



Buoy Zone

Manage a Course





Purpose

- See Buoy Zone - Intro presentation for app download, sign up, and app navigation
- Planning your race course
- Logon as Race Officer / My Courses
- Create a Course
- Create a Course - Advanced Options
- “Trust but verify”
- How can I ... ?



Planning Your Race Course

Windward_Leeward_Course_Gate ☆ 📄 🔄

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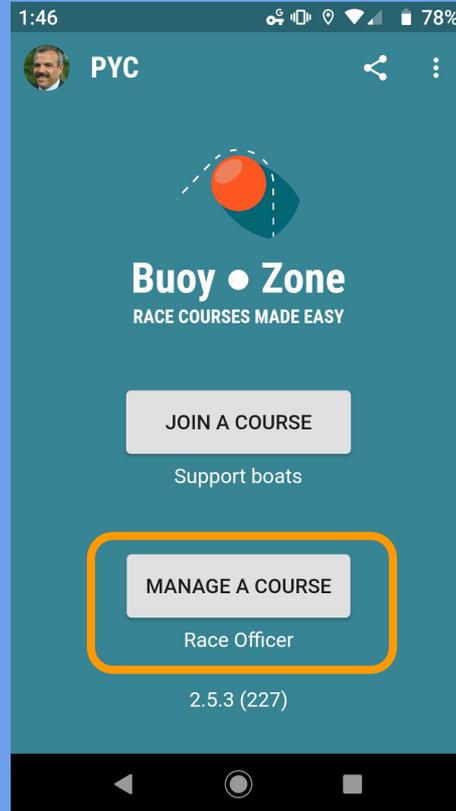
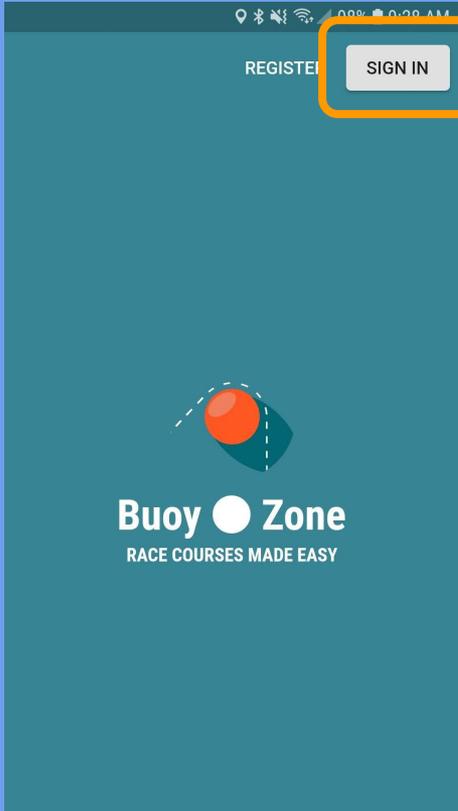
B4 | fx | =C\$1*A4*\$C\$2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Enter hull length		28	Gate width (feet)	224	67.88	meters									
2	Enter line multiplier		1.5			74.67	yds									
3	# of boats	Start line length (feet) (A)	Start line to reference point from signal vessel (feet) (B)	Length (feet) to reference mark (starboard gate) from signal vessel (C)	Angle to subtract from course axis (D)											
4	30	1260	518	599	66											10
5	meters	382	Leg Length (NM)	1482	meters											
6	NM	0.21	0.80	4861	Feet											
7	Stat MI	0.24		0.9208	Stat MI											
8	Line to leg	3.86														
9																
10																
11	Notes:															
12	Enter hull length in cell C1.															
13	Enter line multiplier in cell C2.															
14	Enter number of boats in cell A4.															
15	Gate width displayed in cell E1.															
16	Gate located 300 feet in front of starting line.															
17	Anchor signal boat. Direct mark boat to the reference point, B.															
18	Next direct mark boat to move 300 feet upwind and hold.															
19	Verify position with distance between signal vessel and mark boat location (C). Check bearing (D). Set starboard gate.															
20	Direct mark boat to set port gate (Gate Width). Windward															
21	mark boat uses the course axis to set windward mark.															
22																
23																
24																
25																
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A - Starting line length
 B - Distance to reference point from signal vessel.
 C - Distance to reference mark from signal vessel.
 D - Bearing from signal vessel to reference mark.
 E - Course axis.



