

Rottnest swim route optimisation

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Rottnest Channel Currents (and waves)

myocean.mywire.org/UWA/

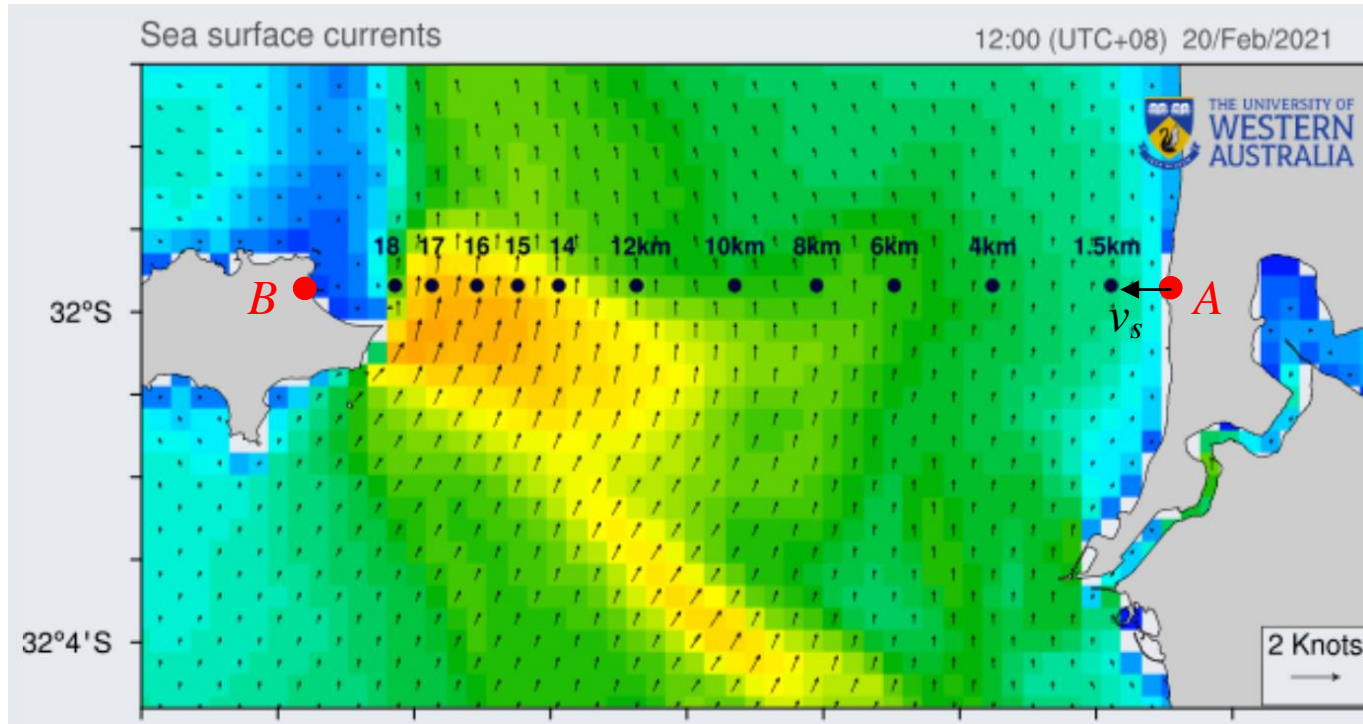
https://myocean.mywire.org/Waves/perth_HS_2023022508.png

