

# Time on Distance – (Pursuit Start)

The faster rated vessels (low PHRF number) are in pursuit of the slower rated vessels (higher PHRF number).

- A “Pursuit Race” and a “Race Start Time” is announced by the Committee Vessel.
- Each boat, “Cross Start Time” is adjusted according to it’s PHRF.
- The slowest boats start first followed by the faster and faster boats.
- The committee vessel will advise each boat of their “Cross Start Time”.
- Theoretically, all boats should converge at the finish line.
- The boat that finishes first wins.

# The Theory -

- A “0” rated boat will complete 1 nautical mile in 520 seconds.
- A “147” rated boat will take 147 seconds longer.
- A “147” rated boat will complete 1 nautical mile in 667 seconds
  - $(520+147=667)$
- The course is measured by the shortest route from the start, around each mark (and any obstructions) to the finish line.
- The Pursuit time matrix chart calculates the start time by referencing the course distance to the PHRF rating.
- The time indicated is then added to the “race start time” to obtain the specific boat “Cross Start Time”.
- Ratings shown on the chart are in 5 second intervals. (Interpolation may be required)

## To start!

1. Across the top of the matrix, find the course that the Race Committee has called.
2. Across the left side, find your PHRF. (Interpolation may be required).
3. Where the course and rating intersect is the time, in minutes and seconds, to be added to the “Race Start Time”

# Calculating a Pursuit Start (Example)

1. Committee vessel calls the course and that it is a pursuit start.
2. Locate the “Course” on the matrix (Found on the web site).
3. Cross reference to your PHRF on the far-left column.  
(You may have to Interpolate)
4. Add (or subtract) the minutes and seconds to the “Race Start Time”.
5. Cross Start Time is your calculated start time. (Not before but ok after)
6. First boat across the finish line places first in the race.