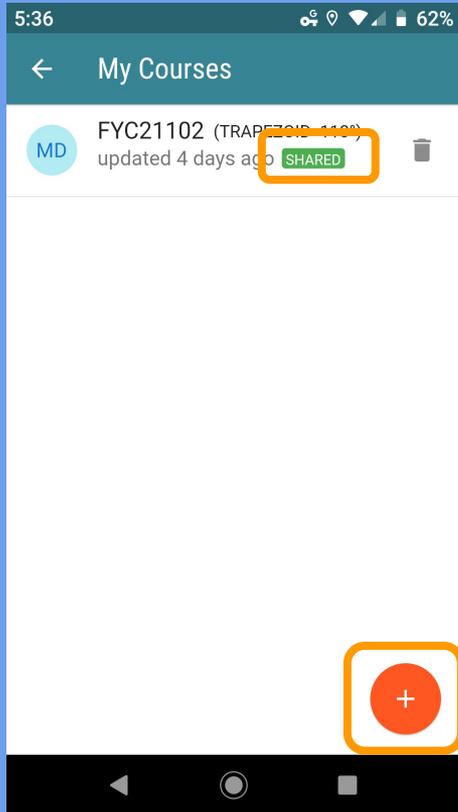
Race Officer Logon



- Ability to create and share courses
- Manage saved courses
- MUST subscribe for free trial or active subscription
- Options:
 - Monthly subscription
 - Annual subscription
 - Club subscription



My Courses



- My Courses shows courses you have created previously - green indicator to show if they have been shared (subscription needed)
- Ability to create new courses
- Shared courses are available in the list of courses for support boats to join who are registered at the same club
- Courses can be share with any Support boat by manually entering course code
- Courses are unique to a race officer, but cannot be shared between race officers

- Click the “+” button to create a new course



Create a Course

5:37 62%

Create course

Changing the host club here makes it only visible to members of this club, when shared.

Host country
United States of America

Host Club

Create a new course code. When you share your course it will automatically be visible to club members at (PYC). If a support boat is from a different club simply share this code with them.

Course Code *

9/16

10:27 92%

Course settings

Pewaukee Yacht Club

Course axis (°Mag)
260

3/4

Course size (nm)
0.8

3/5

Start-line length (ft)
1260

4/4

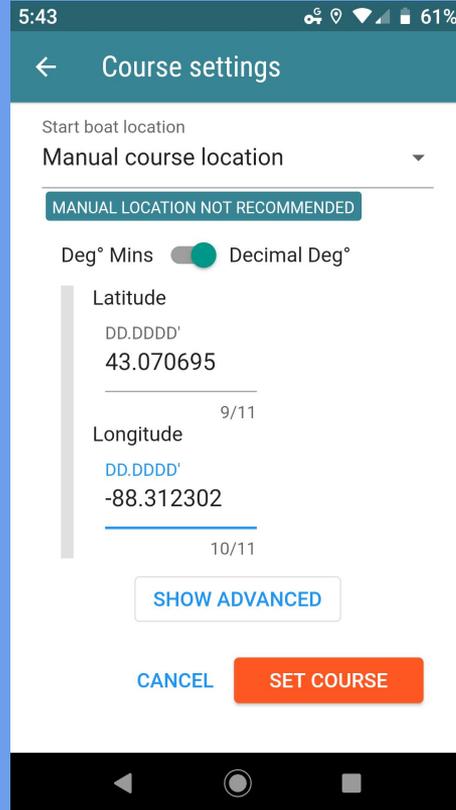
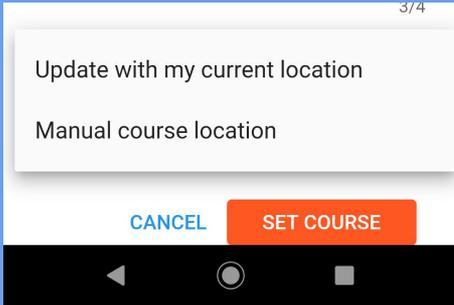
Start pin bias
+3°

