

# HYC Mermaid Regatta

October 15, 2022

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).
- 1.2 Appendices V will apply.
- 1.3 In case of conflict between the NOR and these SIs, these SIs will prevail. This changes RRS 63.7.
- 1.4 All boats shall have a VHF radio that is in working order.

### 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 on-line at <http://www.regattanetwork.com/event/25227> ("Event Website").

### 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 the Event Website. If no email address was provided by the competitor at registration, it is up to the competitor to check the Official Notice Board and the Event Website.
- 3.3 The race committee (RC) may, at its discretion, change the SIs on the water as follows:
  - 3.3.1 Changes will be communicated after Code Flag "L" is raised before the warning signal of the race to which the change in SIs apply.
  - 3.3.2 This change will be communicated by VHF.
 The failure of electronic equipment, failure to hear oral changes, the oral changes, delay in raising Code Flag "L", or failure to see Code Flag "L", will not be grounds for redress. This modifies RRS 62.1(a).

### 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. 14, 2022	1900 Hrs	Competitors' Briefing in Person and by Zoom in the Centennial Room at the HYC clubhouse
Saturday	Oct. 15, 2022	1100 Hrs	First Warning
			Awards Ceremony approx. 2 hrs. after the <u>Race Committee Boat</u> enters the HYC harbor.

**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 shoreline 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 also stated in Attachment A 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 a floating object.
- 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 may hail boats "On Course Side" (OCS) as soon as possible after the start.
- 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 a floating object. 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) without a hearing. The points awarded for boats scored DNF will be equal to the number of boats starting the race plus 2. This changes RRS 35 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 (“Protest Time Limit”). 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 Limit. 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 15, 2022.** 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.

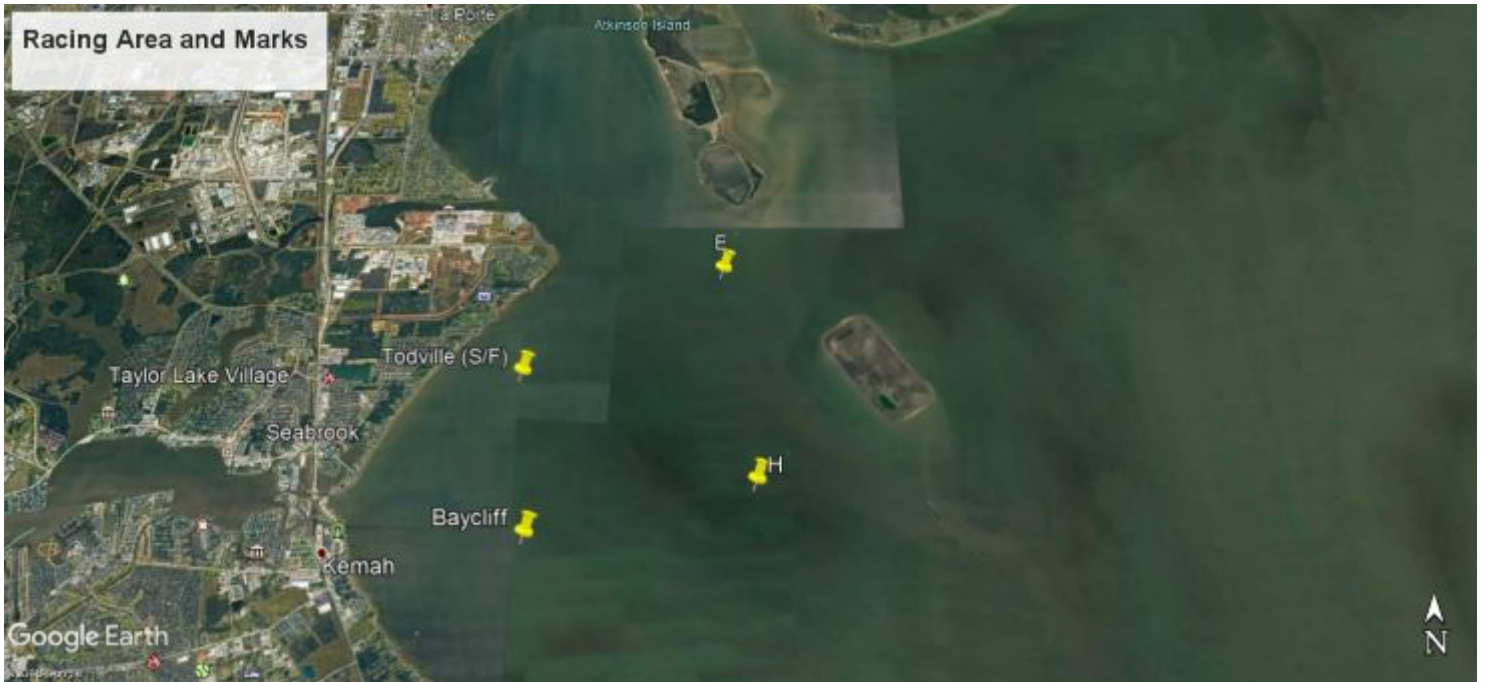
**18. RADIO COMMUNICATIONS**

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 monitor **VHF Channel 68**.

