

### Buenos Aires to Rio de Janeiro Race

*"Blue-water yachtsmen who have made the 1,200-mile thrash from Argentina to Brazil are convinced that the triennial Buenos Aires-Rio race is the most infuriating test of men and boats yet devised. The prevailing north-easterly head winds often hit 40 knots or more. Complicating matters is the mast-snapping pampero, a westerly-land wind that frequently howls off the pampas at even greater force—only to die in a sudden, glassy calm. The Brazilian Current—the backwash of the Gulf Stream—is supposed to flow southward at two or three knots. But it weaves like a snake and sometimes dies like the wind." (TIME Friday, Mar. 05, 1965)*

<http://content.time.com/time/subscriber/article/0,33009,839318,00.html>

This does sound like the B-A to Rio Race that we 142 SOLers just sailed doesn't it? We all suffered frustrations during the race particularly the majority of you who chose to seek higher winds offshore, the traditional most favoured winning course of both SOLers and on-the-water boats in the past. Before boats were carrying "trackers" radio silence was often maintained by boats heading off-shore!

I still consider myself to be very much a SOL beginner so for **Satori** to be on the Podium for the first time and to have our first SOL win was very exciting. This is particularly so when it was described by **ij** as a "decisive win" and that fellow SOLers further described as "brilliant, masterful, amazing, smoked us". How do I write a report that justifies such accolades when I am as surprised at our win as you must be! I think that there was more luck of the Irish than sailing brilliance since my 82nd St. Patrick's Day birthday occurred during the race. As **Mirek** said a nice birthday present!

**Satori** finished the Race ~3 ½ hrs ahead of 2nd place **Zorba777** and ~5 hrs ahead of 3rd place **sailj29**, who admiringly sailed the race SOTP's. The three of us sailed inshore as did **HappyHour** who was the first boat to round Punta del Este out of Harbour of Buenos Aires and led the Race in the beginning. The 4 inshore boats sailed ~75 fewer nms. **Zorba**, who is no stranger to the Podium, should be particularly commended having suffered a BBQ and a day with no internet.

It took **Satori** 6d 3h 29m 11s with an average BS of 8.8 knts. to complete the race in SOL's Santa Cruz 70. This compares with the actual race record of 4d 9h 55m 45s set in 2008 by the Reichel Pugh 90ft **Rambler** owned by George David and skippered by Ken Read which averaged 11.85 knts.



(Picture from Sail-World Australia Edition 21 Feb 2008)

## The Race

Although a SOL Beginner I do have the advantage of being retired and the time to plan and tackle the Race with the same intensity and undivided attention that I put into long-distance sailing on-the-water. I use both Qtvlm routing software and **Kipper's** AGL (Automatic Grib Loader). If you have an interest in using these tools you will find on the SOL Home Page Links Part I of a Beginner's Guide to Using Qt put together by **Satori, Dingo** and others. Parts II and III are yet to be posted but you can contact me if you would like me to provide you with copies. You will find information relating to **Kipper's** AGL in the SOL Forum. There is no question that these tools will help you get into the TOP TEN, notwithstanding **sailj29's** superb performance sailing SOTP's in this Race. **Satori** would not have won this Race without the use of Qt and AGL.

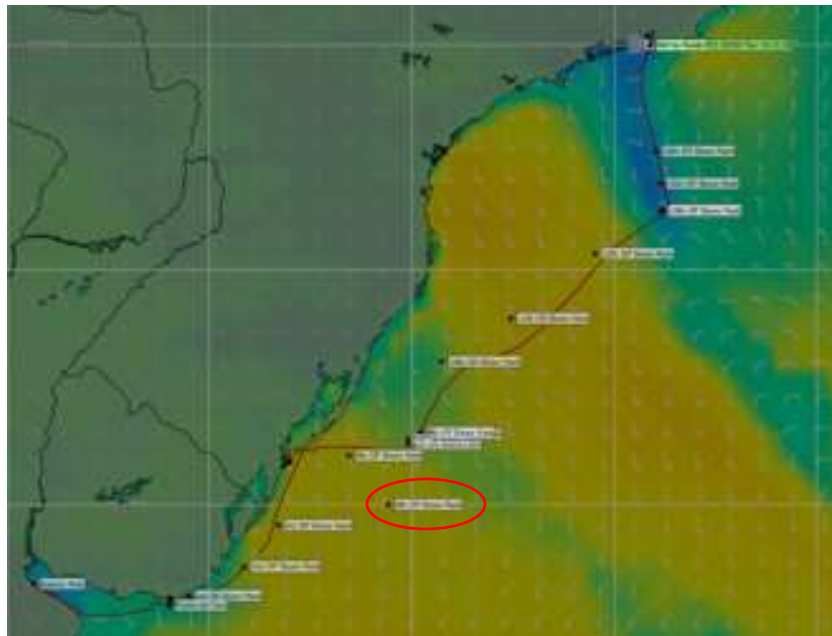
First let me tell you what this SOL beginner's routine was in this Race which I have adapted from conferring with my SOL friends, **FreyjaUSA** and **WSguerlin**, as well as helpful advice received from **Dingo**. I am sure the high ranking SOLers have more perfected, and maybe even simpler, routines! I realize that not everyone can afford to take the time that I devoted to this race during which I made copious notes and screen prints which keeps me occupied and awake during the race when the SOL Poets are not at work out-doing one another and amusing us with their rhyming skills!

- Prior to the race I went into the SOL Archives to find the Reports on the last time the Race was run in February 2020, which would have coincided with the on-the-water race. Always helpful and started me thinking offshore was the way to go. I posted the URL of those reports in the Chat Room before the race started.
- On the morning of the Race I downloaded a 16 day weather grib from Saildocs, using the Qt automated email ordering, which I posted to Qt Grib Slot 2. I regularly updated this throughout the race. I will comment on the importance of the grib order settings being in sync with SOL.
- In Qt I created a Pathway to Rio using the fixed race start time.
- I put Barriers in across any open inlets so that Qt did not explore them when creating the routing in order to simplify the routing and shorten its creation time.
- I created a Simplified Qt routing to Rio using a Pathway, the race Start Time, the SOL 6 day WX Mar 13th 10:30 UTC and the 16 day Saildocs grib which produced a routing very similar to what Satori actually sailed. Optimization of the routing would have taken too long, about an hour.
- I placed my 1st Offshore Mark directly on a POI, in this case 31 hrs along this Routing, to be used to produce a shorter routing while racing. Using a POI allowed me to compare the arrival time of the shorter routing at the 1st Off Shore Mark and it was 16 mins faster. The AI algorithms of Qt make compromises that can often be bettered by a series of shorter routings something I learned from **FreyjaUSA** and **WSguerlin**.
- As a precaution I posted the DC's of this shorter routing to the 1st Off Shore Mark to SOL via AGL to make sure that I had DC's for the Start with the last WX being ½ hr before the start.
- In SOL I used the weather slider and the DC-aware Predictor to slowly go through the future weather pattern to see if the routing was leading **Satori** into any low pressure areas that could be avoided by moving the 1st Off Shore Mark. Throughout the race I placed 16 Off Shore Marks.
- Thereafter throughout the race my routine was consistent with each WX:-
  - Set my alarm for the next WX
  - Download an updated Saildocs grib

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- Create a routing to next Off Shore Mark and post it to SOL via AGL
- Before Exporting the Log from Qt to **Kropper's** Converter I would immediately change the course of the boat in the SOL Command Box to the new COG and edit the first DC in SOL to the new COG course. A **Dingo** trick that results in limited delay while converting, conditioning and posting DC's to SOL via **Kropper's** converter and AGL. (I have two monitor screens with, in this case, Qt open on one and SOL on the other.)
- With **Satori** sailing a new routing I could then take the time to create a simplified and optimized routing to Rio for determining the placement of the next Off Shore Mark again placed on a POI of the route. Usually this was on a tack which often shows up 6/12 hrs ahead just before or after a WX!! This is where I would cover the competition and considering tacking earlier or later always wanting to be to windward to give me the option of dropping down to cover the competition. Sometimes I delay posting the new route to SOL until I see what they are doing! I don't want the PL of a second tack.
- I again used the weather slider and the DC-aware Predictor to study the future weather pattern to see if the next Off Shore Mark should be moved. If that occurred I would produce a new routing to the moved Mark.
- I was always checking the weather ahead which sometimes resulted in me doing a new routing between WX's.
- I was regularly checking the Rio ETA of the competition using their AIS in Qt. I would place a New Mark on their boat in Qt and create a routing from that Mark to Rio for comparison with **Satori's** ETA. So I always knew where **Satori** stood in the race. What I, and none of us, could depend upon was the ever changing impact of the pampero on the movement of the often erratic low and high pressure areas and their size and shape.
- I was also regularly checking the Boat Data Log in AGL to see the course being sailed by the competition and their comparative BS, COG, TWA and VMC. I could mathematically check to see how long it would take to overtake **Satori** or visa versus.

