22:55
135	7	0.0	0:07:00	89	15	3.0	0:15:03	43	23	6.0	0:23:06
134	7	10.5	0:07:10	88	15	13.5	0:15:13	42	23	16.5	0:23:16
133	7	21.0	0:07:21	87	15	24.0	0:15:24	41	23	27.0	0:23:27
132	7	31.5	0:07:31	86	15	34.5	0:15:34	40	23	37.5	0:23:37
131	7	42.0	0:07:42	85	15	45.0	0:15:45	39	23	48.0	0:23:48
130	7	52.5	0:07:52	84	15	55.5	0:15:55	38	23	58.5	0:23:58

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
37	24	9.0	0:24:09	-10	32	22.5	0:32:22	-57	40	36.0	0:40:36
36	24	19.5	0:24:19	-11	32	33.0	0:32:33	-58	40	46.5	0:40:46
35	24	30.0	0:24:30	-12	32	43.5	0:32:43	-59	40	57.0	0:40:57
34	24	40.5	0:24:40	-13	32	54.0	0:32:54	-60	41	7.5	0:41:07
33	24	51.0	0:24:51	-14	33	4.5	0:33:04	-61	41	18.0	0:41:18
32	25	1.5	0:25:01	-15	33	15.0	0:33:15	-62	41	28.5	0:41:28
31	25	12.0	0:25:12	-16	33	25.5	0:33:25	-63	41	39.0	0:41:39
30	25	22.5	0:25:22	-17	33	36.0	0:33:36	-64	41	49.5	0:41:49
29	25	33.0	0:25:33	-18	33	46.5	0:33:46	-65	42	0.0	0:42:00
28	25	43.5	0:25:43	-19	33	57.0	0:33:57	-66	42	10.5	0:42:10
27	25	54.0	0:25:54	-20	34	7.5	0:34:07	-67	42	21.0	0:42:21
26	26	4.5	0:26:04	-21	34	18.0	0:34:18	-68	42	31.5	0:42:31
25	26	15.0	0:26:15	-22	34	28.5	0:34:28	-69	42	42.0	0:42:42
24	26	25.5	0:26:25	-23	34	39.0	0:34:39	-70	42	52.5	0:42:52
23	26	36.0	0:26:36	-24	34	49.5	0:34:49	-71	43	3.0	0:43:03
22	26	46.5	0:26:46	-25	35	0.0	0:35:00	-72	43	13.5	0:43:13
21	26	57.0	0:26:57	-26	35	10.5	0:35:10	-73	43	24.0	0:43:24
20	27	7.5	0:27:07	-27	35	21.0	0:35:21	-74	43	34.5	0:43:34
19	27	18.0	0:27:18	-28	35	31.5	0:35:31	-75	43	45.0	0:43:45
18	27	28.5	0:27:28	-29	35	42.0	0:35:42				
17	27	39.0	0:27:39	-30	35	52.5	0:35:52				
16	27	49.5	0:27:49	-31	36	3.0	0:36:03				
15	28	0.0	0:28:00	-32	36	13.5	0:36:13				
14	28	10.5	0:28:10	-33	36	24.0	0:36:24				
13	28	21.0	0:28:21	-34	36	34.5	0:36:34				
12	28	31.5	0:28:31	-35	36	45.0	0:36:45				
11	28	42.0	0:28:42	-36	36	55.5	0:36:55				
10	28	52.5	0:28:52	-37	37	6.0	0:37:06				
9	29	3.0	0:29:03	-38	37	16.5	0:37:16				
8	29	13.5	0:29:13	-39	37	27.0	0:37:27				
7	29	24.0	0:29:24	-40	37	37.5	0:37:37				
6	29	34.5	0:29:34	-41	37	48.0	0:37:48				
5	29	45.0	0:29:45	-42	37	58.5	0:37:58				
4	29	55.5	0:29:55	-43	38	9.0	0:38:09				
3	30	6.0	0:30:06	-44	38	19.5	0:38:19				
2	30	16.5	0:30:16	-45	38	30.0	0:38:30				
1	30	27.0	0:30:27	-46	38	40.5	0:38:40				
0	30	37.5	0:30:37	-47	38	51.0	0:38:51				
-1	30	48.0	0:30:48	-48	39	1.5	0:39:01				
-2	30	58.5	0:30:58	-49	39	12.0	0:39:12				
-3	31	9.0	0:31:09	-50	39	22.5	0:39:22				
-4	31	19.5	0:31:19	-51	39	33.0	0:39:33				
-5	31	30.0	0:31:30	-52	39	43.5	0:39:43				
-6	31	40.5	0:31:40	-53	39	54.0	0:39:54				
-7	31	51.0	0:31:51	-54	40	4.5	0:40:04				
-8	32	1.5	0:32:01	-55	40	15.0	0:40:15				
-9	32	12.0	0:32:12	-56	40	25.5	0:40:25				