## 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**

<b>Leg</b>	<b>Mark</b>	<b>Approx. Distance (NM)</b>	<b>Approx. Bearing</b>	<b>Leave To:</b>
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**

<b>Leg</b>	<b>Mark</b>	<b>Approx. Distance (NM)</b>	<b>Approx. Bearing</b>	<b>Leave To:</b>
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**

<b>Leg</b>	<b>Mark</b>	<b>Approx. Distance (NM)</b>	<b>Approx. Bearing</b>	<b>Leave To:</b>
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**

<b>Leg</b>	<b>Mark</b>	<b>Approx. Distance (NM)</b>	<b>Approx. Bearing</b>	<b>Leave To:</b>
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
250	0	0.0	0:00:00	204	7	44.6	0:07:44	158	15	29.2	0:15:29
249	0	10.1	0:00:10	203	7	54.7	0:07:54	157	15	39.3	0:15:39
248	0	20.2	0:00:20	202	8	4.8	0:08:04	156	15	49.4	0:15:49
247	0	30.3	0:00:30	201	8	14.9	0:08:14	155	15	59.5	0:15:59
246	0	40.4	0:00:40	200	8	25.0	0:08:25	154	16	9.6	0:16:09
245	0	50.5	0:00:50	199	8	35.1	0:08:35	153	16	19.7	0:16:19
244	1	0.6	0:01:00	198	8	45.2	0:08:45	152	16	29.8	0:16:29
243	1	10.7	0:01:10	197	8	55.3	0:08:55	151	16	39.9	0:16:39
242	1	20.8	0:01:20	196	9	5.4	0:09:05	150	16	50.0	0:16:50
241	1	30.9	0:01:30	195	9	15.5	0:09:15	149	17	0.1	0:17:00
240	1	41.0	0:01:41	194	9	25.6	0:09:25	148	17	10.2	0:17:10
239	1	51.1	0:01:51	193	9	35.7	0:09:35	147	17	20.3	0:17:20
238	2	1.2	0:02:01	192	9	45.8	0:09:45	146	17	30.4	0:17:30
237	2	11.3	0:02:11	191	9	55.9	0:09:55	145	17	40.5	0:17:40
236	2	21.4	0:02:21	190	10	6.0	0:10:06	144	17	50.6	0:17:50
235	2	31.5	0:02:31	189	10	16.1	0:10:16	143	18	0.7	0:18:00
234	2	41.6	0:02:41	188	10	26.2	0:10:26	142	18	10.8	0:18:10
233	2	51.7	0:02:51	187	10	36.3	0:10:36	141	18	20.9	0:18:20
232	3	1.8	0:03:01	186	10	46.4	0:10:46	140	18	31.0	0:18:31
231	3	11.9	0:03:11	185	10	56.5	0:10:56	139	18	41.1	0:18:41
230	3	22.0	0:03:22	184	11	6.6	0:11:06	138	18	51.2	0:18:51
229	3	32.1	0:03:32	183	11	16.7	0:11:16	137	19	1.3	0:19:01
228	3	42.2	0:03:42	182	11	26.8	0:11:26	136	19	11.4	0:19:11
227	3	52.3	0:03:52	181	11	36.9	0:11:36	135	19	21.5	0:19:21
226	4	2.4	0:04:02	180	11	47.0	0:11:47	134	19	31.6	0:19:31
225	4	12.5	0:04:12	179	11	57.1	0:11:57	133	19	41.7	0:19:41
224	4	22.6	0:04:22	178	12	7.2	0:12:07	132	19	51.8	0:19:51
223	4	32.7	0:04:32	177	12	17.3	0:12:17	131	20	1.9	0:20:01
222	4	42.8	0:04:42	176	12	27.4	0:12:27	130	20	12.0	0:20:12
221	4	52.9	0:04:52	175	12	37.5	0:12:37	129	20	22.1	0:20:22
220	5	3.0	0:05:03	174	12	47.6	0:12:47	128	20	32.2	0:20:32
219	5	13.1	0:05:13	173	12	57.7	0:12:57	127	20	42.3	0:20:42
218	5	23.2	0:05:23	172	13	7.8	0:13:07	126	20	52.4	0:20:52
217	5	33.3	0:05:33	171	13	17.9	0:13:17	125	21	2.5	0:21:02
216	5	43.4	0:05:43	170	13	28.0	0:13:28	124	21	12.6	0:21:12
215	5	53.5	0:05:53	169	13	38.1	0:13:38	123	21	22.7	0:21:22
214	6	3.6	0:06:03	168	13	48.2	0:13:48	122	21	32.8	0:21:32
213	6	13.7	0:06:13	167	13	58.3	0:13:58	121	21	42.9	0:21:42
212	6	23.8	0:06:23	166	14	8.4	0:14:08	120	21	53.0	0:21:53
211	6	33.9	0:06:33	165	14	18.5	0:14:18	119	22	3.1	0:22:03
210	6	44.0	0:06:44	164	14	28.6	0:14:28	118	22	13.2	0:22:13
209	6	54.1	0:06:54	163	14	38.7	0:14:38	117	22	23.3	0:22:23
208	7	4.2	0:07:04	162	14	48.8	0:14:48	116	22	33.4	0:22:33
207	7	14.3	0:07:14	161	14	58.9	0:14:58	115	22	43.5	0:22:43
206	7	24.4	0:07:24	160	15	9.0	0:15:09	114	22	53.6	0:22:53
205	7	34.5	0:07:34	159	15	19.1	0:15:19	113	23	3.7	0:23:03