Start boat location
Manual course location

- You can do this on the water, but often works well to plan your expected course and model it first
- Create a Course Code
- Enter Course Axis (compass bearing)
- Enter Course Size (windward leg length)
- Enter Starting Line length
- Start pin bias (+/- increments to 15deg)



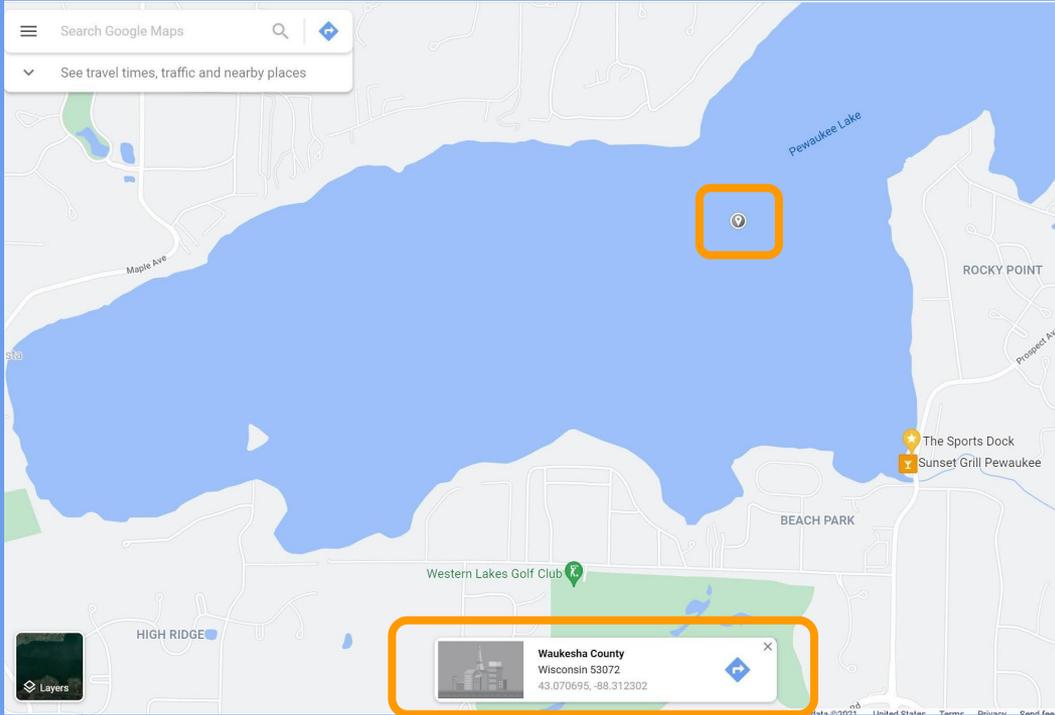
Create a Course



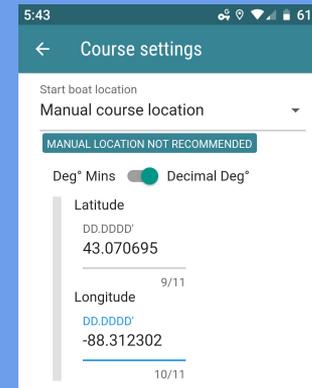
- Update with my current location:
Uses GPS from Race Officer's phone to plan course - IF YOU ARE MOVING, THE COURSE IS MOVING
- Manual course location: allows you to enter a GPS location for setting course
- Manually setting course allows you to plan course before you are on the water.
- You can switch to current location when you get anchored and update the support boats