Let's start by looking at **Satori's** sailed course.



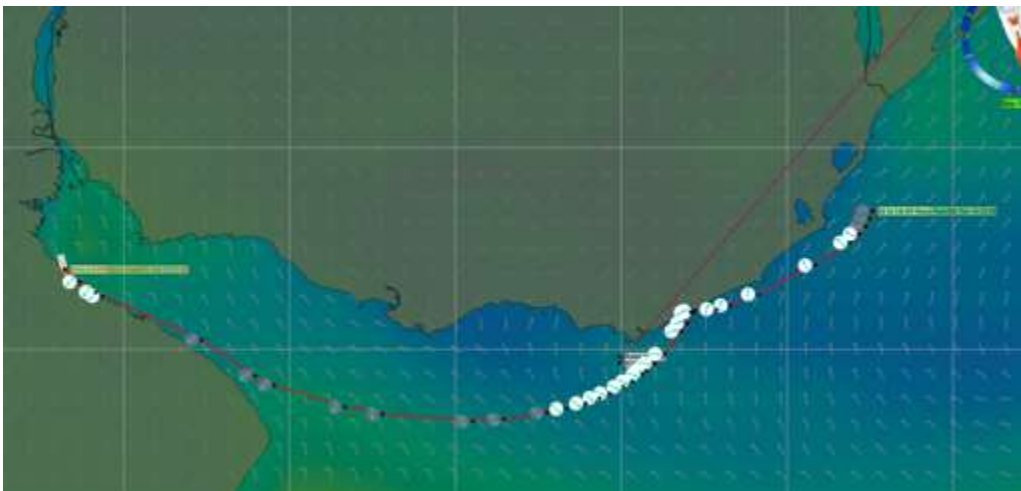
## Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

You can see the 16 Marks that were placed off shore for creating shorter routings. Joining them would show how Qt was routing **Satori** to Rio each WX during the course of the race. The weather seen is just after **Zorba** finished.

Not tacking to sail to the 4th Off Shore on March 15th and staying inshore turned out to be pivotal in **Satori's** finish. **Mirek** and the usual suspects 90 nms to the southeast actually went from being almost 8hrs ahead of **Satori** to 4 ½ hrs behind. This certainly was the worst and most dramatic weather change in the race as far as **Satori** was concerned. Before making the decision to stay inshore it looked like **Satori** would finish well down in the rankings. So frustrating when there was still 5 days and 865 nms to go. I even got a discouraging message from **Zorba**.

Now back to the start and how **Satori** got on this inshore course. At the time **Satori** was still sailing in the 3rd Leg of the Central Triangle Race from Napier to Wellington NZ and I do find sailing in two races simultaneously just about all I can handle if done with care. I have no idea how other SOLers can sail in multiple races at the same time! Too much for this old guy! I warn you that multitasking degenerates in old age!!

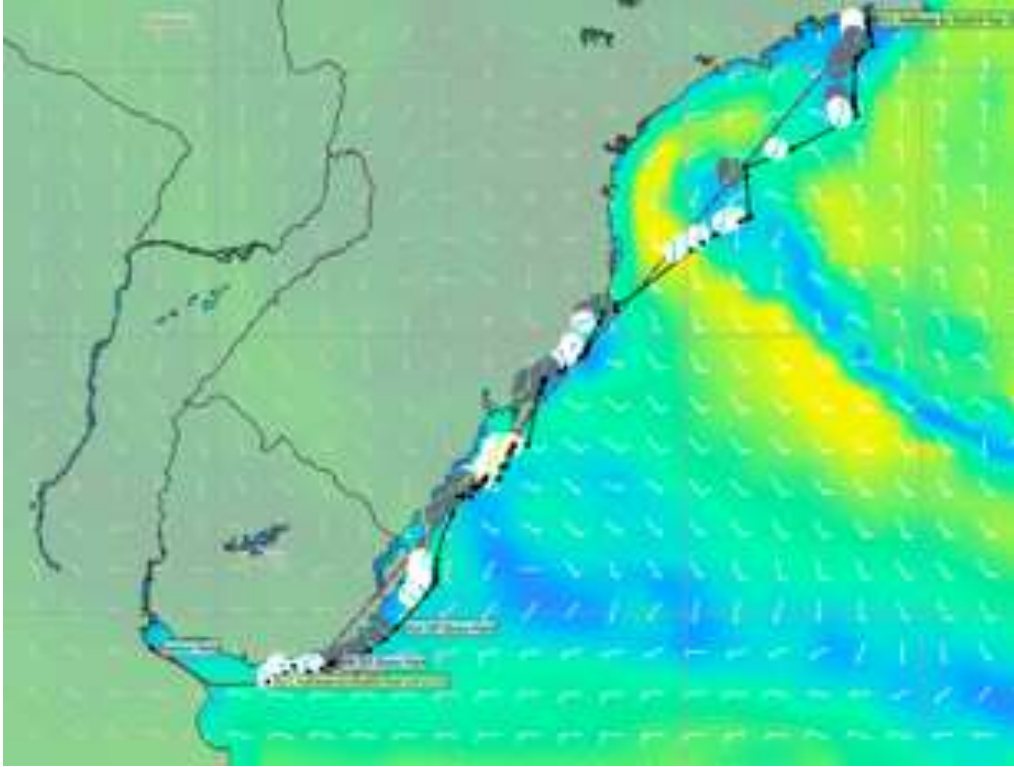
Here is **Satori's** Qt routing out of Buenos Aires Harbour to my 1st Off Shore Mark.



Here is where I had a strange perplexing problem. When I posted the DC's, for what looks like a perfect routing around Punta del Este, to SOL either through AGL or Brainaid the routing went ashore for a BBQ well before Punta del Este? I never did solve this issue. I checked the coastlines in Qt to make sure they were in high resolution. I concluded that the weather in Qt had to be different than in SOL. Only later did I conclude that settings in Qt for the Saildocs grib which I had mistakenly set for .25° and 3hrs was not synchronized with SOL and should have been .5° and 6hrs and was producing a different result than was produced in SOL's weather. To compensate I started uploading just 12 hrs of DC's of this route.

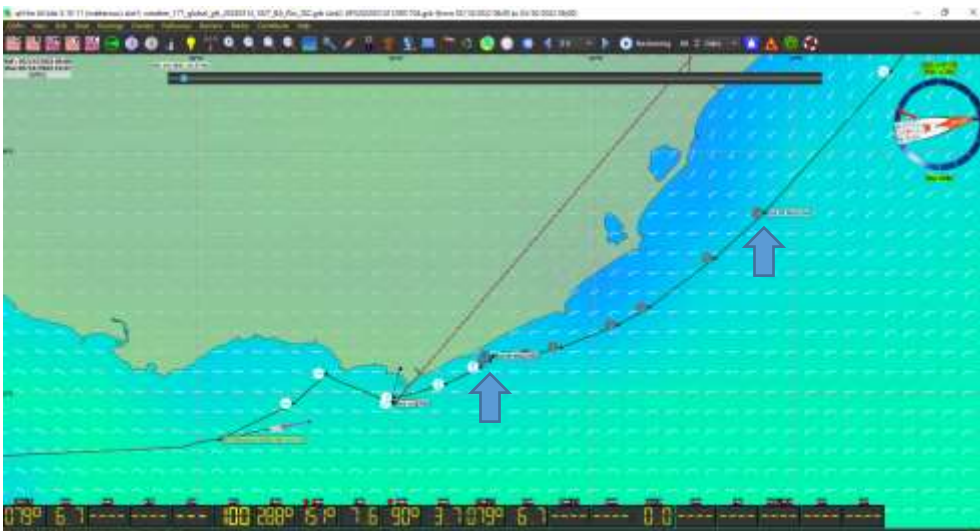
A number of the SOLers, including **WSguerin**, left the starting line going north and then tacked to parallel the south coast of the harbour but being to windward they were able to drop down with better BS and get ahead of **Satori**. At first I took over the helm and dropped down to cover the fleet that was heading off shore and were now ahead of **Satori** but none of my routings were taking me off shore!