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
112	23	13.8	0:23:13	65	31	8.5	0:31:08	18	39	3.2	0:39:03
111	23	23.9	0:23:23	64	31	18.6	0:31:18	17	39	13.3	0:39:13
110	23	34.0	0:23:34	63	31	28.7	0:31:28	16	39	23.4	0:39:23
109	23	44.1	0:23:44	62	31	38.8	0:31:38	15	39	33.5	0:39:33
108	23	54.2	0:23:54	61	31	48.9	0:31:48	14	39	43.6	0:39:43
107	24	4.3	0:24:04	60	31	59.0	0:31:59	13	39	53.7	0:39:53
106	24	14.4	0:24:14	59	32	9.1	0:32:09	12	40	3.8	0:40:03
105	24	24.5	0:24:24	58	32	19.2	0:32:19	11	40	13.9	0:40:13
104	24	34.6	0:24:34	57	32	29.3	0:32:29	10	40	24.0	0:40:24
103	24	44.7	0:24:44	56	32	39.4	0:32:39	9	40	34.1	0:40:34
102	24	54.8	0:24:54	55	32	49.5	0:32:49	8	40	44.2	0:40:44
101	25	4.9	0:25:04	54	32	59.6	0:32:59	7	40	54.3	0:40:54
100	25	15.0	0:25:15	53	33	9.7	0:33:09	6	41	4.4	0:41:04
99	25	25.1	0:25:25	52	33	19.8	0:33:19	5	41	14.5	0:41:14
98	25	35.2	0:25:35	51	33	29.9	0:33:29	4	41	24.6	0:41:24
97	25	45.3	0:25:45	50	33	40.0	0:33:40	3	41	34.7	0:41:34
96	25	55.4	0:25:55	49	33	50.1	0:33:50	2	41	44.8	0:41:44
95	26	5.5	0:26:05	48	34	0.2	0:34:00	1	41	54.9	0:41:54
94	26	15.6	0:26:15	47	34	10.3	0:34:10	0	42	5.0	0:42:05
93	26	25.7	0:26:25	46	34	20.4	0:34:20				
92	26	35.8	0:26:35	45	34	30.5	0:34:30				
91	26	45.9	0:26:45	44	34	40.6	0:34:40				
90	26	56.0	0:26:56	43	34	50.7	0:34:50				
89	27	6.1	0:27:06	42	35	0.8	0:35:00				
88	27	16.2	0:27:16	41	35	10.9	0:35:10				
87	27	26.3	0:27:26	40	35	21.0	0:35:21				
86	27	36.4	0:27:36	39	35	31.1	0:35:31				
85	27	46.5	0:27:46	38	35	41.2	0:35:41				
84	27	56.6	0:27:56	37	35	51.3	0:35:51				
83	28	6.7	0:28:06	36	36	1.4	0:36:01				
82	28	16.8	0:28:16	35	36	11.5	0:36:11				
81	28	26.9	0:28:26	34	36	21.6	0:36:21				
80	28	37.0	0:28:37	33	36	31.7	0:36:31				
79	28	47.1	0:28:47	32	36	41.8	0:36:41				
78	28	57.2	0:28:57	31	36	51.9	0:36:51				
77	29	7.3	0:29:07	30	37	2.0	0:37:02				
76	29	17.4	0:29:17	29	37	12.1	0:37:12				
75	29	27.5	0:29:27	28	37	22.2	0:37:22				
74	29	37.6	0:29:37	27	37	32.3	0:37:32				
73	29	47.7	0:29:47	26	37	42.4	0:37:42				
72	29	57.8	0:29:57	25	37	52.5	0:37:52				
71	30	7.9	0:30:07	24	38	2.6	0:38:02				
70	30	18.0	0:30:18	23	38	12.7	0:38:12				
69	30	28.1	0:30:28	22	38	22.8	0:38:22				
68	30	38.2	0:30:38	21	38	32.9	0:38:32				
67	30	48.3	0:30:48	20	38	43.0	0:38:43				
66	30	58.4	0:30:58	19	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
250	0	0.0	0:00:00	204	8	3.0	0:08:03	158	16	6.0	0:16:06
249	0	10.5	0:00:10	203	8	13.5	0:08:13	157	16	16.5	0:16:16
248	0	21.0	0:00:21	202	8	24.0	0:08:24	156	16	27.0	0:16:27
247	0	31.5	0:00:31	201	8	34.5	0:08:34	155	16	37.5	0:16:37
246	0	42.0	0:00:42	200	8	45.0	0:08:45	154	16	48.0	0:16:48
245	0	52.5	0:00:52	199	8	55.5	0:08:55	153	16	58.5	0:16:58
244	1	3.0	0:01:03	198	9	6.0	0:09:06	152	17	9.0	0:17:09
243	1	13.5	0:01:13	197	9	16.5	0:09:16	151	17	19.5	0:17:19
242	1	24.0	0:01:24	196	9	27.0	0:09:27	150	17	30.0	0:17:30
241	1	34.5	0:01:34	195	9	37.5	0:09:37	149	17	40.5	0:17:40
240	1	45.0	0:01:45	194	9	48.0	0:09:48	148	17	51.0	0:17:51
239	1	55.5	0:01:55	193	9	58.5	0:09:58	147	18	1.5	0:18:01
238	2	6.0	0:02:06	192	10	9.0	0:10:09	146	18	12.0	0:18:12
237	2	16.5	0:02:16	191	10	19.5	0:10:19	145	18	22.5	0:18:22
236	2	27.0	0:02:27	190	10	30.0	0:10:30	144	18	33.0	0:18:33
235	2	37.5	0:02:37	189	10	40.5	0:10:40	143	18	43.5	0:18:43
234	2	48.0	0:02:48	188	10	51.0	0:10:51	142	18	54.0	0:18:54
233	2	58.5	0:02:58	187	11	1.5	0:11:01	141	19	4.5	0:19:04
232	3	9.0	0:03:09	186	11	12.0	0:11:12	140	19	15.0	0:19:15
231	3	19.5	0:03:19	185	11	22.5	0:11:22	139	19	25.5	0:19:25
230	3	30.0	0:03:30	184	11	33.0	0:11:33	138	19	36.0	0:19:36
229	3	40.5	0:03:40	183	11	43.5	0:11:43	137	19	46.5	0:19:46
228	3	51.0	0:03:51	182	11	54.0	0:11:54	136	19	57.0	0:19:57
227	4	1.5	0:04:01	181	12	4.5	0:12:04	135	20	7.5	0:20:07
226	4	12.0	0:04:12	180	12	15.0	0:12:15	134	20	18.0	0:20:18
225	4	22.5	0:04:22	179	12	25.5	0:12:25	133	20	28.5	0:20:28
224	4	33.0	0:04:33	178	12	36.0	0:12:36	132	20	39.0	0:20:39
223	4	43.5	0:04:43	177	12	46.5	0:12:46	131	20	49.5	0:20:49
222	4	54.0	0:04:54	176	12	57.0	0:12:57	130	21	0.0	0:21:00
221	5	4.5	0:05:04	175	13	7.5	0:13:07	129	21	10.5	0:21:10
220	5	15.0	0:05:15	174	13	18.0	0:13:18	128	21	21.0	0:21:21
219	5	25.5	0:05:25	173	13	28.5	0:13:28	127	21	31.5	0:21:31
218	5	36.0	0:05:36	172	13	39.0	0:13:39	126	21	42.0	0:21:42
217	5	46.5	0:05:46	171	13	49.5	0:13:49	125	21	52.5	0:21:52
216	5	57.0	0:05:57	170	14	0.0	0:14:00	124	22	3.0	0:22:03
215	6	7.5	0:06:07	169	14	10.5	0:14:10	123	22	13.5	0:22:13
214	6	18.0	0:06:18	168	14	21.0	0:14:21	122	22	24.0	0:22:24
213	6	28.5	0:06:28	167	14	31.5	0:14:31	121	22	34.5	0:22:34
212	6	39.0	0:06:39	166	14	42.0	0:14:42	120	22	45.0	0:22:45
211	6	49.5	0:06:49	165	14	52.5	0:14:52	119	22	55.5	0:22:55
210	7	0.0	0:07:00	164	15	3.0	0:15:03	118	23	6.0	0:23:06
209	7	10.5	0:07:10	163	15	13.5	0:15:13	117	23	16.5	0:23:16
208	7	21.0	0:07:21	162	15	24.0	0:15:24	116	23	27.0	0:23:27
207	7	31.5	0:07:31	161	15	34.5	0:15:34	115	23	37.5	0:23:37
206	7	42.0	0:07:42	160	15	45.0	0:15:45	114	23	48.0	0:23:48
205	7	52.5	0:07:52	159	15	55.5	0:15:55	113	23	58.5	0:23:58