END OF COURSE 2

Warning/Prep Signal	0:00:00
Course:	3
Nautical miles:	13.96

Course #3

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
175	0	0.0	0:00:00	129	10	42.2	0:10:42	83	21	24.3	0:21:24
174	0	14.0	0:00:13	128	10	56.1	0:10:56	82	21	38.3	0:21:38
173	0	27.9	0:00:27	127	11	10.1	0:11:10	81	21	52.2	0:21:52
172	0	41.9	0:00:41	126	11	24.0	0:11:24	80	22	6.2	0:22:06
171	0	55.8	0:00:55	125	11	38.0	0:11:38	79	22	20.2	0:22:20
170	1	9.8	0:01:09	124	11	52.0	0:11:51	78	22	34.1	0:22:34
169	1	23.8	0:01:23	123	12	5.9	0:12:05	77	22	48.1	0:22:48
168	1	37.7	0:01:37	122	12	19.9	0:12:19	76	23	2.0	0:23:02
167	1	51.7	0:01:51	121	12	33.8	0:12:33	75	23	16.0	0:23:16
166	2	5.6	0:02:05	120	12	47.8	0:12:47	74	23	30.0	0:23:29
165	2	19.6	0:02:19	119	13	1.8	0:13:01	73	23	43.9	0:23:43
164	2	33.6	0:02:33	118	13	15.7	0:13:15	72	23	57.9	0:23:57
163	2	47.5	0:02:47	117	13	29.7	0:13:29	71	24	11.8	0:24:11
162	3	1.5	0:03:01	116	13	43.6	0:13:43	70	24	25.8	0:24:25
161	3	15.4	0:03:15	115	13	57.6	0:13:57	69	24	39.8	0:24:39
160	3	29.4	0:03:29	114	14	11.6	0:14:11	68	24	53.7	0:24:53
159	3	43.4	0:03:43	113	14	25.5	0:14:25	67	25	7.7	0:25:07
158	3	57.3	0:03:57	112	14	39.5	0:14:39	66	25	21.6	0:25:21
157	4	11.3	0:04:11	111	14	53.4	0:14:53	65	25	35.6	0:25:35
156	4	25.2	0:04:25	110	15	7.4	0:15:07	64	25	49.6	0:25:49
155	4	39.2	0:04:39	109	15	21.4	0:15:21	63	26	3.5	0:26:03
154	4	53.2	0:04:53	108	15	35.3	0:15:35	62	26	17.5	0:26:17