# Pursuit Start matrix

Course List

Course	IH1(a)	IH1(b)	IH2(a)	IH2(b)	IH3	IH5	IH6	OS1	OS2	OS4	OS5	OS7	
Distance n.mi	7.1	7.5	8.4	8.7	9	9	10.8	8	8.7	7	12.6	11.7	
Rating of first boat to start	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	
PHRF base	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	
Elapsed time of 1st starter	1h 31m 7s	1h 36m 15s	1h 47m 48s	1h 51m 39s	1h 55m 30s	1h 55m 30s	2h 18m 36s	1h 42m 40s	1h 51m 39s	1h 29m 50s	2h 41m 42s	2h 30m 9s	
RATING													RATING
300s	-5m 55s	-6m 15s	-7m 0s	-7m 15s	-7m 30s	-7m 30s	-9m 0s	-6m 40s	-7m 15s	-5m 50s	-10m 30s	-9m 45s	300s
295s	-5m 20s	-5m 38s	-6m 18s	-6m 32s	-6m 45s	-6m 45s	-8m 6s	-6m 0s	-6m 32s	-5m 15s	-9m 27s	-8m 42s	295s
290s	-4m 44s	-5m 0s	-5m 36s	-5m 48s	-6m 0s	-6m 0s	-7m 12s	-5m 20s	-5m 48s	-4m 40s	-8m 51s	-8m 6s	290s
285s	-4m 9s	-4m 23s	-4m 54s	-5m 5s	-5m 15s	-5m 15s	-6m 18s	-4m 40s	-5m 5s	-4m 5s	-8m 26s	-7m 31s	285s
280s	-3m 33s	-3m 45s	-4m 12s	-4m 21s	-4m 30s	-4m 30s	-5m 24s	-4m 0s	-4m 21s	-3m 50s	-7m 56s	-7m 6s	280s
275s	-2m 58s	-3m 8s	-3m 30s	-3m 38s	-3m 45s	-3m 45s	-4m 30s	-3m 20s	-3m 45s	-2m 55s	-7m 1s	-6m 31s	275s
270s	-2m 22s	-2m 30s	-2m 48s	-2m 54s	-3m 0s	-3m 0s	-3m 36s	-2m 44s	-3m 0s	-2m 10s	-6m 26s	-5m 51s	270s
265s	-1m 47s	-1m 53s	-2m 6s	-2m 11s	-2m 15s	-2m 15s	-2m 51s	-1m 59s	-2m 10s	-1m 10s	-5m 39s	-4m 54s	265s
260s	-1m 11s	-1m 15s	-1m 24s	-1m 27s	-1m 30s	-1m 30s	-2m 15s	-1m 44s	-1m 44s	-1m 10s	-4m 6s	-3m 57s	260s
255s	-0m 36s	-0m 38s	-0m 42s	-0m 44s	-0m 45s	-0m 45s	-1m 0s	-0m 44s	-0m 44s	-0m 35s	-1m 3s	-0m 59s	255s
250s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	0m 0s	250s
245s	0m 36s	0m 38s	0m 42s	0m 44s	0m 45s	0m 45s	1m 0s	0m 40s	0m 44s	0m 35s	1m 3s	0m 59s	245s
240s	1m 11s	1m 15s	1m 24s	1m 27s	1m 30s	1m 30s	1m 48s	1m 20s	1m 27s	1m 10s	2m 6s	1m 57s	240s
235s	1m 47s	1m 53s	2m 6s	2m 11s	2m 15s	2m 15s	2m 42s	2m 0s	2m 11s	1m 45s	3m 9s	2m 56s	235s
230s	2m 22s	2m 30s	2m 48s	2m 54s	3m 0s	3m 0s	3m 36s	2m 40s	2m 54s	2m 20s	4m 12s	3m 54s	230s
225s	2m 58s	3m 8s	3m 30s	3m 38s	3m 45s	3m 45s	4m 30s	3m 20s	3m 38s	2m 55s	5m 15s	4m 53s	225s
220s	3m 33s	3m 45s	4m 12s	4m 21s	4m 30s	4m 30s	5m 24s	4m 0s	4m 21s	3m 30s	6m 18s	5m 51s	220s
215s	4m 9s	4m 23s	4m 54s	5m 5s	5m 15s	5m 15s	6m 18s	4m 40s	5m 5s	4m 5s	7m 21s	6m 50s	215s
210s	4m 44s	5m 0s	5m 36s	5m 48s	6m 0s	6m 0s	7m 12s	5m 20s	5m 48s	4m 40s	8m 24s	7m 48s	210s

Minutes and seconds to add (or subtract) to the "Race Start Time" to obtain "Cross Start Time".

Rating list

# Pursuit Start Example

- Race Start – 11:15
- Course – In Harbour #3
- Your PHRF (for an example) is 147

## Example – Race Start time 11:15

Course “in Harbour 3”

A	B	C	D	E	F	G	H
Course	IH1(a)	IH1(b)	IH2(a)	IH2(b)	IH3	IH5	IH6
Distance n.ml	7.1	7.5	8.4	8.7	9	9	10.8
A	B	C	D	E	F	G	H
165s	10m 4s	10m 38s	11m 54s	12m 20s	12m 45s	12m 45s	15m 18s
160s	10m 39s	11m 15s	12m 36s	13m 3s	13m 30s	13m 30s	16m 12s
155s	11m 15s	11m 53s	13m 18s	13m 47s	14m 15s	14m 15s	17m 6s
150s	11m 50s	12m 30s	14m 0s	14m 30s	15m 0s	15m 0s	18m 0s
145s	12m 26s	13m 8s	14m 42s	15m 14s	15m 45s	15m 45s	18m 54s
140s	13m 1s	13m 45s	15m 24s	15m 57s	16m 30s	16m 30s	19m 48s
135s	13m 37s	14m 23s	16m 6s	16m 41s	17m 15s	17m 15s	20m 42s
130s	14m 12s	15m 0s	16m 48s	17m 24s	18m 0s	18m 0s	21m 36s

Your PHRF is 147 (interpolate between 145 and 150)

Race Start Time = 11:15

Add 15m 23s to Race Start Time

Minutes and seconds to add to the Starting Time.

