

Why didn't the RC throw boats out that crossed the USA/Canadian International Border?

There has been social media commentary and several very aggressive emails "asking" why the RC has not protested boats shown by Yellowbrick crossing the International Border.

First before starting the discussion on border crossings, I want to make it VERY CLEAR that Yellowbrick did a great job for us this year. The automated finishing process had one minor hiccup, but it was related to time format not accuracy. Linda manually corrected the time format for the first few (<6) boats while Luiz made the required software adjustment. Overall, we considered this a great first use of the automated finishing process.

Second point everyone must understand is that the Yellowbrick trackers are NOT like the handheld GPS you get at the marine or outdoor store. The GPS functionality is one of the modes that the tracker can operate in, but it is capable of many more. Each mode has its advantages, disadvantages and intended use. To be clear for the 2020 Bayview Mackinac Race we used two of the tracker's modes.

- 1) For the bulk of the race we used a mode where it wakes up every 15 minutes and takes a location, reports home to Yellowbrick and receives instructions on what to do next based on its position. This is the position reported on the Yellowbrick application. This data has interpolated positioning and smoothing of the data to make a more pleasing and hopefully more accurate depiction of the boats track. This is displayed in a graphic with an estimated rhumb line and other navigational features such as the International Border. This mode emphasizes battery life.
- 2) A mode much like a typical GPS except it is looking for the finish line based on the definition the RC provided to Yellowbrick. In this mode the GPS is just staying on and looking to cross the finish line. When it does it immediately reports its finish time and then Yellowbrick transfers that data to the BYCMACK web site. This mode emphasizes accuracy. The tracker automatically changed to this mode 20 miles from the finish line. The switch over target of 20 miles was chosen for a multiple of timing / potential boat speed and error mitigation reasons.

For the 2020 race we used these modes in a mutually exclusive manner. This year, with all of the hoops we had to jump through, hurdles we had to jump over and planning we did to pull off a race during a pandemic, quite frankly we did not plan on a need to prove with certainty that a boat crossed the International Border

I am shocked at the number of people that believe the Yellowbrick graphic display can be used for precision navigation and therefore immediately used for a protest or resulting in instant disqualification. The Yellowbrick graphic on a phone, tablet or a computer is for infotainment not navigational purposes.

Based on comments, related to a specific boat, I have spent the last 5 days learning a LOT about Yellowbrick and the open water navigational capability of a significant portion of our fleet. So, is the RC protesting that one boat that went over the border? The short answer is NO, and my question to all those crying for a protest, is which one boat? After working with Yellowbrick representatives to remove all interpolation between location wake ups from the track shown as well as determining the precision location of the International Border (the border was also represented on the graphical display as infotainment, not for navigational usage), then isolating just the location of the pings, ~10% of the finishing fleet convincingly was over the International Border. Now, let's consider those boats that were

really close. Those that were likely over but just happened not to get caught in the 15-minute position cycle. This adds another 10% or so. Frankly, I got tired of looking and counting.

A boat could be called over the border that in fact was not or the other way around. Additionally, a boat could cross the line & get back before the next ping so they wouldn't show up as being over. In short, the rule couldn't be applied fairly.

There are a lot of people out there in the internet world that would have the RC throw out somewhere between 10% to 20% of the finishing fleet. I simply do not believe that is good for our sport. If 20% of the people in any situation take the non-desired action, I personally believe we have a systemic educational issue and not a fleet full of cheaters as many people want to believe.

If, in the future we have to use Yellowbrick to patrol a boundary, and therefore critical that we catch every boat crossing a boundary on the race course, then we need to do just as we have done for the finish. Turn the trackers to the same mode they were in when they captured the finish time and have Yellowbrick create the protest list based on the data. If we were to do this, we must remember that it **will not** distinguish between 1 second, 1 minute or 1 hour. Over will be over, out is out. I personally do not believe this level of Big Brother is good for our sport.

With all I have said above does this mean I did not take this issue to the jury? I did take this to the Chief Judge as soon as I had hard data to support the claim boats being over the border. At that time I was informed that the jury would likely not hear the protests because the time limit had passed. Additionally, it is NOT required of the RC to protest rules marked "NP", but they may. World Sailing refers to this as a discretionary penalty where the severity of the infraction is judged based on a series of criterion. So assuming the jury heard the protest, assuming a boat was found in violation, it is unlikely a significant penalty would have been imposed such that scores would have changed.

I know there are many out there that will simply look at the tracker and believe it is conclusive. To those people I ask, are you sure you were not over the border and are you one of the 10% - 20% discussed above?

To everyone that respected the International Border, Thank you!!

In summary:

- Yellowbrick did a fantastic job!
- The racecourse was tough.
- The conditions were tough.
- We had a great race.
- Our volunteers worked very hard in a continuously changing environment.
- Our Staff did an amazing job.
- We will take the learnings from this year and apply them next year.