153	5	7.1	0:05:07	107	15	49.3	0:15:49	61	26	31.4	0:26:31
152	5	21.1	0:05:21	106	16	3.2	0:16:03	60	26	45.4	0:26:45
151	5	35.0	0:05:35	105	16	17.2	0:16:17	59	26	59.4	0:26:59
150	5	49.0	0:05:49	104	16	31.2	0:16:31	58	27	13.3	0:27:13
149	6	3.0	0:06:02	103	16	45.1	0:16:45	57	27	27.3	0:27:27
148	6	16.9	0:06:16	102	16	59.1	0:16:59	56	27	41.2	0:27:41
147	6	30.9	0:06:30	101	17	13.0	0:17:13	55	27	55.2	0:27:55
146	6	44.8	0:06:44	100	17	27.0	0:17:27	54	28	9.2	0:28:09
145	6	58.8	0:06:58	99	17	41.0	0:17:40	53	28	23.1	0:28:23
144	7	12.8	0:07:12	98	17	54.9	0:17:54	52	28	37.1	0:28:37
143	7	26.7	0:07:26	97	18	8.9	0:18:08	51	28	51.0	0:28:51
142	7	40.7	0:07:40	96	18	22.8	0:18:22	50	29	5.0	0:29:05
141	7	54.6	0:07:54	95	18	36.8	0:18:36	49	29	19.0	0:29:18
140	8	8.6	0:08:08	94	18	50.8	0:18:50	48	29	32.9	0:29:32
139	8	22.6	0:08:22	93	19	4.7	0:19:04	47	29	46.9	0:29:46
138	8	36.5	0:08:36	92	19	18.7	0:19:18	46	30	0.8	0:30:00
137	8	50.5	0:08:50	91	19	32.6	0:19:32	45	30	14.8	0:30:14
136	9	4.4	0:09:04	90	19	46.6	0:19:46	44	30	28.8	0:30:28
135	9	18.4	0:09:18	89	20	0.6	0:20:00	43	30	42.7	0:30:42
134	9	32.4	0:09:32	88	20	14.5	0:20:14	42	30	56.7	0:30:56
133	9	46.3	0:09:46	87	20	28.5	0:20:28	41	31	10.6	0:31:10
132	10	0.3	0:10:00	86	20	42.4	0:20:42	40	31	24.6	0:31:24
131	10	14.2	0:10:14	85	20	56.4	0:20:56	39	31	38.6	0:31:38
130	10	28.2	0:10:28	84	21	10.4	0:21:10	38	31	52.5	0:31:52