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
112	24	9.0	0:24:09	65	32	22.5	0:32:22	18	40	36.0	0:40:36
111	24	19.5	0:24:19	64	32	33.0	0:32:33	17	40	46.5	0:40:46
110	24	30.0	0:24:30	63	32	43.5	0:32:43	16	40	57.0	0:40:57
109	24	40.5	0:24:40	62	32	54.0	0:32:54	15	41	7.5	0:41:07
108	24	51.0	0:24:51	61	33	4.5	0:33:04	14	41	18.0	0:41:18
107	25	1.5	0:25:01	60	33	15.0	0:33:15	13	41	28.5	0:41:28
106	25	12.0	0:25:12	59	33	25.5	0:33:25	12	41	39.0	0:41:39
105	25	22.5	0:25:22	58	33	36.0	0:33:36	11	41	49.5	0:41:49
104	25	33.0	0:25:33	57	33	46.5	0:33:46	10	42	0.0	0:42:00
103	25	43.5	0:25:43	56	33	57.0	0:33:57	9	42	10.5	0:42:10
102	25	54.0	0:25:54	55	34	7.5	0:34:07	8	42	21.0	0:42:21
101	26	4.5	0:26:04	54	34	18.0	0:34:18	7	42	31.5	0:42:31
100	26	15.0	0:26:15	53	34	28.5	0:34:28	6	42	42.0	0:42:42
99	26	25.5	0:26:25	52	34	39.0	0:34:39	5	42	52.5	0:42:52
98	26	36.0	0:26:36	51	34	49.5	0:34:49	4	43	3.0	0:43:03
97	26	46.5	0:26:46	50	35	0.0	0:35:00	3	43	13.5	0:43:13
96	26	57.0	0:26:57	49	35	10.5	0:35:10	2	43	24.0	0:43:24
95	27	7.5	0:27:07	48	35	21.0	0:35:21	1	43	34.5	0:43:34
94	27	18.0	0:27:18	47	35	31.5	0:35:31	0	43	45.0	0:43:45
93	27	28.5	0:27:28	46	35	42.0	0:35:42				
92	27	39.0	0:27:39	45	35	52.5	0:35:52				
91	27	49.5	0:27:49	44	36	3.0	0:36:03				
90	28	0.0	0:28:00	43	36	13.5	0:36:13				
89	28	10.5	0:28:10	42	36	24.0	0:36:24				
88	28	21.0	0:28:21	41	36	34.5	0:36:34				
87	28	31.5	0:28:31	40	36	45.0	0:36:45				
86	28	42.0	0:28:42	39	36	55.5	0:36:55				
85	28	52.5	0:28:52	38	37	6.0	0:37:06				
84	29	3.0	0:29:03	37	37	16.5	0:37:16				
83	29	13.5	0:29:13	36	37	27.0	0:37:27				
82	29	24.0	0:29:24	35	37	37.5	0:37:37				
81	29	34.5	0:29:34	34	37	48.0	0:37:48				
80	29	45.0	0:29:45	33	37	58.5	0:37:58				
79	29	55.5	0:29:55	32	38	9.0	0:38:09				
78	30	6.0	0:30:06	31	38	19.5	0:38:19				
77	30	16.5	0:30:16	30	38	30.0	0:38:30				
76	30	27.0	0:30:27	29	38	40.5	0:38:40				
75	30	37.5	0:30:37	28	38	51.0	0:38:51				
74	30	48.0	0:30:48	27	39	1.5	0:39:01				
73	30	58.5	0:30:58	26	39	12.0	0:39:12				
72	31	9.0	0:31:09	25	39	22.5	0:39:22				
71	31	19.5	0:31:19	24	39	33.0	0:39:33				
70	31	30.0	0:31:30	23	39	43.5	0:39:43				
69	31	40.5	0:31:40	22	39	54.0	0:39:54				
68	31	51.0	0:31:51	21	40	4.5	0:40:04				
67	32	1.5	0:32:01	20	40	15.0	0:40:15				
66	32	12.0	0:32:12	19	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
250	0	0.0	0:00:00	204	10	42.2	0:10:42	158	21	24.3	0:21:24
249	0	14.0	0:00:13	203	10	56.1	0:10:56	157	21	38.3	0:21:38
248	0	27.9	0:00:27	202	11	10.1	0:11:10	156	21	52.2	0:21:52