Satori's Report on Buenos Aires to Rio de Janeiro Race 2022



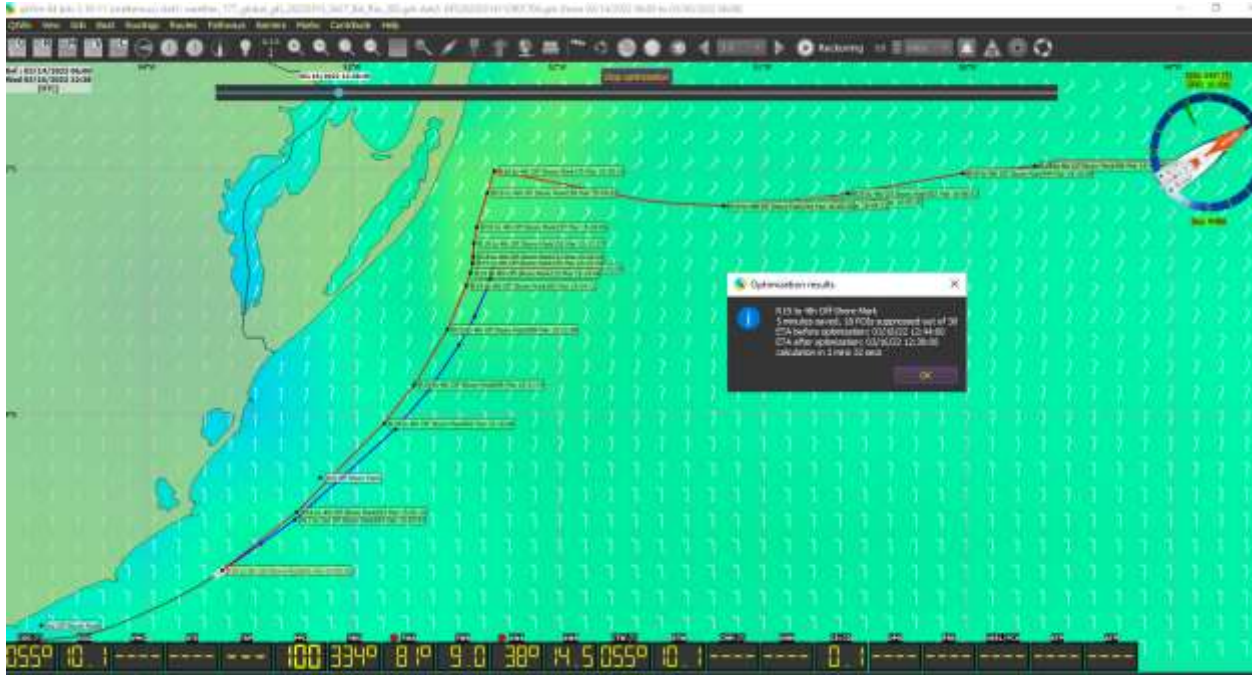
For the life of me I still have no idea how **Mirek** and the usual suspects got a routing to take them off shore. The GPS in my car will not take me on a road that dips below 90° from the compass straight line course to the destination. I think that Qt is the same, dictated by the Range setting which I have as 179°. In other words, standing on the deck facing the bow with my arms out to the side Qt will not look aft of my arms to find a course. Going south-east as **Mirek** and the usual suspects did seems out of reach for Qt with a Range setting of 179°. I will be waiting to learn if they got the routing they took from Qt!

After I took the helm, here is the Qt course I sailed to round Punta del Este to 2 new Marks for shorter routings. **Satori** rounded 2nd after **HappyHour**. At this point **WRmirekd** is 46 nms to the south with the usual suspects in higher winds and +2 knts in BS. Eventually they were over 70 nms south-east.

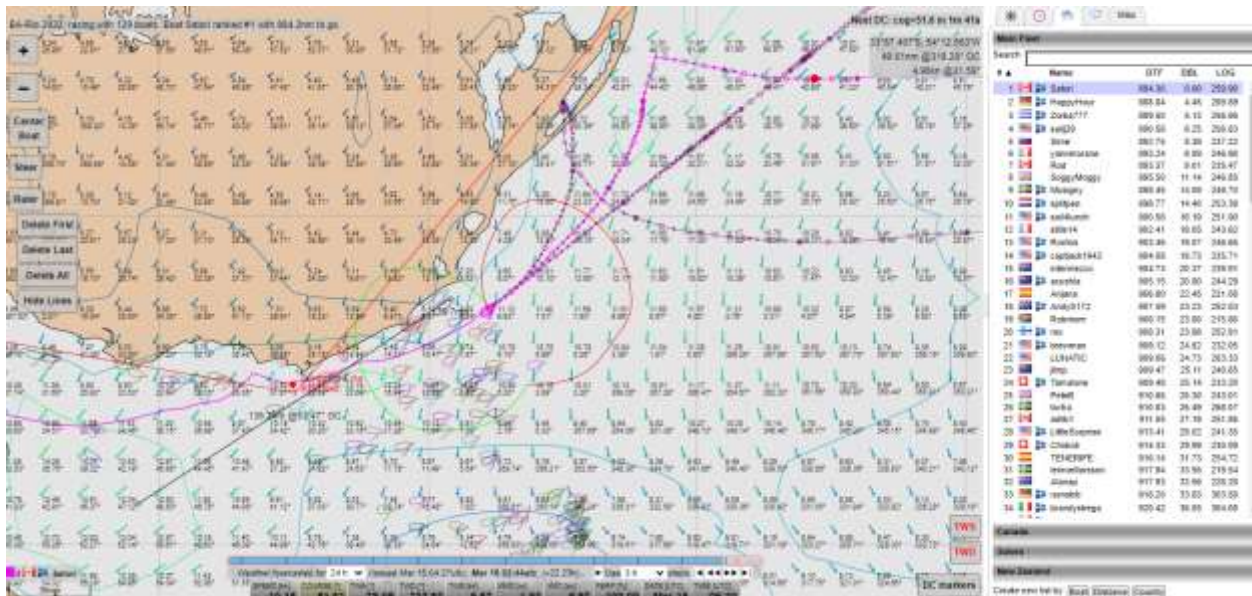


## Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

Here is the Red routing to the 4th Off Shore Mark which **Satori** did not sail. I did not like the Rio ETA result and I downloaded a new Saildocs grib and proceeded to produce an alternative routing.

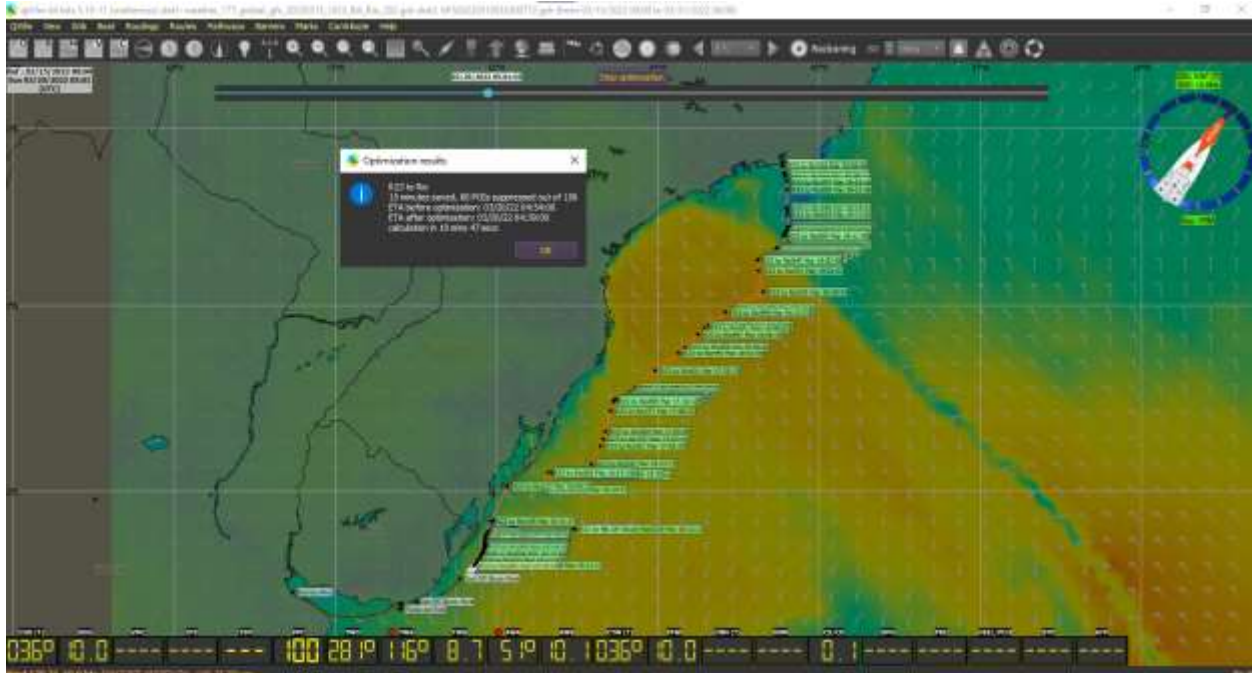


I was worried about this pampero weather impact that you can see with the TWA predictor and if it would die out. This turned out to be a critical decision in the race for **Satori**. The usual suspects were 90 nms to the south-east.