https://myocean.mywire.org/Waves/perth_HS_movie.avi

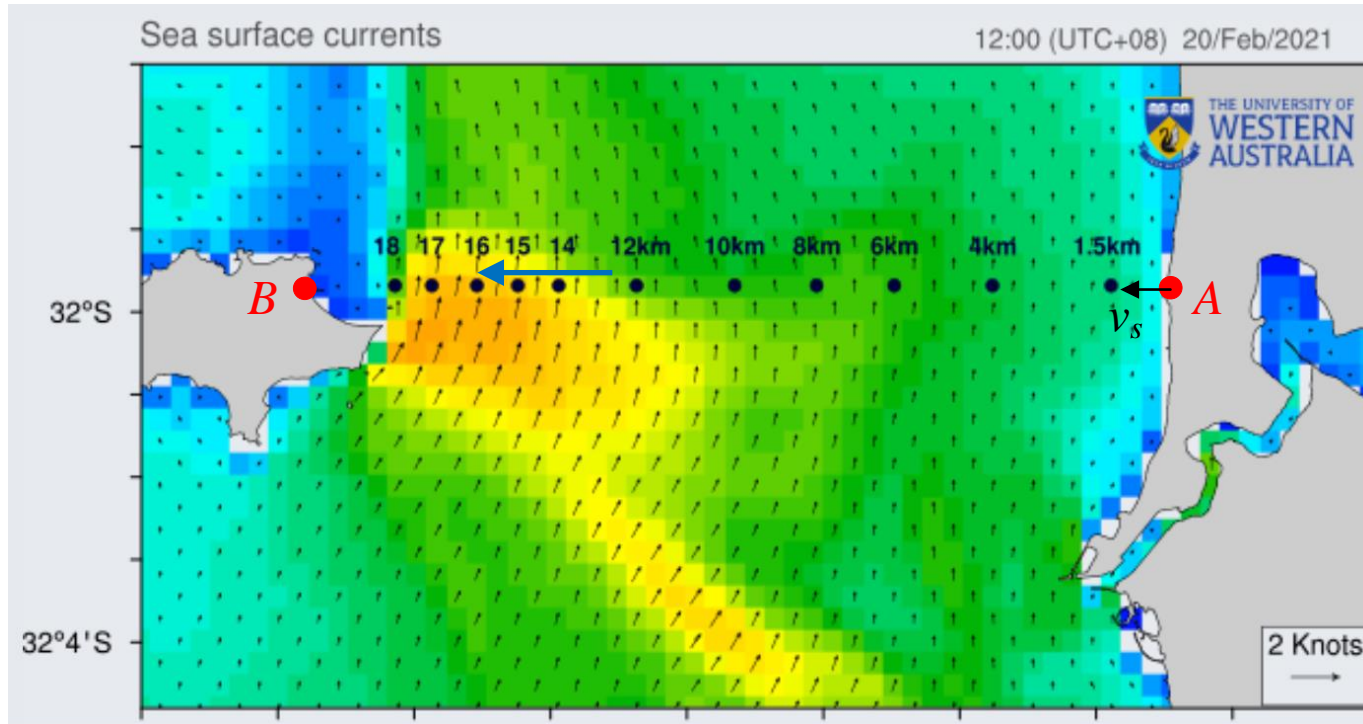
Rottnest swim: Route Optimisation

Why is the optimum route to Rottnest not straight forward?