$$(15m45s + 15m00) / 2 = 15m23s$$

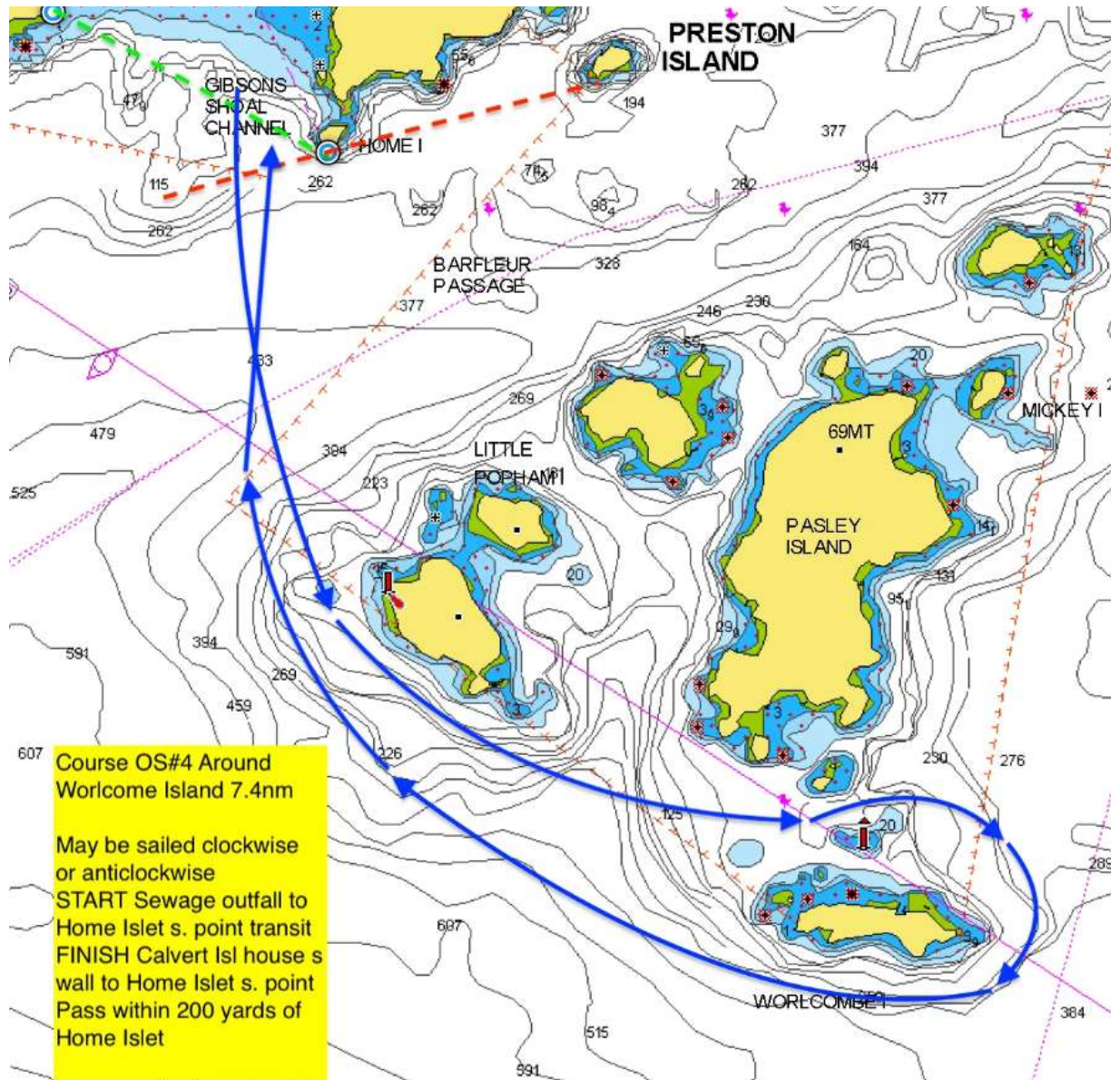
**Your Cross Start Time is 11:30:23**



One more  
time?