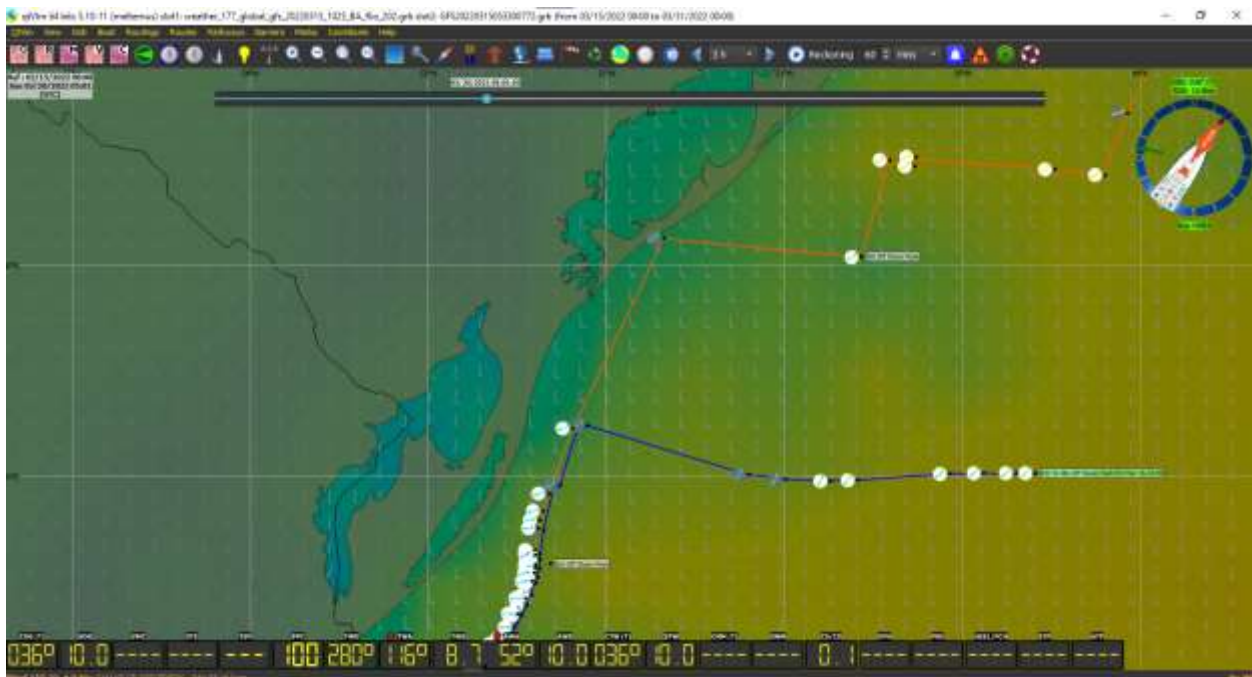


## Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

While Satori was still sailing the route from the previous WX Mar 15th 10:53 UTC I created a new route to Rio from the Routing Start in order to place a 5th Off Shore Mark as a result of the significant weather change revealed by the previous routing. It took 45 mins to create the routing and it resulted in a Rio ETA of Mar 20th 04:39 UTC, an improvement of 6hrs 14mins. **Satori's** actual finish time was Mar 19th 20:29:11 UTC. You see that this Orange routing has **Satori** staying inshore.

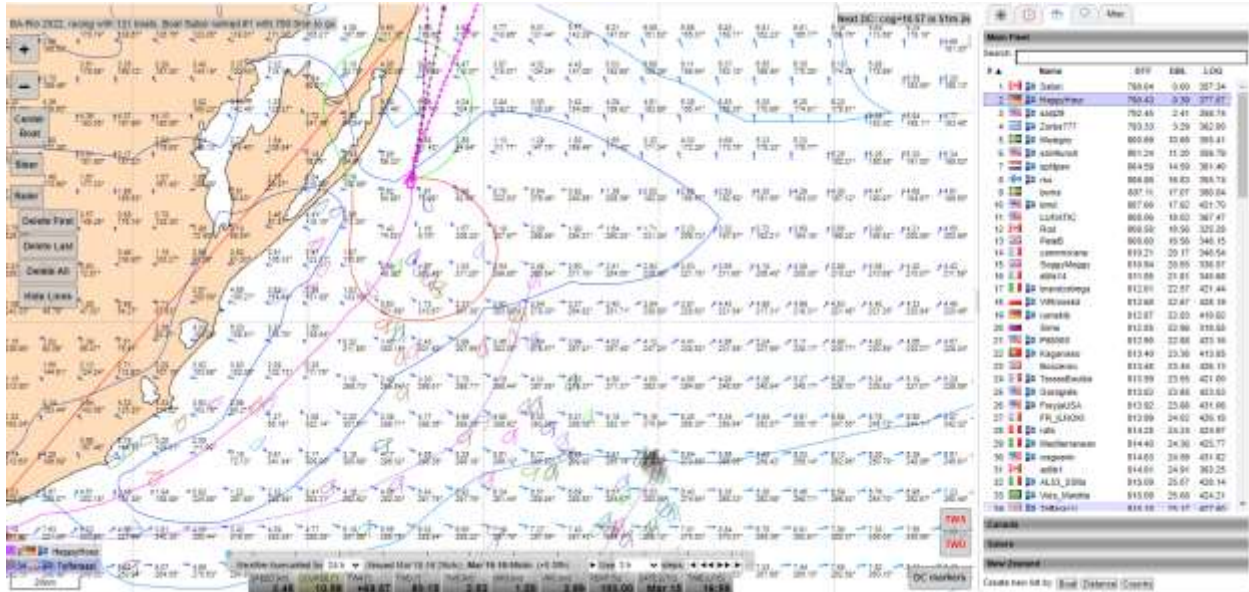


Compared to the previous Blue routing. Pivotal in Satori's finish. A testing of **Mirek's** finish has his ETA in Rio 4hrs 17mins after **Satori**, an improvement for **Satori** of 6hrs in just one WX!

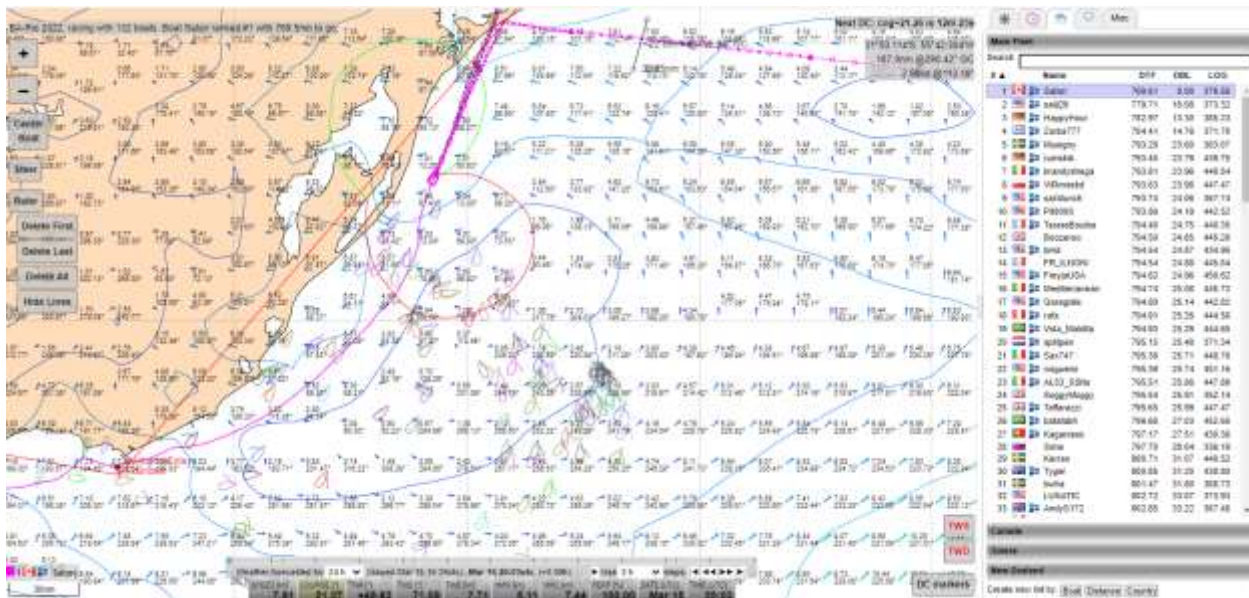


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Satori is in 1st place. **HappyHour** has reduced its DBL to 0.50 nms but is entering a wind hole that **Satori** is leaving and will be in it for another 4 ½ hrs. **Sailj29** has tacked to follow **Satori** out of the wind hole in 39 mins. **Mirek** leads the southern fleet with a DBL of 22.15 nms. #21 **wsguerin** with a DBL of 21.59nms has an ETA in Rio of Mar 20th 11:30 UTC. **Satori's** routing ETA is 07:14 UTC 4hrs and 15mins earlier.