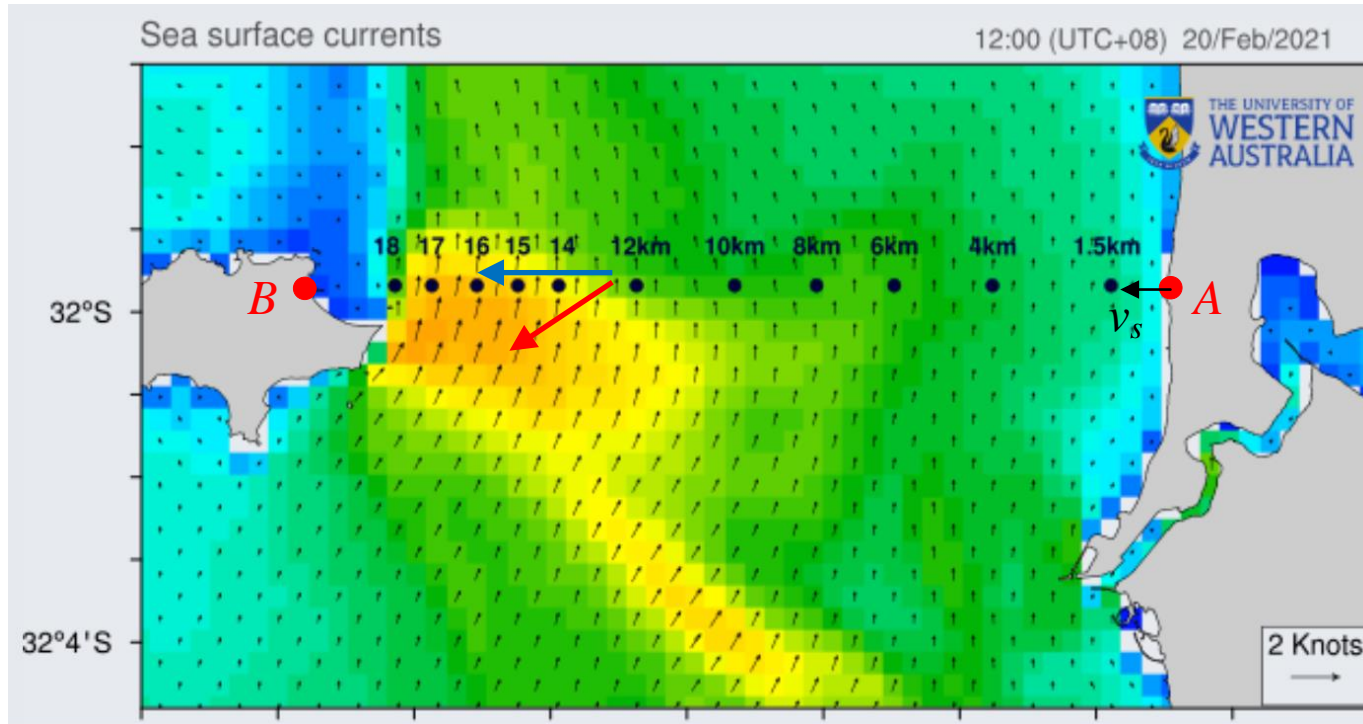
2021



2021

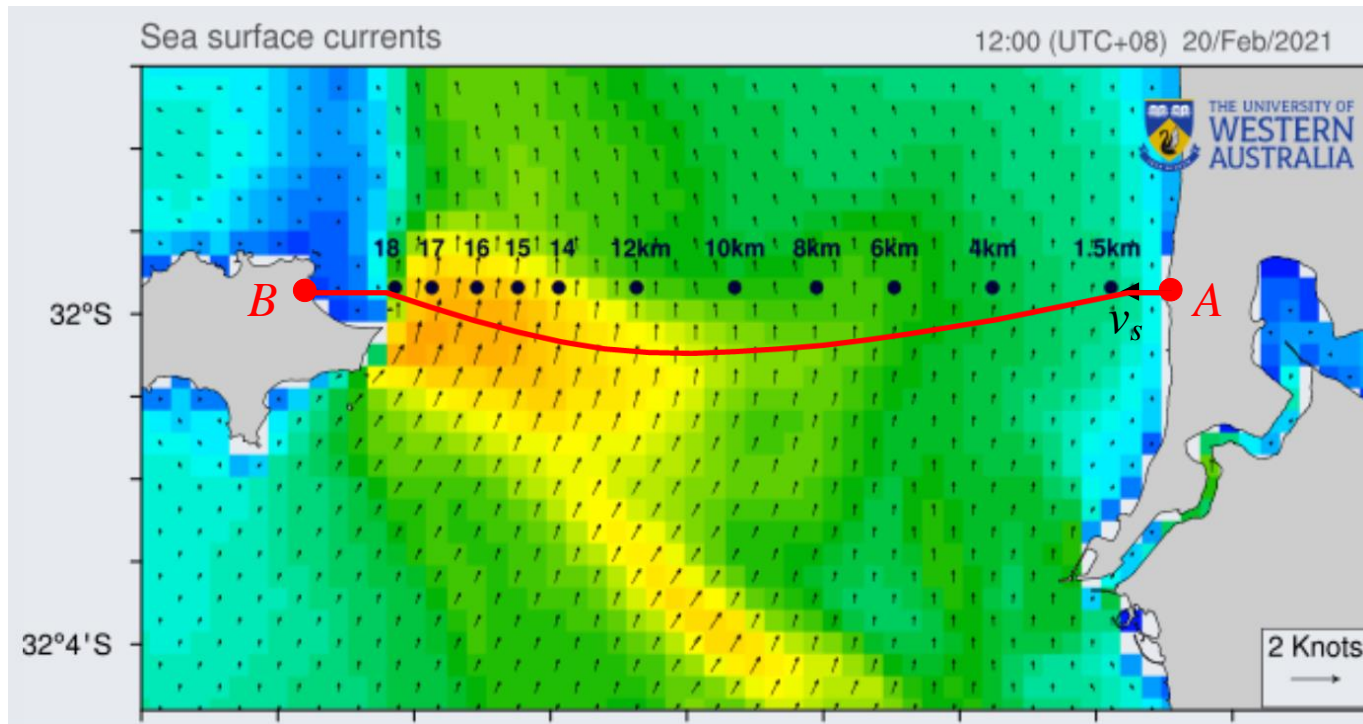


2021



Swimmer 1: 15 mins/km

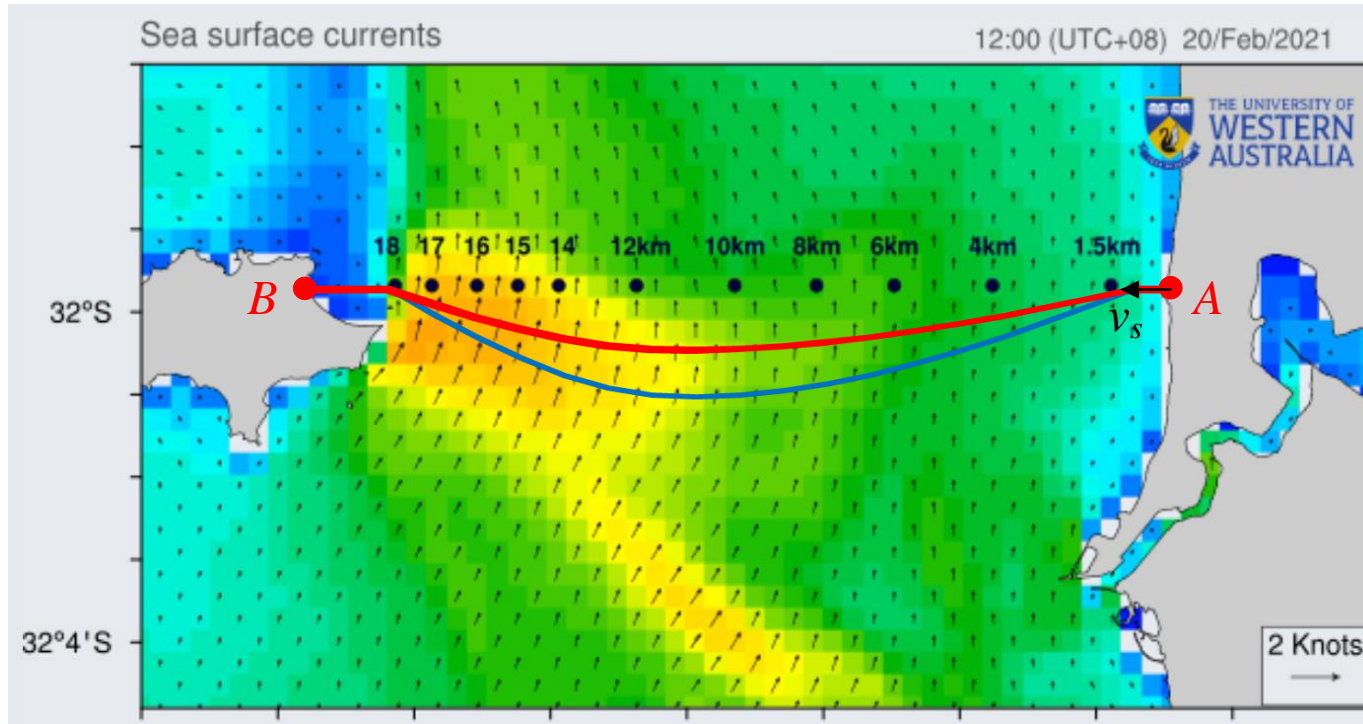
2021