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
37	32	6.5	0:32:06	-10	43	2.6	0:43:02	-57	53	58.7	0:53:58
36	32	20.4	0:32:20	-11	43	16.6	0:43:16	-58	54	12.7	0:54:12
35	32	34.4	0:32:34	-12	43	30.5	0:43:30	-59	54	26.6	0:54:26
34	32	48.4	0:32:48	-13	43	44.5	0:43:44	-60	54	40.6	0:54:40
33	33	2.3	0:33:02	-14	43	58.4	0:43:58	-61	54	54.6	0:54:54
32	33	16.3	0:33:16	-15	44	12.4	0:44:12	-62	55	8.5	0:55:08
31	33	30.2	0:33:30	-16	44	26.4	0:44:26	-63	55	22.5	0:55:22
30	33	44.2	0:33:44	-17	44	40.3	0:44:40	-64	55	36.4	0:55:36
29	33	58.2	0:33:58	-18	44	54.3	0:44:54	-65	55	50.4	0:55:50
28	34	12.1	0:34:12	-19	45	8.2	0:45:08	-66	56	4.4	0:56:04
27	34	26.1	0:34:26	-20	45	22.2	0:45:22	-67	56	18.3	0:56:18
26	34	40.0	0:34:40	-21	45	36.2	0:45:36	-68	56	32.3	0:56:32
25	34	54.0	0:34:54	-22	45	50.1	0:45:50	-69	56	46.2	0:56:46
24	35	8.0	0:35:07	-23	46	4.1	0:46:04	-70	57	0.2	0:57:00
23	35	21.9	0:35:21	-24	46	18.0	0:46:18	-71	57	14.2	0:57:14
22	35	35.9	0:35:35	-25	46	32.0	0:46:32	-72	57	28.1	0:57:28
21	35	49.8	0:35:49	-26	46	46.0	0:46:45	-73	57	42.1	0:57:42
20	36	3.8	0:36:03	-27	46	59.9	0:46:59	-74	57	56.0	0:57:56
19	36	17.8	0:36:17	-28	47	13.9	0:47:13	-75	58	10.0	0:58:10
18	36	31.7	0:36:31	-29	47	27.8	0:47:27				
17	36	45.7	0:36:45	-30	47	41.8	0:47:41				
16	36	59.6	0:36:59	-31	47	55.8	0:47:55				
15	37	13.6	0:37:13	-32	48	9.7	0:48:09				
14	37	27.6	0:37:27	-33	48	23.7	0:48:23				
13	37	41.5	0:37:41	-34	48	37.6	0:48:37				
12	37	55.5	0:37:55	-35	48	51.6	0:48:51				
11	38	9.4	0:38:09	-36	49	5.6	0:49:05				
10	38	23.4	0:38:23	-37	49	19.5	0:49:19				
9	38	37.4	0:38:37	-38	49	33.5	0:49:33				
8	38	51.3	0:38:51	-39	49	47.4	0:49:47				
7	39	5.3	0:39:05	-40	50	1.4	0:50:01				
6	39	19.2	0:39:19	-41	50	15.4	0:50:15				
5	39	33.2	0:39:33	-42	50	29.3	0:50:29				
4	39	47.2	0:39:47	-43	50	43.3	0:50:43				
3	40	1.1	0:40:01	-44	50	57.2	0:50:57				
2	40	15.1	0:40:15	-45	51	11.2	0:51:11				
1	40	29.0	0:40:29	-46	51	25.2	0:51:25				
0	40	43.0	0:40:43	-47	51	39.1	0:51:39				
-1	40	57.0	0:40:56	-48	51	53.1	0:51:53				
-2	41	10.9	0:41:10	-49	52	7.0	0:52:07				
-3	41	24.9	0:41:24	-50	52	21.0	0:52:21				
-4	41	38.8	0:41:38	-51	52	35.0	0:52:34				
-5	41	52.8	0:41:52	-52	52	48.9	0:52:48				
-6	42	6.8	0:42:06	-53	53	2.9	0:53:02				
-7	42	20.7	0:42:20	-54	53	16.8	0:53:16				
-8	42	34.7	0:42:34	-55	53	30.8	0:53:30				
-9	42	48.6	0:42:48	-56	53	44.8	0:53:44				