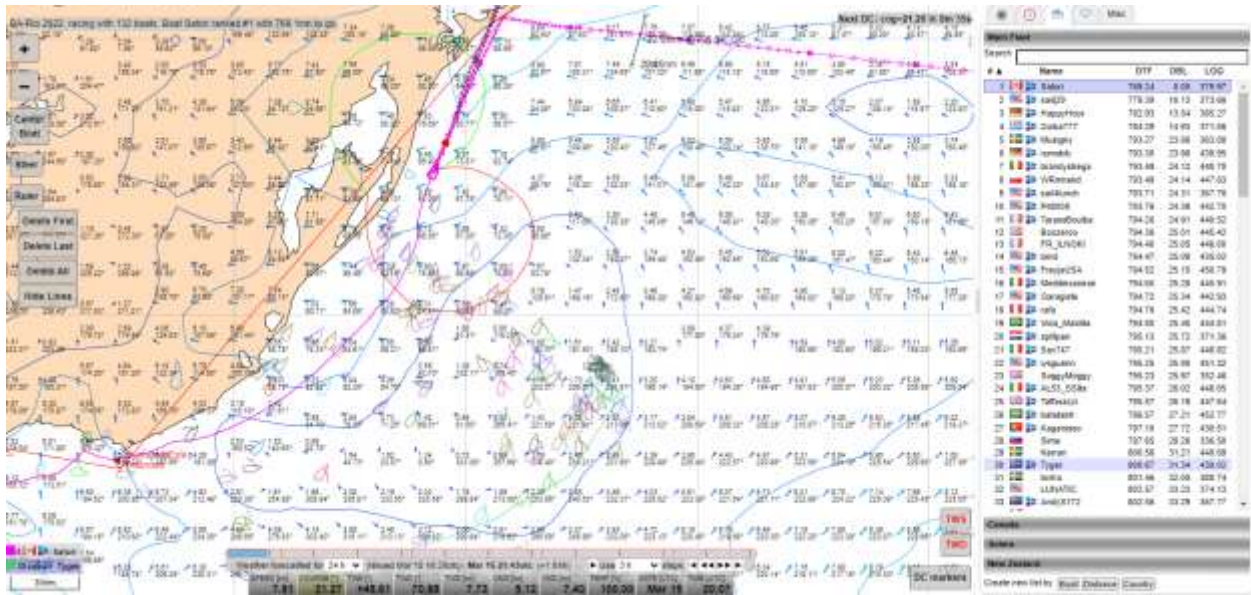
Southern contingent Mar 15th 20:03 UTC just out of wind hole as it momentarily moves west



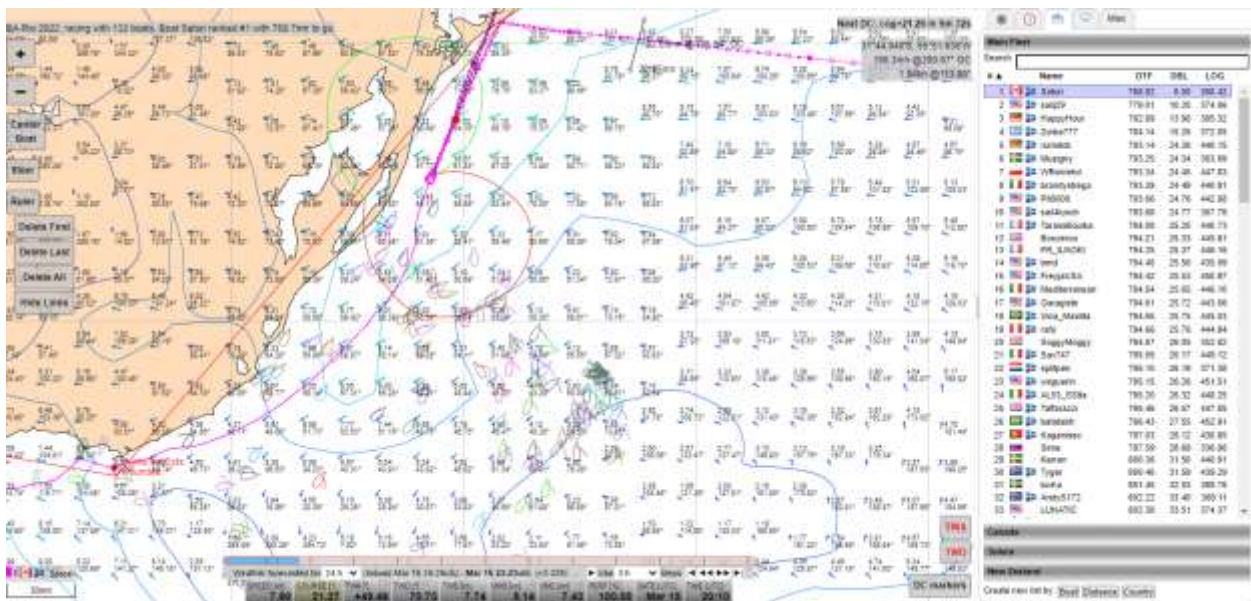


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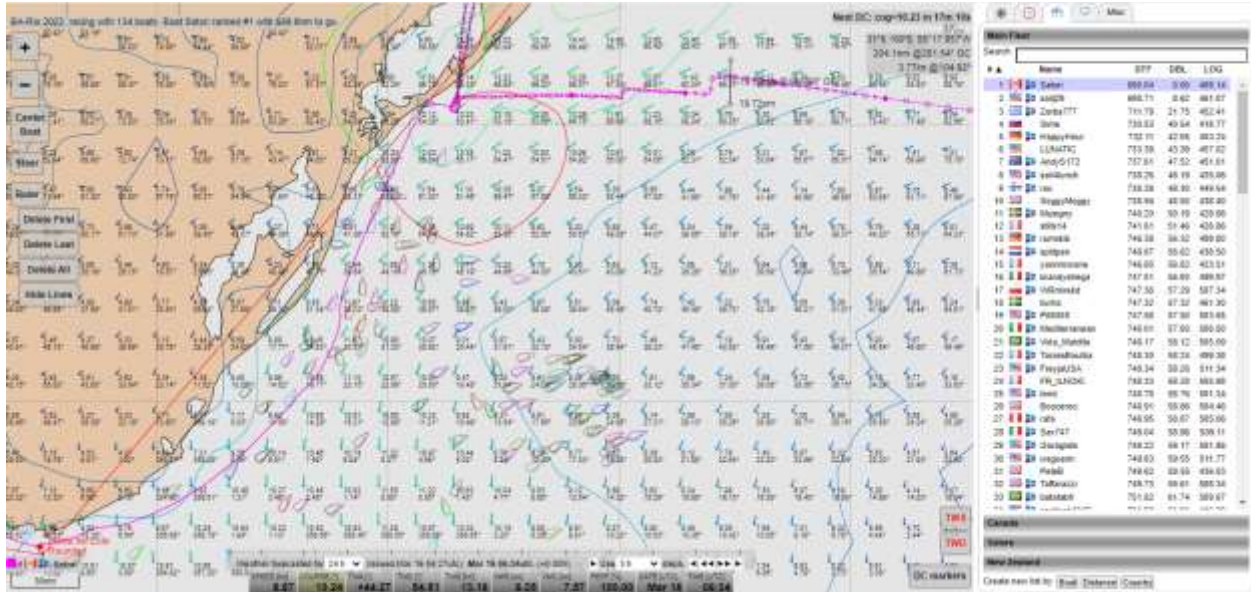
for an hour and then stops and moves east again trapping them for another 2 hrs.