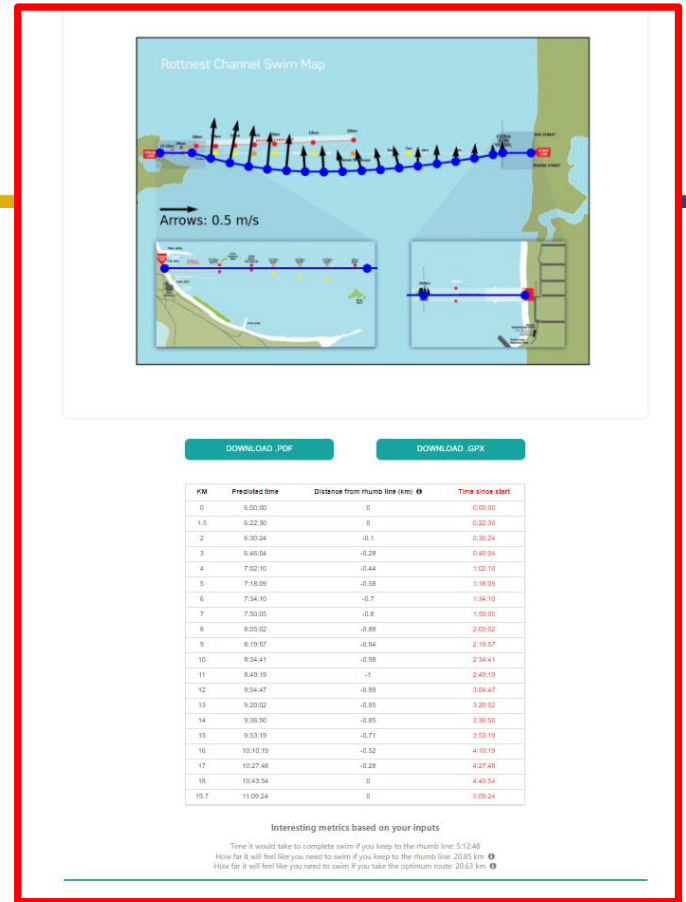
Time = 5 hrs 9 mins

Swimmer 1: 15 mins/km
 Swimmer 2: 23 mins/km

2021



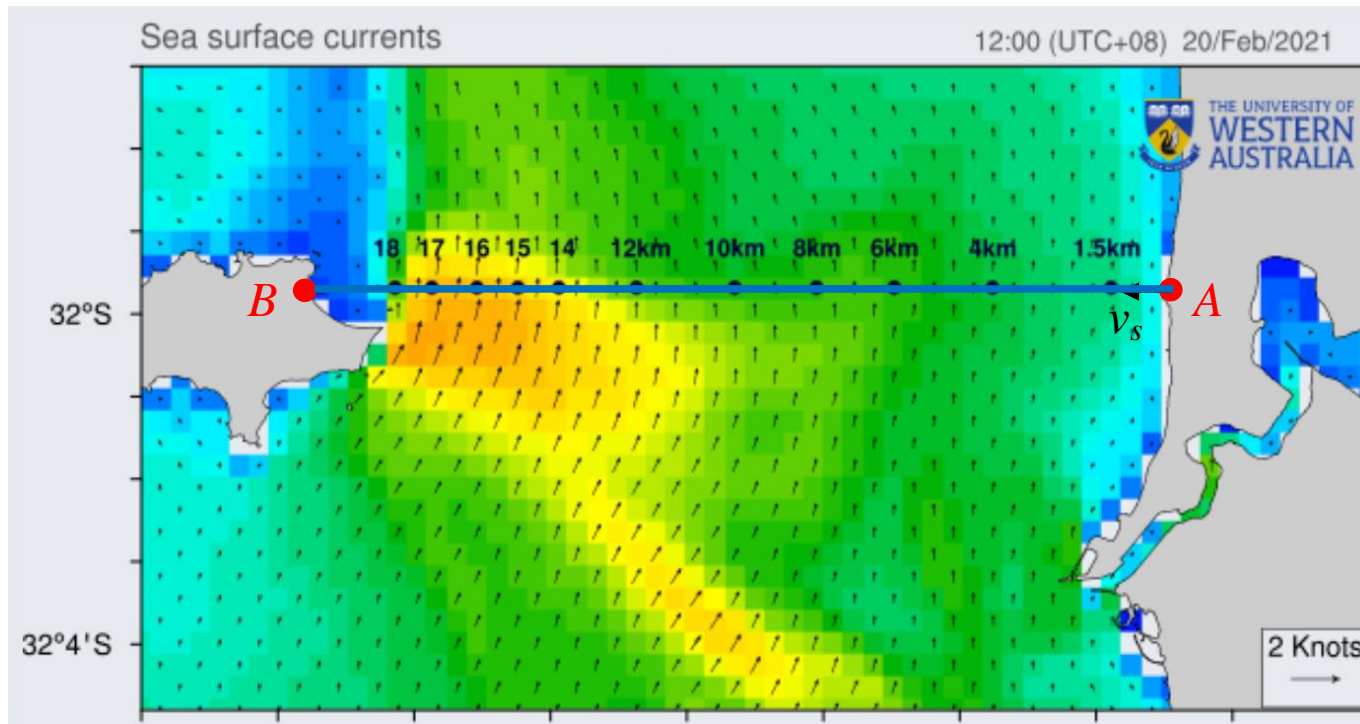
Time = 5 hrs 9 mins
 Time = 8 hrs 41 mins



2021

Swimmer 1: 15 mins/km

Swimmer 2: 23 mins/km



Time = 5 hrs 12 mins (3 minutes slower)

Time = 9 hrs 36 mins (55 minutes slower)

How do you find and use the Web Application?