247	0	41.9	0:00:41	201	11	24.0	0:11:24	155	22	6.2	0:22:06
246	0	55.8	0:00:55	200	11	38.0	0:11:38	154	22	20.2	0:22:20
245	1	9.8	0:01:09	199	11	52.0	0:11:51	153	22	34.1	0:22:34
244	1	23.8	0:01:23	198	12	5.9	0:12:05	152	22	48.1	0:22:48
243	1	37.7	0:01:37	197	12	19.9	0:12:19	151	23	2.0	0:23:02
242	1	51.7	0:01:51	196	12	33.8	0:12:33	150	23	16.0	0:23:16
241	2	5.6	0:02:05	195	12	47.8	0:12:47	149	23	30.0	0:23:29
240	2	19.6	0:02:19	194	13	1.8	0:13:01	148	23	43.9	0:23:43
239	2	33.6	0:02:33	193	13	15.7	0:13:15	147	23	57.9	0:23:57
238	2	47.5	0:02:47	192	13	29.7	0:13:29	146	24	11.8	0:24:11
237	3	1.5	0:03:01	191	13	43.6	0:13:43	145	24	25.8	0:24:25
236	3	15.4	0:03:15	190	13	57.6	0:13:57	144	24	39.8	0:24:39
235	3	29.4	0:03:29	189	14	11.6	0:14:11	143	24	53.7	0:24:53
234	3	43.4	0:03:43	188	14	25.5	0:14:25	142	25	7.7	0:25:07
233	3	57.3	0:03:57	187	14	39.5	0:14:39	141	25	21.6	0:25:21
232	4	11.3	0:04:11	186	14	53.4	0:14:53	140	25	35.6	0:25:35
231	4	25.2	0:04:25	185	15	7.4	0:15:07	139	25	49.6	0:25:49
230	4	39.2	0:04:39	184	15	21.4	0:15:21	138	26	3.5	0:26:03
229	4	53.2	0:04:53	183	15	35.3	0:15:35	137	26	17.5	0:26:17
228	5	7.1	0:05:07	182	15	49.3	0:15:49	136	26	31.4	0:26:31
227	5	21.1	0:05:21	181	16	3.2	0:16:03	135	26	45.4	0:26:45
226	5	35.0	0:05:35	180	16	17.2	0:16:17	134	26	59.4	0:26:59
225	5	49.0	0:05:49	179	16	31.2	0:16:31	133	27	13.3	0:27:13
224	6	3.0	0:06:02	178	16	45.1	0:16:45	132	27	27.3	0:27:27
223	6	16.9	0:06:16	177	16	59.1	0:16:59	131	27	41.2	0:27:41
222	6	30.9	0:06:30	176	17	13.0	0:17:13	130	27	55.2	0:27:55
221	6	44.8	0:06:44	175	17	27.0	0:17:27	129	28	9.2	0:28:09
220	6	58.8	0:06:58	174	17	41.0	0:17:40	128	28	23.1	0:28:23
219	7	12.8	0:07:12	173	17	54.9	0:17:54	127	28	37.1	0:28:37
218	7	26.7	0:07:26	172	18	8.9	0:18:08	126	28	51.0	0:28:51
217	7	40.7	0:07:40	171	18	22.8	0:18:22	125	29	5.0	0:29:05
216	7	54.6	0:07:54	170	18	36.8	0:18:36	124	29	19.0	0:29:18
215	8	8.6	0:08:08	169	18	50.8	0:18:50	123	29	32.9	0:29:32
214	8	22.6	0:08:22	168	19	4.7	0:19:04	122	29	46.9	0:29:46
213	8	36.5	0:08:36	167	19	18.7	0:19:18	121	30	0.8	0:30:00
212	8	50.5	0:08:50	166	19	32.6	0:19:32	120	30	14.8	0:30:14
211	9	4.4	0:09:04	165	19	46.6	0:19:46	119	30	28.8	0:30:28
210	9	18.4	0:09:18	164	20	0.6	0:20:00	118	30	42.7	0:30:42
209	9	32.4	0:09:32	163	20	14.5	0:20:14	117	30	56.7	0:30:56
208	9	46.3	0:09:46	162	20	28.5	0:20:28	116	31	10.6	0:31:10
207	10	0.3	0:10:00	161	20	42.4	0:20:42	115	31	24.6	0:31:24
206	10	14.2	0:10:14	160	20	56.4	0:20:56	114	31	38.6	0:31:38
205	10	28.2	0:10:28	159	21	10.4	0:21:10	113	31	52.5	0:31:52