Course – OS4

Start time  
11:15:00





Course- OS4

Course	IH1(a)	IH1(b)	IH2(a)	IH2(b)	IH3	IH5	IH6	OS1	OS2	OS4	OS5	OS7	
Distance n.ml	7.1	7.5	8.4	8.7	9	9	10.8	8	8.7	7	12.6	11.7	
Rating of first boat to start	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	250s	
PHRF base	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	520s	
Elapsed time of 1st starter	1h 31m 7s	1h 36m 15s	1h 47m 48s	1h 51m 39s	1h 55m 30s	1h 55m 30s	2h 18m 36s	1h 42m 40s	1h 51m 39s	1h 29m 50s	2h 41m 42s	2h 30m 9s	
RATING													RAT
180s	8m 17s	8m 45s	9m 48s	10m 9s	10m 30s	10m 30s	12m 36s	9m 20s	10m 9s	8m 10s	14m 42s	13m 39s	180
175s	8m 53s	9m 23s	10m 30s	10m 53s	11m 15s	11m 15s	13m 30s	10m 0s	10m 53s	8m 45s	15m 45s	14m 38s	175
170s	9m 28s	10m 0s	11m 12s	11m 36s	12m 0s	12m 0s	14m 24s	10m 40s	11m 36s	9m 20s	16m 48s	15m 36s	170
165s	10m 4s	10m 38s	11m 54s	12m 20s	12m 45s	12m 45s	15m 18s	11m 20s	12m 20s	9m 55s	17m 51s	16m 35s	165
160s	10m 39s	11m 15s	12m 36s	13m 3s	13m 30s	13m 30s	16m 12s	12m 0s	13m 3s	10m 30s	18m 54s	17m 33s	160
155s	11m 15s	11m 53s	13m 18s	13m 47s	14m 15s	14m 15s	17m 6s	12m 40s	13m 47s	11m 5s	19m 57s	18m 32s	155
150s	11m 50s	12m 30s	14m 0s	14m 30s	15m 0s	15m 0s	18m 0s	13m 20s	14m 30s	11m 40s	21m 0s	19m 30s	150
145s	12m 26s	13m 8s	14m 42s	15m 14s	15m 45s	15m 45s	18m 54s	14m 0s	15m 14s	12m 15s	22m 3s	20m 29s	145
140s	13m 1s	13m 45s	15m 24s	15m 57s	16m 30s	16m 30s	19m 48s	14m 40s	15m 57s	12m 50s	23m 6s	21m 27s	140
135s	13m 37s	14m 23s	16m 6s	16m 41s	17m 15s	17m 15s	20m 42s	15m 20s	16m 41s	13m 25s	24m 9s	22m 26s	135
130s	14m 12s	15m 0s	16m 48s	17m 24s	18m 0s	18m 0s	21m 06s	16m 0s	17m 24s	14m 0s	25m 12s	23m 24s	130
125s	14m 48s	15m 38s	17m 30s	18m 8s	18m 45s	18m 45s	22m 30s	16m 40s	18m 8s	14m 35s	26m 15s	24m 23s	125
120s	15m 23s	16m 15s	18m 12s	18m 51s	19m 30s	19m 30s	23m 24s	17m 20s	18m 51s	15m 10s	27m 18s	25m 21s	120
115s	15m 59s	16m 53s	18m 54s	19m 35s	20m 15s	20m 15s	24m 18s	18m 0s	19m 35s	15m 45s	28m 21s	26m 20s	115
110s	16m 34s	17m 30s	19m 36s	20m 18s	21m 0s	21m 0s	25m 12s	18m 40s	20m 18s	16m 20s	29m 24s	27m 18s	110

PHRF 130

14m00s + 11:15:00 = 11:28:43

- Course = OS#4
- PHRF = 130
- Time correction factor = +14 minutes 0 second
- Add time correction factor to the Race Start Time of 11:15:00
- Cross Start Time = 11:29:00