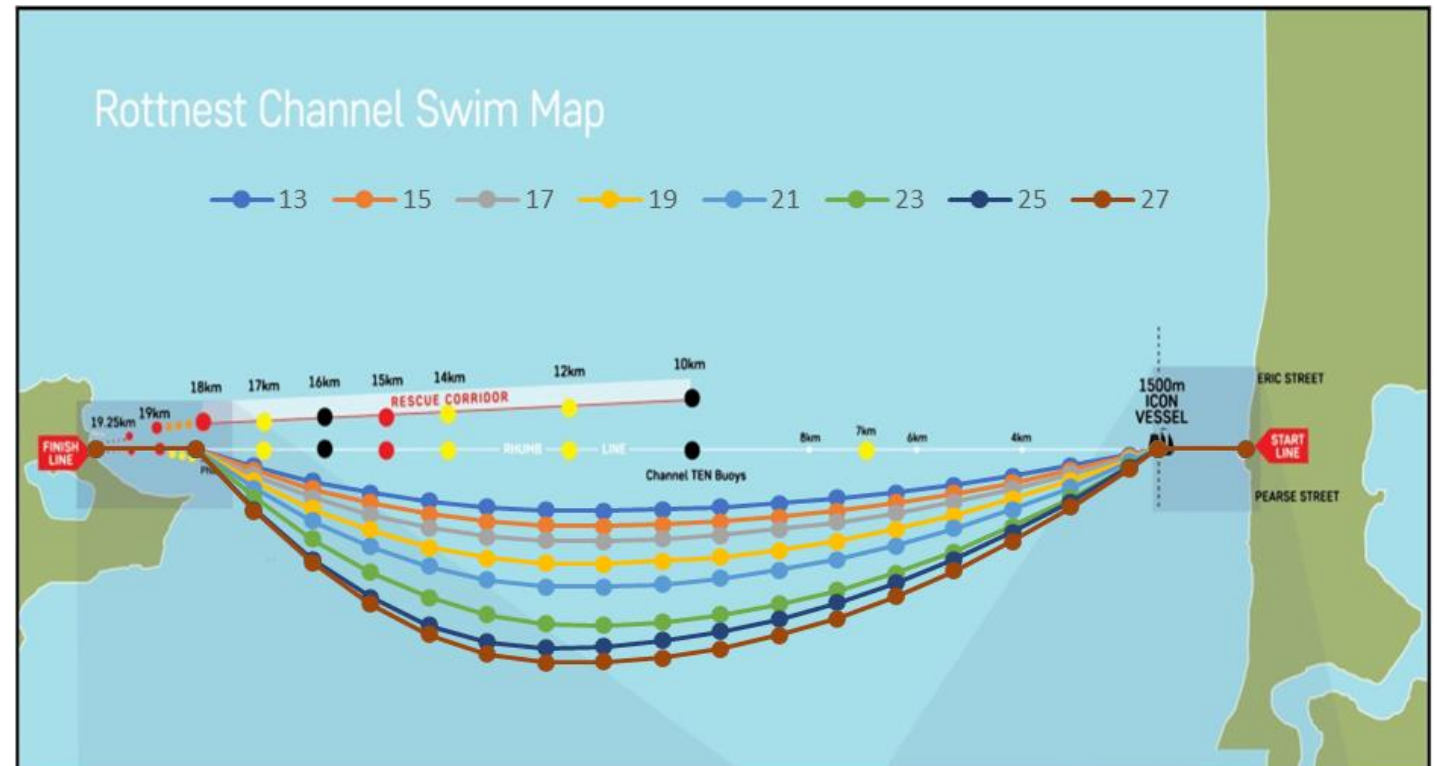
www.rcs.optiswim.com

Some interesting things you can explore with the Web Application...

Pace (How fast you swim)

How fast you swim affects the optimum route:

- The faster you go, the less effect the currents have
- Hence the less your optimised route needs to deviate

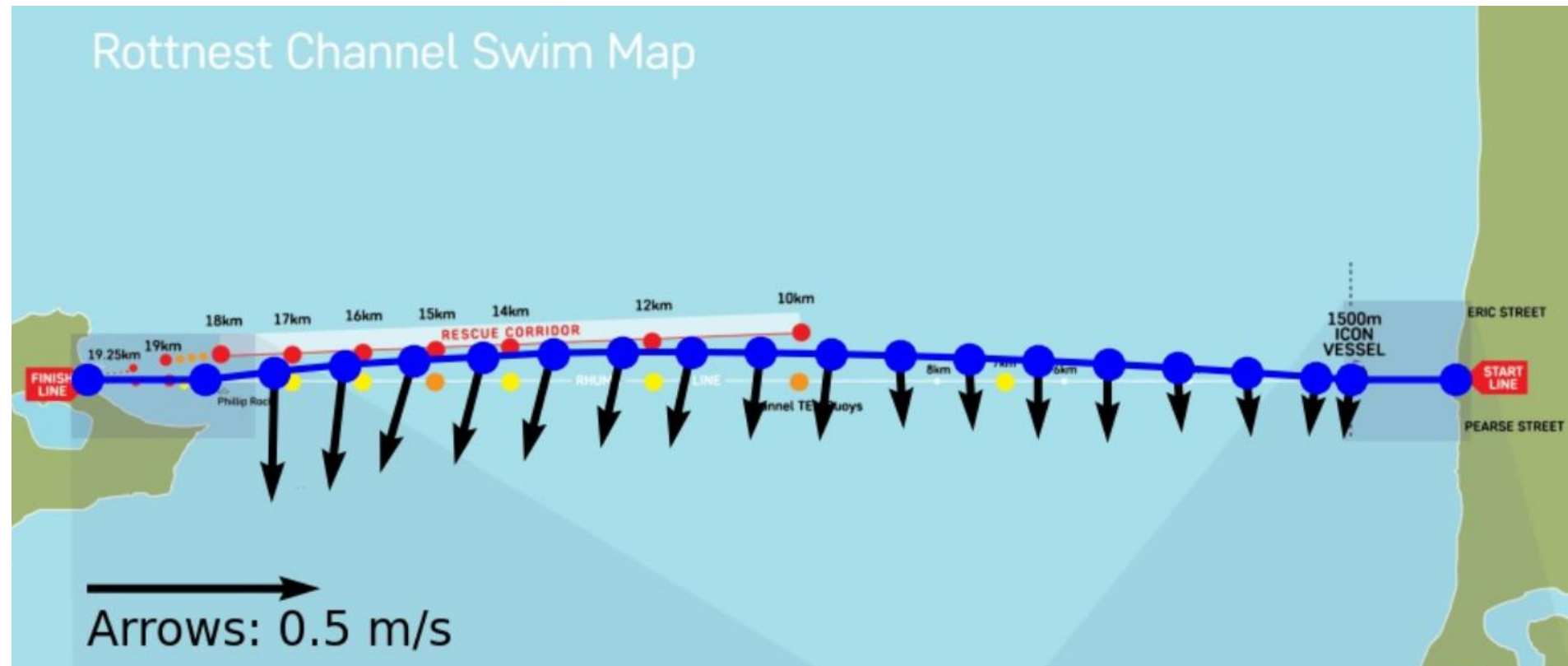


(13 to 27min/km, RCS2021)