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
112	32	6.5	0:32:06	65	43	2.6	0:43:02	18	53	58.7	0:53:58
111	32	20.4	0:32:20	64	43	16.6	0:43:16	17	54	12.7	0:54:12
110	32	34.4	0:32:34	63	43	30.5	0:43:30	16	54	26.6	0:54:26
109	32	48.4	0:32:48	62	43	44.5	0:43:44	15	54	40.6	0:54:40
108	33	2.3	0:33:02	61	43	58.4	0:43:58	14	54	54.6	0:54:54
107	33	16.3	0:33:16	60	44	12.4	0:44:12	13	55	8.5	0:55:08
106	33	30.2	0:33:30	59	44	26.4	0:44:26	12	55	22.5	0:55:22
105	33	44.2	0:33:44	58	44	40.3	0:44:40	11	55	36.4	0:55:36
104	33	58.2	0:33:58	57	44	54.3	0:44:54	10	55	50.4	0:55:50
103	34	12.1	0:34:12	56	45	8.2	0:45:08	9	56	4.4	0:56:04
102	34	26.1	0:34:26	55	45	22.2	0:45:22	8	56	18.3	0:56:18
101	34	40.0	0:34:40	54	45	36.2	0:45:36	7	56	32.3	0:56:32
100	34	54.0	0:34:54	53	45	50.1	0:45:50	6	56	46.2	0:56:46
99	35	8.0	0:35:07	52	46	4.1	0:46:04	5	57	0.2	0:57:00
98	35	21.9	0:35:21	51	46	18.0	0:46:18	4	57	14.2	0:57:14
97	35	35.9	0:35:35	50	46	32.0	0:46:32	3	57	28.1	0:57:28
96	35	49.8	0:35:49	49	46	46.0	0:46:45	2	57	42.1	0:57:42
95	36	3.8	0:36:03	48	46	59.9	0:46:59	1	57	56.0	0:57:56
94	36	17.8	0:36:17	47	47	13.9	0:47:13	0	58	10.0	0:58:10
93	36	31.7	0:36:31	46	47	27.8	0:47:27				
92	36	45.7	0:36:45	45	47	41.8	0:47:41				
91	36	59.6	0:36:59	44	47	55.8	0:47:55				
90	37	13.6	0:37:13	43	48	9.7	0:48:09				
89	37	27.6	0:37:27	42	48	23.7	0:48:23				
88	37	41.5	0:37:41	41	48	37.6	0:48:37				
87	37	55.5	0:37:55	40	48	51.6	0:48:51				
86	38	9.4	0:38:09	39	49	5.6	0:49:05				
85	38	23.4	0:38:23	38	49	19.5	0:49:19				
84	38	37.4	0:38:37	37	49	33.5	0:49:33				
83	38	51.3	0:38:51	36	49	47.4	0:49:47				
82	39	5.3	0:39:05	35	50	1.4	0:50:01				
81	39	19.2	0:39:19	34	50	15.4	0:50:15				
80	39	33.2	0:39:33	33	50	29.3	0:50:29				
79	39	47.2	0:39:47	32	50	43.3	0:50:43				
78	40	1.1	0:40:01	31	50	57.2	0:50:57				
77	40	15.1	0:40:15	30	51	11.2	0:51:11				
76	40	29.0	0:40:29	29	51	25.2	0:51:25				
75	40	43.0	0:40:43	28	51	39.1	0:51:39				
74	40	57.0	0:40:56	27	51	53.1	0:51:53				
73	41	10.9	0:41:10	26	52	7.0	0:52:07				
72	41	24.9	0:41:24	25	52	21.0	0:52:21				
71	41	38.8	0:41:38	24	52	35.0	0:52:34				
70	41	52.8	0:41:52	23	52	48.9	0:52:48				
69	42	6.8	0:42:06	22	53	2.9	0:53:02				
68	42	20.7	0:42:20	21	53	16.8	0:53:16				
67	42	34.7	0:42:34	20	53	30.8	0:53:30				
66	42	48.6	0:42:48	19	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
250	0	0.0	0:00:00	204	5	54.2	0:05:54	158	11	48.4	0:11:48
249	0	7.7	0:00:07	203	6	1.9	0:06:01	157	11	56.1	0:11:56
248	0	15.4	0:00:15	202	6	9.6	0:06:09	156	12	3.8	0:12:03