END OF COURSE 3

Warning/Prep Signal	0:00:00
Course:	4
Nautical miles:	7.7

Course #4

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
175	0	0.0	0:00:00	129	5	54.2	0:05:54	83	11	48.4	0:11:48
174	0	7.7	0:00:07	128	6	1.9	0:06:01	82	11	56.1	0:11:56
173	0	15.4	0:00:15	127	6	9.6	0:06:09	81	12	3.8	0:12:03
172	0	23.1	0:00:23	126	6	17.3	0:06:17	80	12	11.5	0:12:11
171	0	30.8	0:00:30	125	6	25.0	0:06:25	79	12	19.2	0:12:19
170	0	38.5	0:00:38	124	6	32.7	0:06:32	78	12	26.9	0:12:26
169	0	46.2	0:00:46	123	6	40.4	0:06:40	77	12	34.6	0:12:34
168	0	53.9	0:00:53	122	6	48.1	0:06:48	76	12	42.3	0:12:42
167	1	1.6	0:01:01	121	6	55.8	0:06:55	75	12	50.0	0:12:50
166	1	9.3	0:01:09	120	7	3.5	0:07:03	74	12	57.7	0:12:57
165	1	17.0	0:01:17	119	7	11.2	0:07:11	73	13	5.4	0:13:05
164	1	24.7	0:01:24	118	7	18.9	0:07:18	72	13	13.1	0:13:13
163	1	32.4	0:01:32	117	7	26.6	0:07:26	71	13	20.8	0:13:20
162	1	40.1	0:01:40	116	7	34.3	0:07:34	70	13	28.5	0:13:28
161	1	47.8	0:01:47	115	7	42.0	0:07:42	69	13	36.2	0:13:36
160	1	55.5	0:01:55	114	7	49.7	0:07:49	68	13	43.9	0:13:43
159	2	3.2	0:02:03	113	7	57.4	0:07:57	67	13	51.6	0:13:51
158	2	10.9	0:02:10	112	8	5.1	0:08:05	66	13	59.3	0:13:59
157	2	18.6	0:02:18	111	8	12.8	0:08:12	65	14	7.0	0:14:07
156	2	26.3	0:02:26	110	8	20.5	0:08:20	64	14	14.7	0:14:14
155	2	34.0	0:02:34	109	8	28.2	0:08:28	63	14	22.4	0:14:22
154	2	41.7	0:02:41	108	8	35.9	0:08:35	62	14	30.1	0:14:30
153	2	49.4	0:02:49	107	8	43.6	0:08:43	61	14	37.8	0:14:37
152	2	57.1	0:02:57	106	8	51.3	0:08:51	60	14	45.5	0:14:45
151	3	4.8	0:03:04	105	8	59.0	0:08:59	59	14	53.2	0:14:53
150	3	12.5	0:03:12	104	9	6.7	0:09:06	58	15	0.9	0:15:00
149	3	20.2	0:03:20	103	9	14.4	0:09:14	57	15	8.6	0:15:08
148	3	27.9	0:03:27	102	9	22.1	0:09:22	56	15	16.3	0:15:16
147	3	35.6	0:03:35	101	9	29.8	0:09:29	55	15	24.0	0:15:24
146	3	43.3	0:03:43	100	9	37.5	0:09:37	54	15	31.7	0:15:31
145	3	51.0	0:03:51	99	9	45.2	0:09:45	53	15	39.4	0:15:39
144	3	58.7	0:03:58	98	9	52.9	0:09:52	52	15	47.1	0:15:47
143	4	6.4	0:04:06	97	10	0.6	0:10:00	51	15	54.8	0:15:54
142	4	14.1	0:04:14	96	10	8.3	0:10:08	50	16	2.5	0:16:02
141	4	21.8	0:04:21	95	10	16.0	0:10:16	49	16	10.2	0:16:10
140	4	29.5	0:04:29	94	10	23.7	0:10:23	48	16	17.9	0:16:17
139	4	37.2	0:04:37	93	10	31.4	0:10:31	47	16	25.6	0:16:25
138	4	44.9	0:04:44	92	10	39.1	0:10:39	46	16	33.3	0:16:33
137	4	52.6	0:04:52	91	10	46.8	0:10:46	45	16	41.0	0:16:41
136	5	0.3	0:05:00	90	10	54.5	0:10:54	44	16	48.7	0:16:48
135	5	8.0	0:05:08	89	11	2.2	0:11:02	43	16	56.4	0:16:56
134	5	15.7	0:05:15	88	11	9.9	0:11:09	42	17	4.1	0:17:04
133	5	23.4	0:05:23	87	11	17.6	0:11:17	41	17	11.8	0:17:11
132	5	31.1	0:05:31	86	11	25.3	0:11:25	40	17	19.5	0:17:19
131	5	38.8	0:05:38	85	11	33.0	0:11:33	39	17	27.2	0:17:27
130	5	46.5	0:05:46	84	11	40.7	0:11:40	38	17	34.9	0:17:34