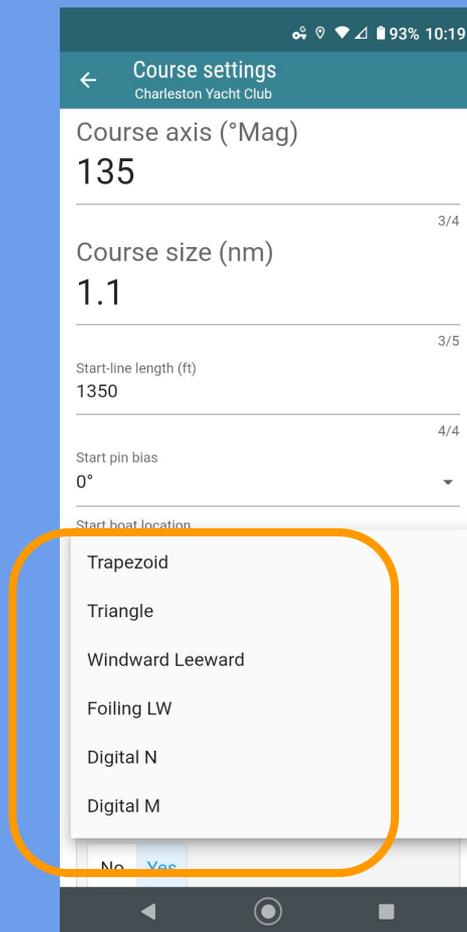
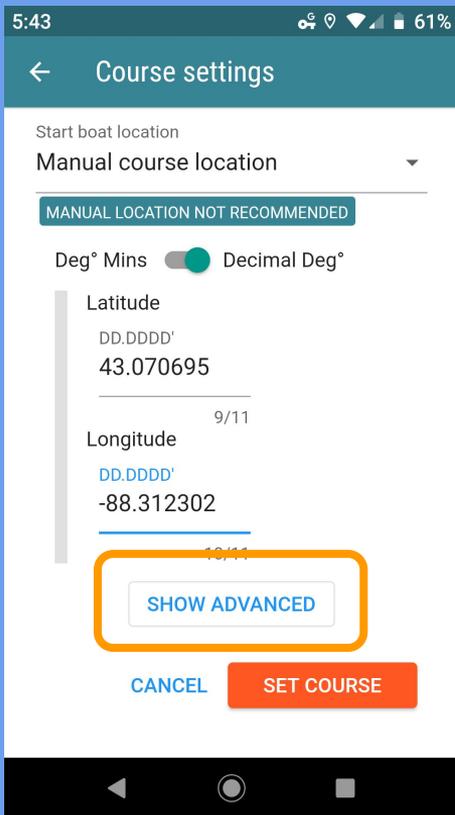


Create a Course



- Google Maps allows you to select a location to manually place a pin
- The GPS for that location is provided at the bottom of the map
- This is an easy way to plan your course in the general sailing area you planning





Create a Course

- Buoy Zone defaults to a Trapezoid course
- Select the SHOW ADVANCED for detailed course options:
 - Trapezoid
 - Triangle
 - Windward Leeward
 - Foiling LW
 - Digital N
 - Digital M
- Note from Buoy Zone: focus on Olympic style and widely used courses



Create a Course - Advance Options

5:46

Course settings

Course Type
Windward Leeward

Mark 1 Setting
 Mark Gate

Add 1A Mark
 No Yes

1A distance from mark 1 (ft)
132

1A angle
100

Add Extra Top Mark X1
 No Yes

5:47

Course settings

Add Extra Top Mark X1
 No Yes

Mark 4 Setting
 Gate Mark None

Start-line location
Below bottom mark(s)