247	0	23.1	0:00:23	201	6	17.3	0:06:17	155	12	11.5	0:12:11
246	0	30.8	0:00:30	200	6	25.0	0:06:25	154	12	19.2	0:12:19
245	0	38.5	0:00:38	199	6	32.7	0:06:32	153	12	26.9	0:12:26
244	0	46.2	0:00:46	198	6	40.4	0:06:40	152	12	34.6	0:12:34
243	0	53.9	0:00:53	197	6	48.1	0:06:48	151	12	42.3	0:12:42
242	1	1.6	0:01:01	196	6	55.8	0:06:55	150	12	50.0	0:12:50
241	1	9.3	0:01:09	195	7	3.5	0:07:03	149	12	57.7	0:12:57
240	1	17.0	0:01:17	194	7	11.2	0:07:11	148	13	5.4	0:13:05
239	1	24.7	0:01:24	193	7	18.9	0:07:18	147	13	13.1	0:13:13
238	1	32.4	0:01:32	192	7	26.6	0:07:26	146	13	20.8	0:13:20
237	1	40.1	0:01:40	191	7	34.3	0:07:34	145	13	28.5	0:13:28
236	1	47.8	0:01:47	190	7	42.0	0:07:42	144	13	36.2	0:13:36
235	1	55.5	0:01:55	189	7	49.7	0:07:49	143	13	43.9	0:13:43
234	2	3.2	0:02:03	188	7	57.4	0:07:57	142	13	51.6	0:13:51
233	2	10.9	0:02:10	187	8	5.1	0:08:05	141	13	59.3	0:13:59
232	2	18.6	0:02:18	186	8	12.8	0:08:12	140	14	7.0	0:14:07
231	2	26.3	0:02:26	185	8	20.5	0:08:20	139	14	14.7	0:14:14
230	2	34.0	0:02:34	184	8	28.2	0:08:28	138	14	22.4	0:14:22
229	2	41.7	0:02:41	183	8	35.9	0:08:35	137	14	30.1	0:14:30
228	2	49.4	0:02:49	182	8	43.6	0:08:43	136	14	37.8	0:14:37
227	2	57.1	0:02:57	181	8	51.3	0:08:51	135	14	45.5	0:14:45
226	3	4.8	0:03:04	180	8	59.0	0:08:59	134	14	53.2	0:14:53
225	3	12.5	0:03:12	179	9	6.7	0:09:06	133	15	0.9	0:15:00
224	3	20.2	0:03:20	178	9	14.4	0:09:14	132	15	8.6	0:15:08
223	3	27.9	0:03:27	177	9	22.1	0:09:22	131	15	16.3	0:15:16
222	3	35.6	0:03:35	176	9	29.8	0:09:29	130	15	24.0	0:15:24
221	3	43.3	0:03:43	175	9	37.5	0:09:37	129	15	31.7	0:15:31
220	3	51.0	0:03:51	174	9	45.2	0:09:45	128	15	39.4	0:15:39
219	3	58.7	0:03:58	173	9	52.9	0:09:52	127	15	47.1	0:15:47
218	4	6.4	0:04:06	172	10	0.6	0:10:00	126	15	54.8	0:15:54
217	4	14.1	0:04:14	171	10	8.3	0:10:08	125	16	2.5	0:16:02
216	4	21.8	0:04:21	170	10	16.0	0:10:16	124	16	10.2	0:16:10
215	4	29.5	0:04:29	169	10	23.7	0:10:23	123	16	17.9	0:16:17
214	4	37.2	0:04:37	168	10	31.4	0:10:31	122	16	25.6	0:16:25
213	4	44.9	0:04:44	167	10	39.1	0:10:39	121	16	33.3	0:16:33
212	4	52.6	0:04:52	166	10	46.8	0:10:46	120	16	41.0	0:16:41
211	5	0.3	0:05:00	165	10	54.5	0:10:54	119	16	48.7	0:16:48
210	5	8.0	0:05:08	164	11	2.2	0:11:02	118	16	56.4	0:16:56
209	5	15.7	0:05:15	163	11	9.9	0:11:09	117	17	4.1	0:17:04
208	5	23.4	0:05:23	162	11	17.6	0:11:17	116	17	11.8	0:17:11
207	5	31.1	0:05:31	161	11	25.3	0:11:25	115	17	19.5	0:17:19
206	5	38.8	0:05:38	160	11	33.0	0:11:33	114	17	27.2	0:17:27
205	5	46.5	0:05:46	159	11	40.7	0:11:40	113	17	34.9	0:17:34