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
37	17	42.6	0:17:42	-10	23	44.5	0:23:44	-57	29	46.4	0:29:46
36	17	50.3	0:17:50	-11	23	52.2	0:23:52	-58	29	54.1	0:29:54
35	17	58.0	0:17:58	-12	23	59.9	0:23:59	-59	30	1.8	0:30:01
34	18	5.7	0:18:05	-13	24	7.6	0:24:07	-60	30	9.5	0:30:09
33	18	13.4	0:18:13	-14	24	15.3	0:24:15	-61	30	17.2	0:30:17
32	18	21.1	0:18:21	-15	24	23.0	0:24:23	-62	30	24.9	0:30:24
31	18	28.8	0:18:28	-16	24	30.7	0:24:30	-63	30	32.6	0:30:32
30	18	36.5	0:18:36	-17	24	38.4	0:24:38	-64	30	40.3	0:30:40
29	18	44.2	0:18:44	-18	24	46.1	0:24:46	-65	30	48.0	0:30:48
28	18	51.9	0:18:51	-19	24	53.8	0:24:53	-66	30	55.7	0:30:55
27	18	59.6	0:18:59	-20	25	1.5	0:25:01	-67	31	3.4	0:31:03
26	19	7.3	0:19:07	-21	25	9.2	0:25:09	-68	31	11.1	0:31:11
25	19	15.0	0:19:15	-22	25	16.9	0:25:16	-69	31	18.8	0:31:18
24	19	22.7	0:19:22	-23	25	24.6	0:25:24	-70	31	26.5	0:31:26
23	19	30.4	0:19:30	-24	25	32.3	0:25:32	-71	31	34.2	0:31:34
22	19	38.1	0:19:38	-25	25	40.0	0:25:40	-72	31	41.9	0:31:41
21	19	45.8	0:19:45	-26	25	47.7	0:25:47	-73	31	49.6	0:31:49
20	19	53.5	0:19:53	-27	25	55.4	0:25:55	-74	31	57.3	0:31:57
19	20	1.2	0:20:01	-28	26	3.1	0:26:03	-75	32	5.0	0:32:05
18	20	8.9	0:20:08	-29	26	10.8	0:26:10				
17	20	16.6	0:20:16	-30	26	18.5	0:26:18				
16	20	24.3	0:20:24	-31	26	26.2	0:26:26				
15	20	32.0	0:20:32	-32	26	33.9	0:26:33				
14	20	39.7	0:20:39	-33	26	41.6	0:26:41				
13	20	47.4	0:20:47	-34	26	49.3	0:26:49				
12	20	55.1	0:20:55	-35	26	57.0	0:26:57				
11	21	2.8	0:21:02	-36	27	4.7	0:27:04				
10	21	10.5	0:21:10	-37	27	12.4	0:27:12				
9	21	18.2	0:21:18	-38	27	20.1	0:27:20				
8	21	25.9	0:21:25	-39	27	27.8	0:27:27				
7	21	33.6	0:21:33	-40	27	35.5	0:27:35				
6	21	41.3	0:21:41	-41	27	43.2	0:27:43				
5	21	49.0	0:21:49	-42	27	50.9	0:27:50				
4	21	56.7	0:21:56	-43	27	58.6	0:27:58				
3	22	4.4	0:22:04	-44	28	6.3	0:28:06				
2	22	12.1	0:22:12	-45	28	14.0	0:28:14				
1	22	19.8	0:22:19	-46	28	21.7	0:28:21				
0	22	27.5	0:22:27	-47	28	29.4	0:28:29				
-1	22	35.2	0:22:35	-48	28	37.1	0:28:37				
-2	22	42.9	0:22:42	-49	28	44.8	0:28:44				
-3	22	50.6	0:22:50	-50	28	52.5	0:28:52				
-4	22	58.3	0:22:58	-51	29	0.2	0:29:00				
-5	23	6.0	0:23:06	-52	29	7.9	0:29:07				
-6	23	13.7	0:23:13	-53	29	15.6	0:29:15				
-7	23	21.4	0:23:21	-54	29	23.3	0:29:23				
-8	23	29.1	0:23:29	-55	29	31.0	0:29:31				
-9	23	36.8	0:23:36	-56	29	38.7	0:29:38				

END OF COURSE 4