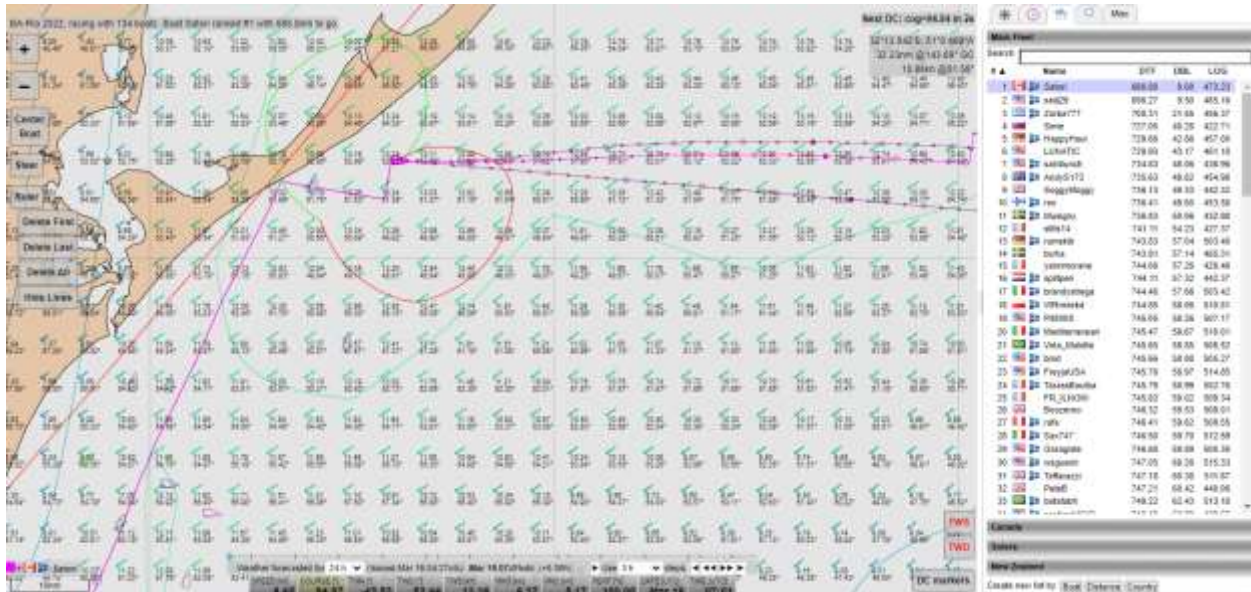
Mar 15th 23:23 UTC it is almost finished passing east over them.



**Satori** is 1st and sailing R35 Red to 7th Off Shore Mark ETA Mar 16th 21:17 UTC. 2nd boat is **sailj29** DBL 8.80 nms and 3rd **Zorba** DBL 21:73 nms. Did a test routing of southern fleet using **Mirek's** position. **Satori** is ahead some 10 hrs so I need to concentrate on staying ahead of **sailj29** and **Zorba**.



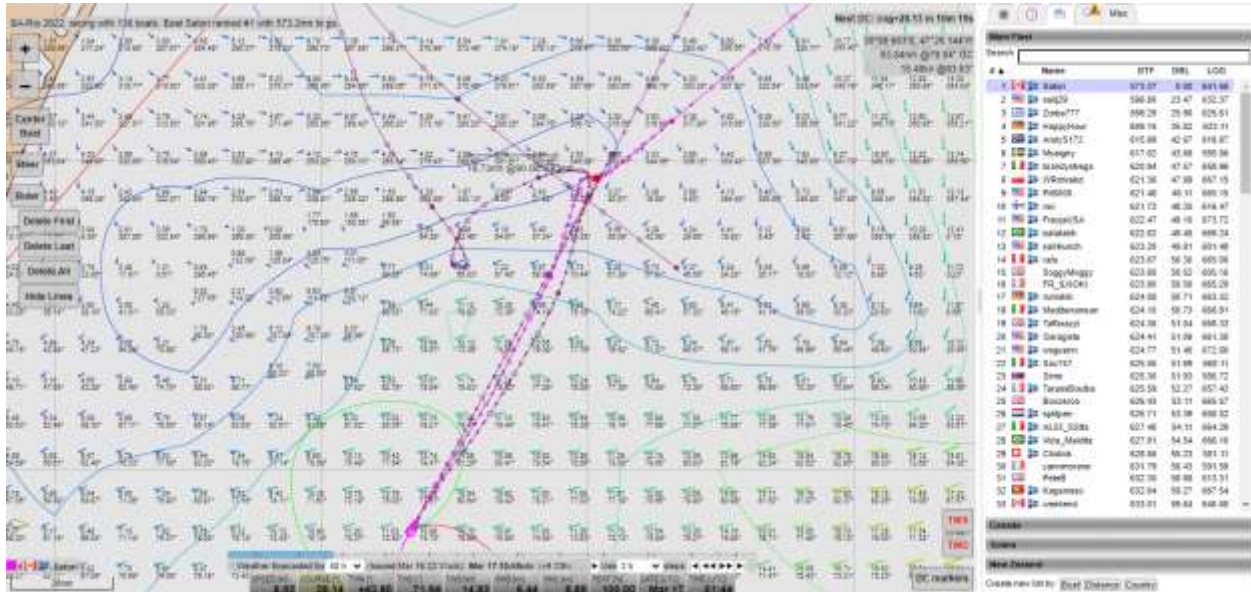
**Satori** has tacked so I am off to bed. It is 3 am! Next WX 6:30 am. I will find out in the morning how far up the coast **sailj29** tacks to get to higher winds than **Satori**! He is doing it using a slightly better TWA to gain BS at the expense of distance. If I was up I would cover him.



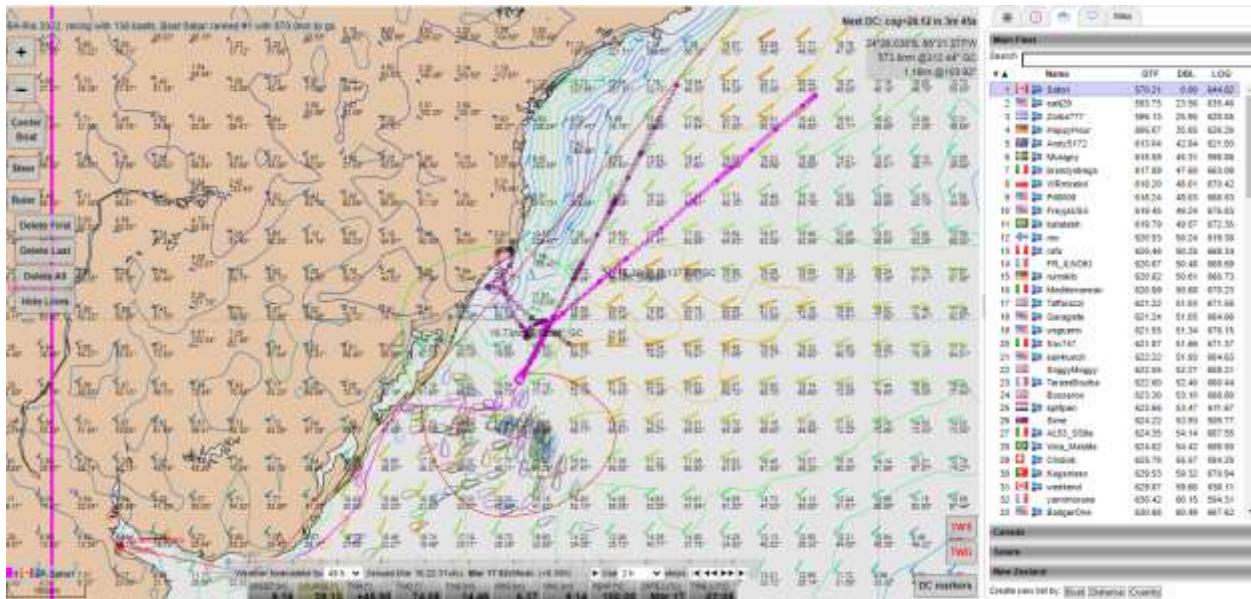
# Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

This Report is getting long so I will skip ahead a bit and maybe just focus on the dramatic wind changes.

Mar 17th 01:44 UTC there is a wind hole ahead in 9hrs. **Satori** is just subjected to the eastern end of the centre and you would have to be 65 nms to the east to miss most of it which would have consequences later.

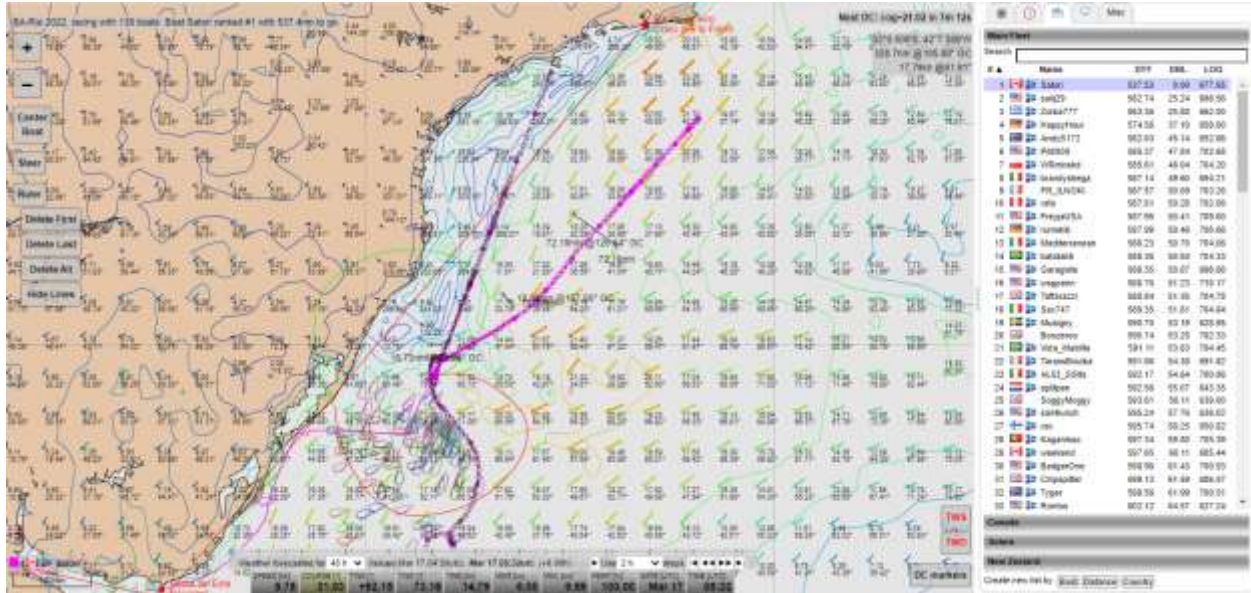


The southern pack. You can see the TWA predicted track 90° west then a 360° return.