PHRF	Min	Sec	Start	PHRF	Min	Sec	Start	PHRF	Min	Sec	Start
112	17	42.6	0:17:42	65	23	44.5	0:23:44	18	29	46.4	0:29:46
111	17	50.3	0:17:50	64	23	52.2	0:23:52	17	29	54.1	0:29:54
110	17	58.0	0:17:58	63	23	59.9	0:23:59	16	30	1.8	0:30:01
109	18	5.7	0:18:05	62	24	7.6	0:24:07	15	30	9.5	0:30:09
108	18	13.4	0:18:13	61	24	15.3	0:24:15	14	30	17.2	0:30:17
107	18	21.1	0:18:21	60	24	23.0	0:24:23	13	30	24.9	0:30:24
106	18	28.8	0:18:28	59	24	30.7	0:24:30	12	30	32.6	0:30:32
105	18	36.5	0:18:36	58	24	38.4	0:24:38	11	30	40.3	0:30:40
104	18	44.2	0:18:44	57	24	46.1	0:24:46	10	30	48.0	0:30:48
103	18	51.9	0:18:51	56	24	53.8	0:24:53	9	30	55.7	0:30:55
102	18	59.6	0:18:59	55	25	1.5	0:25:01	8	31	3.4	0:31:03
101	19	7.3	0:19:07	54	25	9.2	0:25:09	7	31	11.1	0:31:11
100	19	15.0	0:19:15	53	25	16.9	0:25:16	6	31	18.8	0:31:18
99	19	22.7	0:19:22	52	25	24.6	0:25:24	5	31	26.5	0:31:26
98	19	30.4	0:19:30	51	25	32.3	0:25:32	4	31	34.2	0:31:34
97	19	38.1	0:19:38	50	25	40.0	0:25:40	3	31	41.9	0:31:41
96	19	45.8	0:19:45	49	25	47.7	0:25:47	2	31	49.6	0:31:49
95	19	53.5	0:19:53	48	25	55.4	0:25:55	1	31	57.3	0:31:57
94	20	1.2	0:20:01	47	26	3.1	0:26:03	0	32	5.0	0:32:05
93	20	8.9	0:20:08	46	26	10.8	0:26:10				
92	20	16.6	0:20:16	45	26	18.5	0:26:18				
91	20	24.3	0:20:24	44	26	26.2	0:26:26				
90	20	32.0	0:20:32	43	26	33.9	0:26:33				
89	20	39.7	0:20:39	42	26	41.6	0:26:41				
88	20	47.4	0:20:47	41	26	49.3	0:26:49				
87	20	55.1	0:20:55	40	26	57.0	0:26:57				
86	21	2.8	0:21:02	39	27	4.7	0:27:04				
85	21	10.5	0:21:10	38	27	12.4	0:27:12				
84	21	18.2	0:21:18	37	27	20.1	0:27:20				
83	21	25.9	0:21:25	36	27	27.8	0:27:27				
82	21	33.6	0:21:33	35	27	35.5	0:27:35				
81	21	41.3	0:21:41	34	27	43.2	0:27:43				
80	21	49.0	0:21:49	33	27	50.9	0:27:50				
79	21	56.7	0:21:56	32	27	58.6	0:27:58				
78	22	4.4	0:22:04	31	28	6.3	0:28:06				
77	22	12.1	0:22:12	30	28	14.0	0:28:14				
76	22	19.8	0:22:19	29	28	21.7	0:28:21				
75	22	27.5	0:22:27	28	28	29.4	0:28:29				
74	22	35.2	0:22:35	27	28	37.1	0:28:37				
73	22	42.9	0:22:42	26	28	44.8	0:28:44				
72	22	50.6	0:22:50	25	28	52.5	0:28:52				
71	22	58.3	0:22:58	24	29	0.2	0:29:00				
70	23	6.0	0:23:06	23	29	7.9	0:29:07				
69	23	13.7	0:23:13	22	29	15.6	0:29:15				
68	23	21.4	0:23:21	21	29	23.3	0:29:23				
67	23	29.1	0:23:29	20	29	31.0	0:29:31				
66	23	36.8	0:23:36	19	29	38.7	0:29:38				

**END OF COURSE 4**