Pace (How fast you swim)

Currents don't always come from the south:

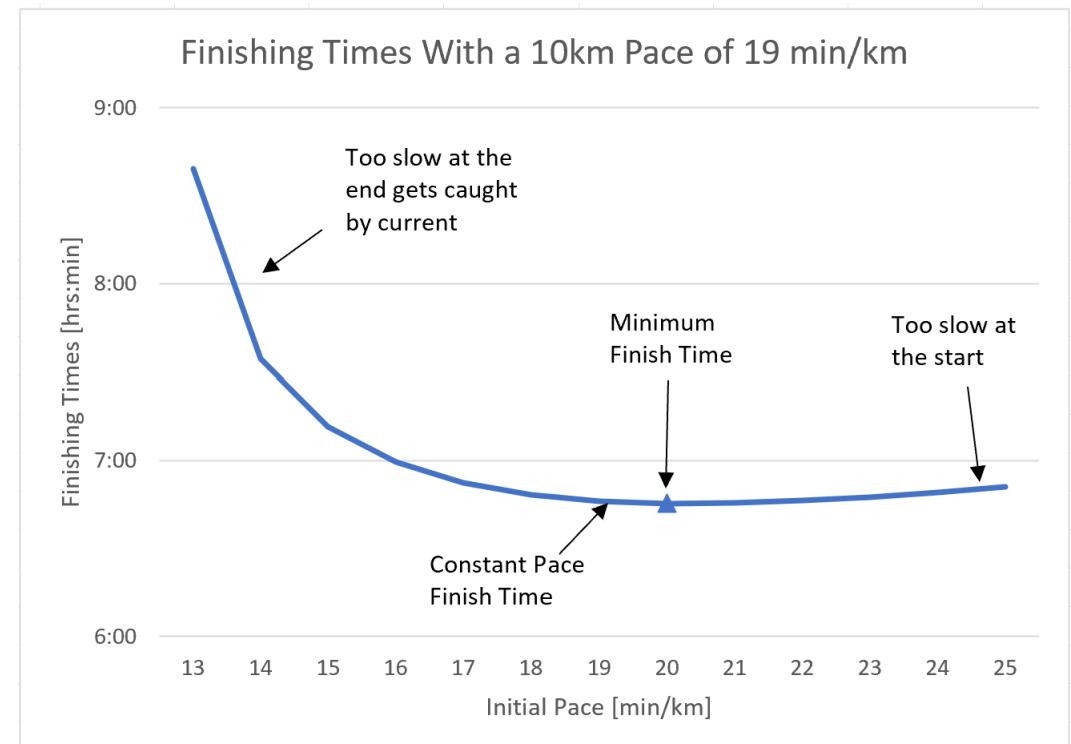
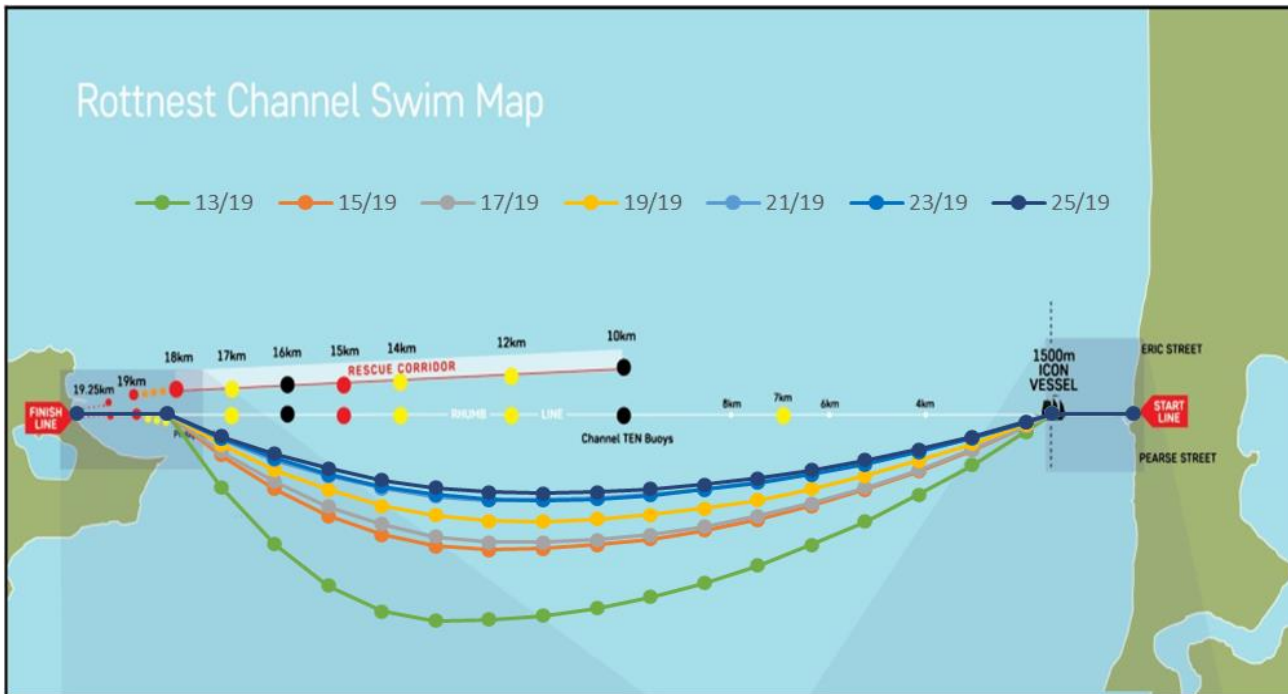
- E.g. RCS2017
- Stay out of rescue corridor!