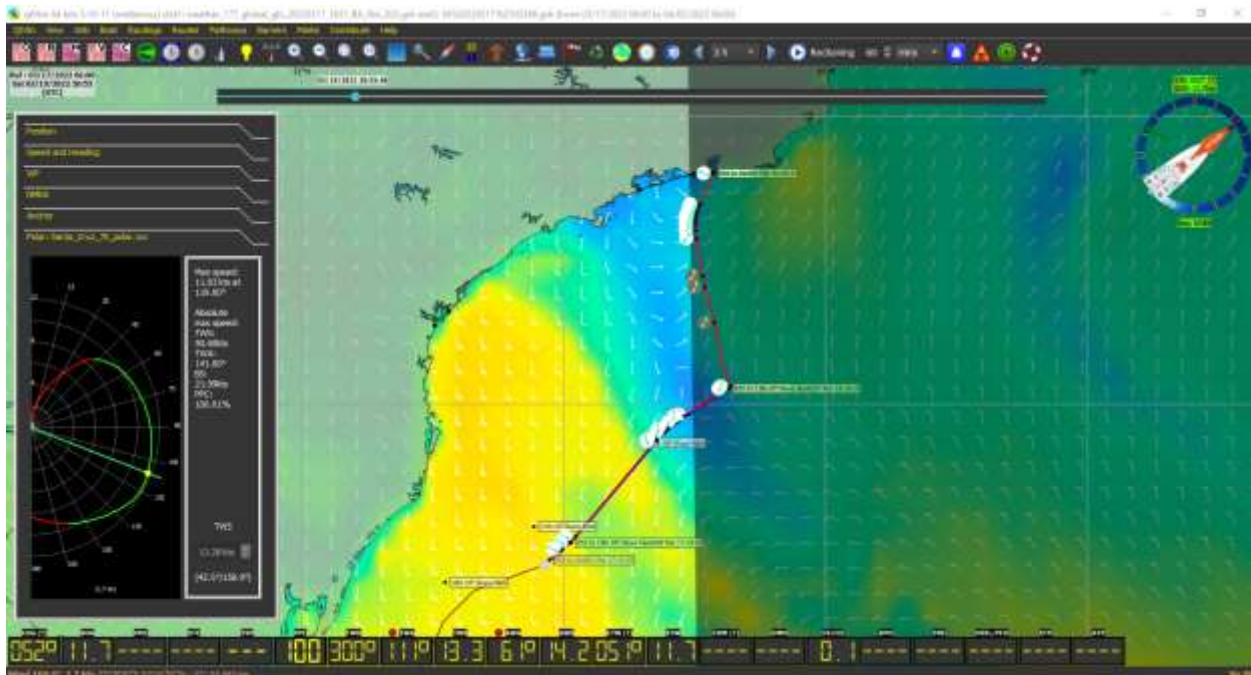


# Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

Mar 17th 05:20 UTC here is the wind clocking 180° in an hour to cradle the southern contingent and forcing them to head east.

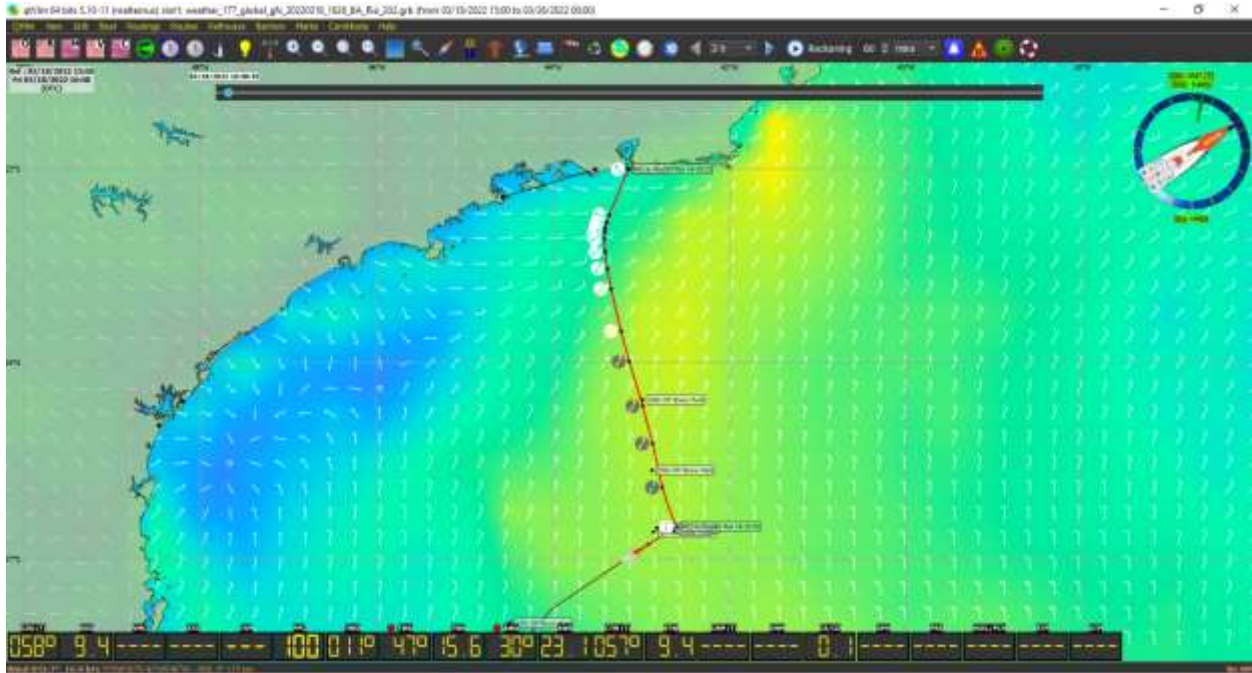


Mar 17th 16:49 UTC Satori is heading north east hoping to cross this low wind river flowing out of Rio.