Finish-line location
Same as start

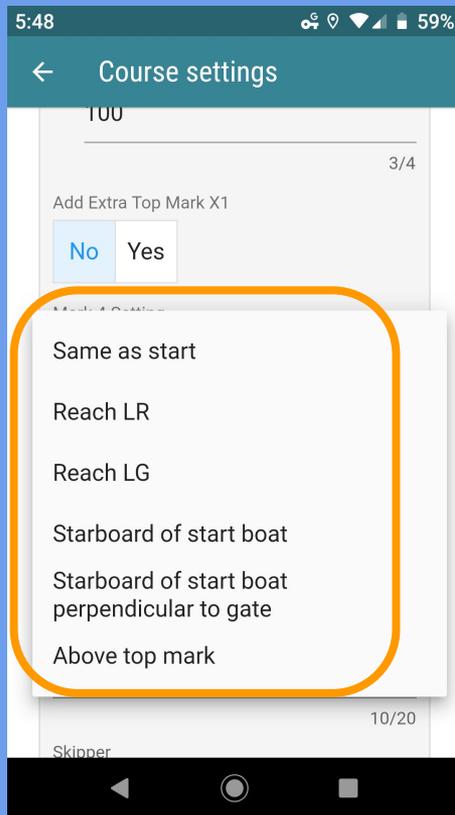
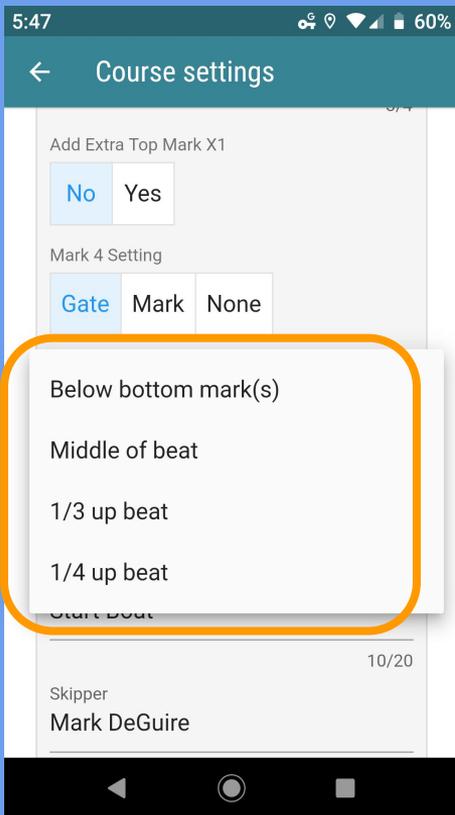
Boat Name *
Start Boat

Skipper
Mark DeGuire

- Mark 1 Setting (Windward Mark): single mark or gate
- Add 1A Mark: Yes / No - If yes,
 - 1A distance from mark 1
 - 1A angle: compass bearing relative to course axis selected
- Add Extra To Mark X1: Yes / No
 - Additional slide coming with details on Adding Extra Top Mark X1



Create a Course - Advance Options



- Mark 4 Setting (Leeward Mark):
Gate / Mark / None
- Start-line Location: (see note)
 - Below bottom mark(s)
 - Middle of beat
 - $\frac{1}{3}$ up beat
 - $\frac{1}{4}$ up beat
- Finish-line location:
 - Same as start
 - Reach LR
 - Reach LG
 - Starboard of start boat
 - Starboard of start boat perpendicular to gate
 - Above top mark
- Settings for width of finish line / gate follow in set up



Create a Course - Advance Options

5:50

← Course settings

Mobile number _____ 0/20

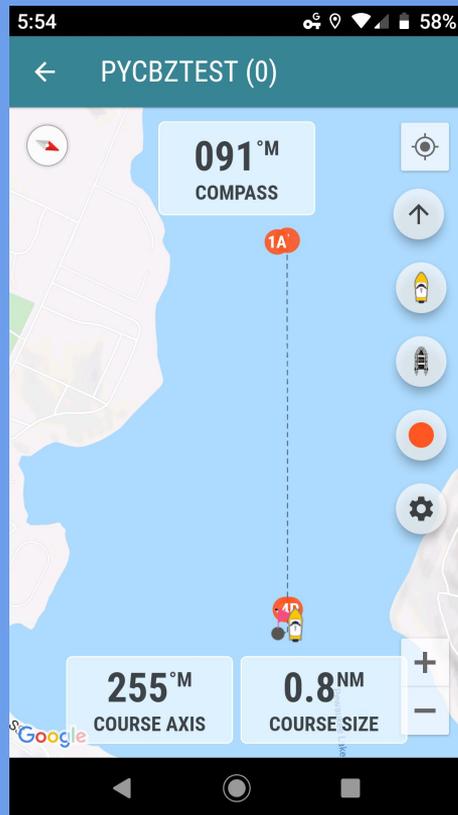
Finish-line length (ft)
99 _____ 2/4

Gate width (ft)
66 _____ 2/4

Gate distance (nm)
0.05 _____ 4/4

Shared with club

CANCEL SET COURSE



- Finish-line length
- Gate width
- Gate distance (from starting line location)
 - Set to 0 to have gates on the starting line
- Shared with club: check to have course displayed as option for all support boats registered for your club
- Click on SET COURSE to create course and display on map