Pacing strategy (Slowing down)

Aim to swim at a pace you can hold all the way:

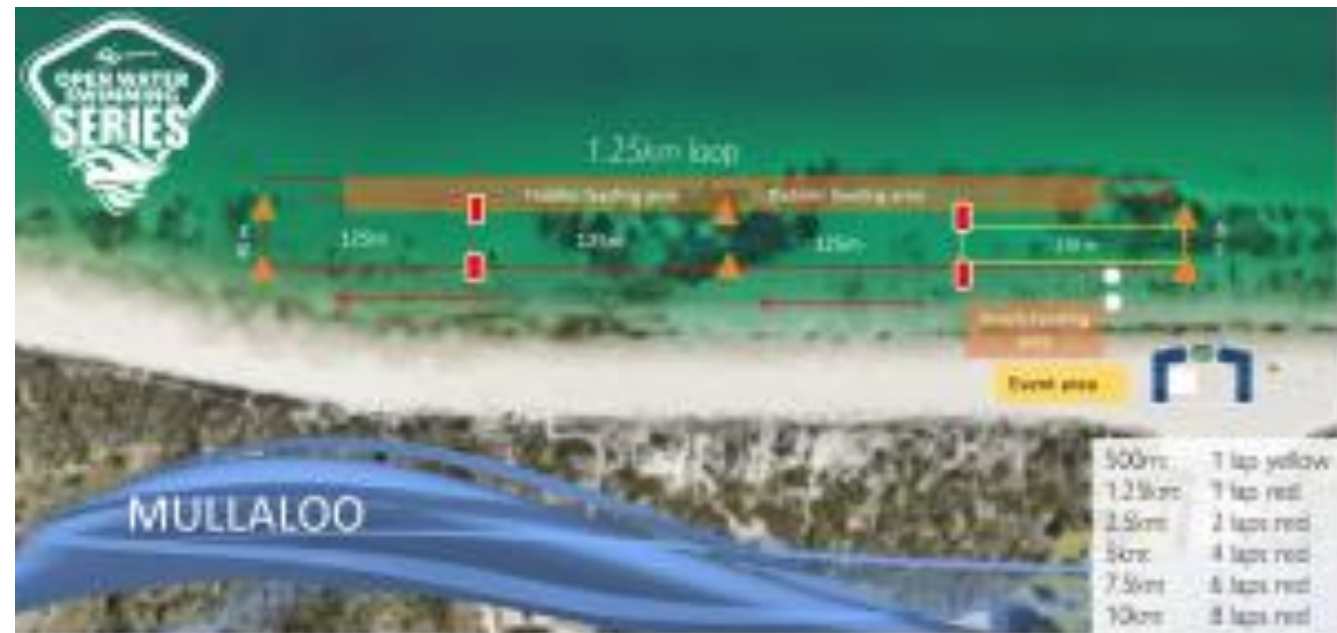
- If you slow down as you approach Phillip rock currents tend to be strongest near Rotto you will be affected much more



How fast can I swim?

Your swim pace should be based on: Swimming a distance of 19.7km

- Your 50m PB in a pool is faster than you can swim 20km
- For example, use your time from an OWS 10km event
- 1^{st} lap (mins) / 1.15km = starting pace (shorter 1^{st} leg)
- Last lap (mins) / 1.25km = finishing pace (less 7^{th} lap feed time)



How fast can I swim?

This isn't your first RCS swim:

- For example, use your time from RCS2021 event
- Then your elapsed time (mins) / 19.7km isn't right because it includes currents and 19.7km is the distance over ground, not through water
- Use the Route Optimisation Tool to estimate your pace (Rhumb line)

Feed stops in currents

Aim to keep feed stops as short as practicable:

- If you stop to feed, the current just pushes you
- Currents tend to be strongest near Rotto when you're most tired!

≈3min RCS2021 feed stop near Rotto