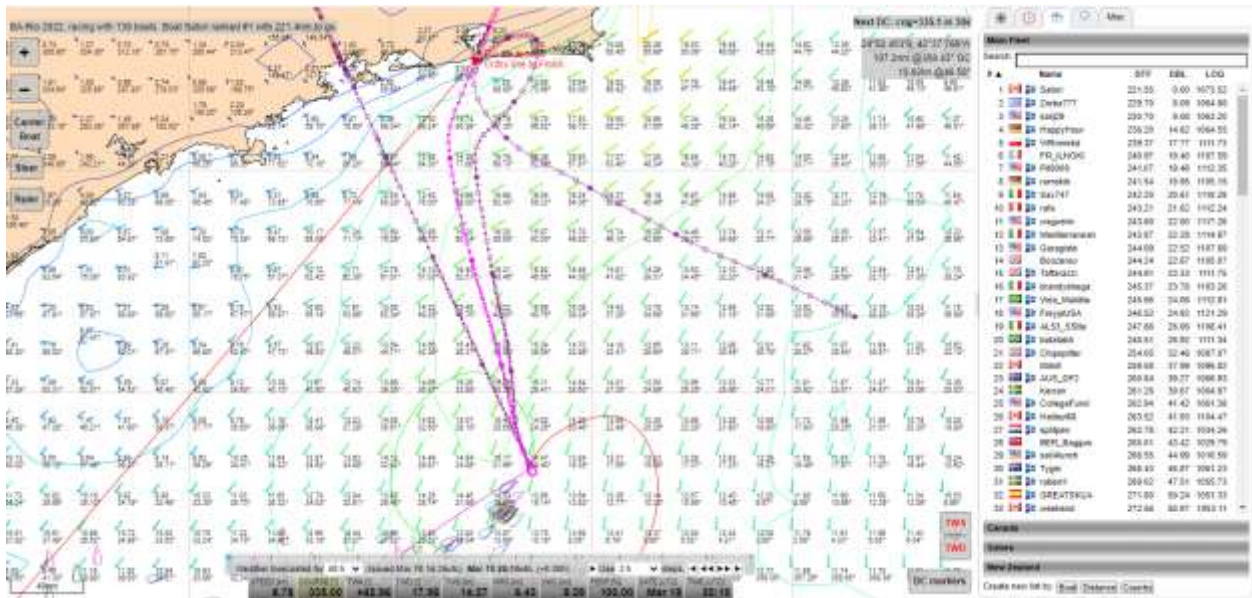


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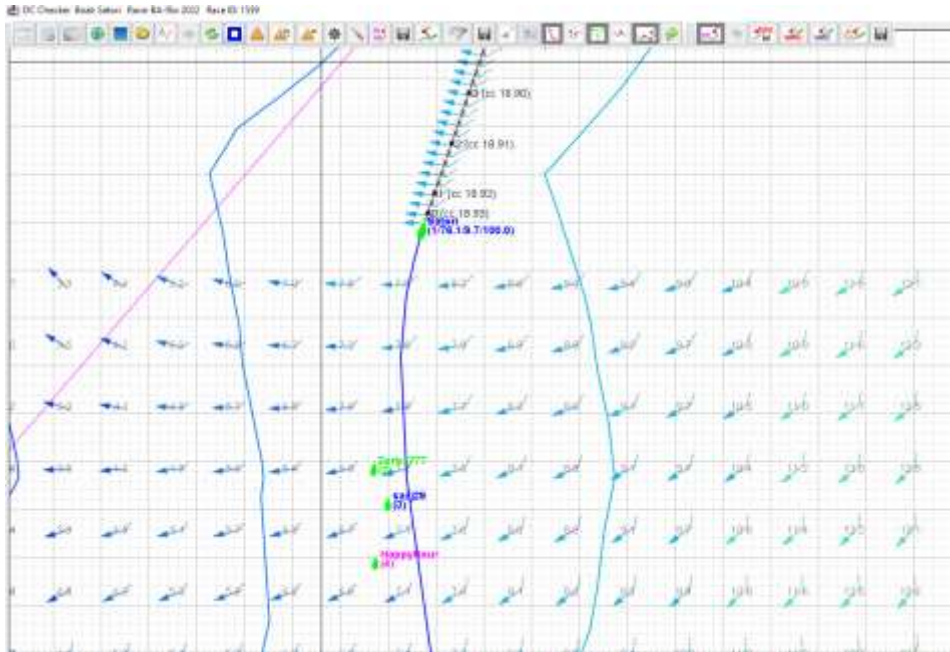
The finish for **Satori** was reasonably straight forward as the low winds moved west and **Satori** had good boat speed to finish. Those behind were not so lucky and got slowed down.



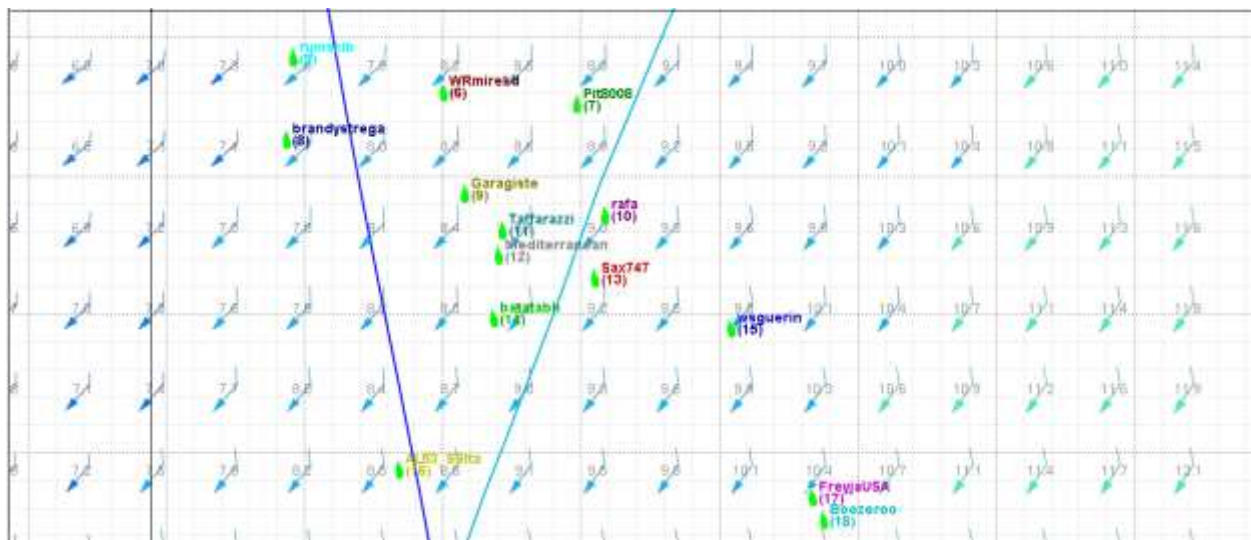
The tack to the Finish Line. Look at the weather there 180° TWA header. If I was **Zorba** and **sailj29** I might tack earlier and try to take advantage of the lift but the TWS is lower, actually a bit of a wind hole at their finish. Their DBL is increasing.



**Zorba** is 18.95 nms behind and **sailj29** 21:31 nms who sailed SOTP's, amazing! **HappyHour** who won the Cape Town to Rio 2022 Race, is 4th 25.87 nms behind.



**rumskib**, #4 in SYC Rankings, DBL 40.56 nms, and **WRmirekd**, #1 in SYC Rankings, DBL 41.16 nms are battling it out for 5th Place. **Pit8008** is only 0.07 nms behind **WRmirekd** and passes him before the Finish. So there is a good little competition going on between **rumskib**, **Mirek** and **Pit** to the Finish Line in the 8 to 10 hrs that remain for them. Boats to windward are going to run into a header before finishing but still have the ability to drop down to finish



## Satori's Report on Buenos Aires to Rio de Janeiro Race 2022

**Satori** finished Mar 19th 20:29:11 UTC. **Zorba** finished 2nd Mar 19th 23:55:00 UTC, 3h 25m 49s after **Satori**. **sailJ29** finished 3rd Mar 20th 01:25:26 UTC, 4h 56m 15s after **Satori**. Top Ten 7h 49m 21s after **Satori**.

### Leaderboard for BA-Rio 2022

BA-Rio 2022, racing with 143 boats.

Rankings: [SYC ranking](#) - [2022 SUPeRSOLer](#) - [2022 ARQ1](#) - [2022 ARCH](#)

[1-50](#) [51-100](#) [101-150](#)

Rank	Boat Name	Boat Type	DTG	DBL	Finish Time (UTC)
1	Satori	Santa Cruz 70	0	0	2022-03-19 20:29:11
2	Zorba777	Santa Cruz 70	0	0	2022-03-19 23:55:00
3	sailj29	Santa Cruz 70	0	0	2022-03-20 01:25:26
4	HappyHour	Santa Cruz 70	0	0	2022-03-20 02:24:56
5	Pit8008	Santa Cruz 70	0	0	2022-03-20 03:34:51
6	WRmirekd	Santa Cruz 70	0	0	2022-03-20 03:47:33
7	rafa	Santa Cruz 70	0	0	2022-03-20 03:59:13
8	rumskib	Santa Cruz 70	0	0	2022-03-20 04:01:00
9	Garagiste	Santa Cruz 70	0	0	2022-03-20 04:14:20
10	wsguerin	Santa Cruz 70	0	0	2022-03-20 04:18:32
11	Sax747	Santa Cruz 70	0	0	2022-03-20 04:19:42
12	Taffarazzi	Santa Cruz 70	0	0	2022-03-20 04:25:08
13	Mediterranean	Santa Cruz 70	0	0	2022-03-20 04:27:25
14	brandystrega	Santa Cruz 70	0	0	2022-03-20 04:47:41
15	batatabh	Santa Cruz 70	0	0	2022-03-20 04:53:06
16	FreyjaUSA	Santa Cruz 70	0	0	2022-03-20 05:09:45
17	Boozeroo	Santa Cruz 70	0	0	2022-03-20 05:39:13
18	AL53_SSIta	Santa Cruz 70	0	0	2022-03-20 06:20:35
19	Vida_Maldita	Santa Cruz 70	0	0	2022-03-20 06:33:09
20	Chipspitter	Santa Cruz 70	0	0	2022-03-20 09:54:41
21	splitpen	Santa Cruz 70	10.8	10.8	

How could I not think that this was a great race given **Satori's** finish?

I hope that I have not bored you and that there may be a few hints, suggestions that will help other beginners improve their finishes.

Regards to all of you SOLers who participated. I look forward to racing with you in future SOL races.

*There are good ships  
and wood ships,  
ships that sail the sea.  
But the best ships are friendships  
And may they always be  
(Anonymous Irish Toast)*

**John Gambles/Satori**

**jgambles@rogers.com**