Create a Course - Advance Options - Mark X1

5:51

← Course settings

Add Extra Top Mark X1

No Yes

X1 length (% of course size)
125

3/4

Extra Top Mark X1 Type

Mark Gate

Add XA Mark

No Yes

XA distance from X1 (ft)
132

3/4

XA angle
100

3/4

- Option to add Extra Top Mark X1
- If yes,
 - X1 length (% of course size) - from main course size setting
 - Extra Top Mark X1 Type: Mark / Gate
 - Add XA Mark: Yes / No
 - If yes,
 - XA distance from X1
 - XA angle: compass bearing relative to course axis selected



Application Layout

Course Code - number of support boats logged on in parenthesis

North direction indicator

Current bearing for YOUR phone (Note: try to keep phone horizontal)

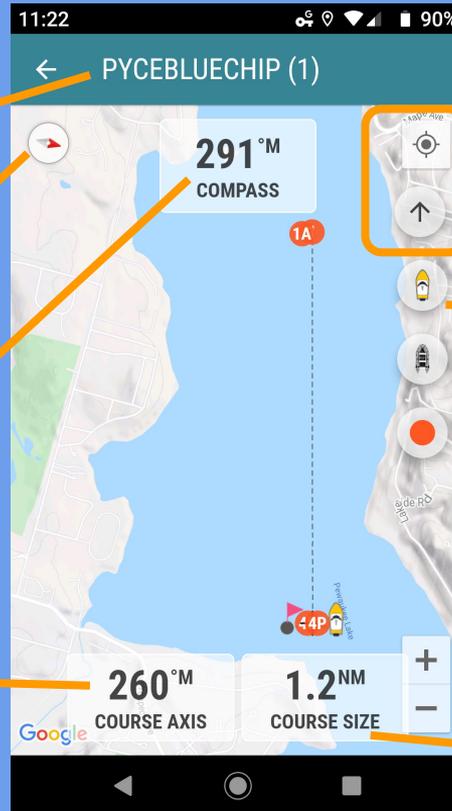
Course Axis set by Race Officer

Buttons to show YOUR GPS position on map

Button to show Race Officer position on Map

Buttons to zoom in / out on map (Note: 2 finger sizing also works)

Course leg length set by Race Officer





“Trust but Verify”

- Buoy Zone is a great tool to allow the entire Race Committee to “see” the planned course to set
- Communication on mark and boat locations is made more clearly without having to tie up VHF radio
- This is only one of the RC’s tools! It is strongly encouraged that all support boats still use hand-bearing compass, wind stick and GPS to verify course and mark position
- For RC members that are new to these tools, Buoy Zone is a great reference as they learn the tools

Tips to remember:

- Keep your phone horizontal (flat) to get best compass performance
- Slow down as you approach the Mark location and wait a bit to verify position as your phone GPS gets current



How can I ... ?

Change Course Axis after I move from starting line?

- You leave the location of committee boat from time to time but still want to be able to make course changes without shifting the course to be at your new location.
- To achieve this I would suggest that once you're in position (starboard end of the line) create a course but select the "Start boat location" to be "Manual course location".
- The default GPS coordinate it takes will be from your current location.
- From that point on, unless you change it, the course will be set from that location even if you move around.



How can I ... ?

Adjust gate location from weather mark boat input?

- This is a challenge in the app because the course is set relative to the signal boat location
 - See previous note on setting manual location
- Buoy Zone can still be used as a reference from weather mark input
 - When you get to the location of one of the desired gates. Note the distance and bearing in Buoy Zone to navigate to the mark you are setting
 - Select the other gate for navigation and go to the same distance and bearing away from the first gate mark