



Weather

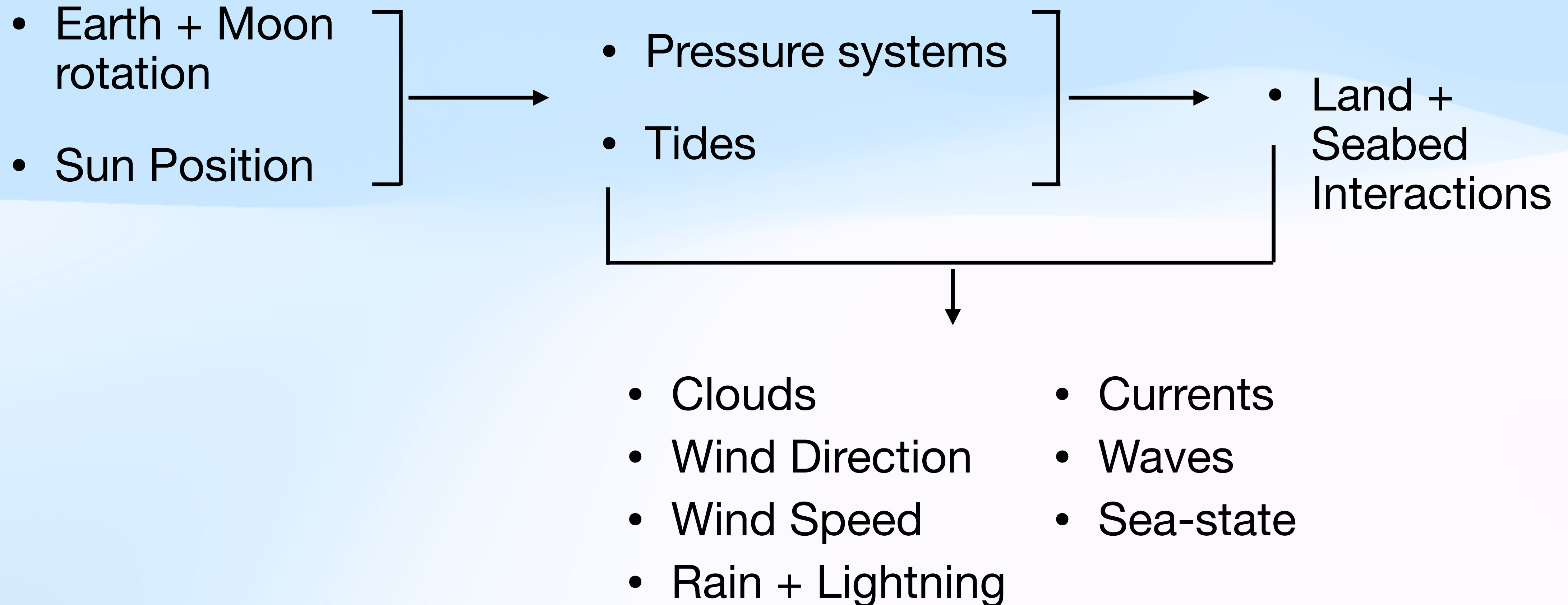
RBYC SMART Class

Josh Stuchbery // 3rd June 2026

What 'weather' do we need to consider?

Weather Components

Forces at play



How do we prepare?

Preparation Cheatsheet

Develop your own systems to make things easier + faster

- Pressure systems present → Where will wind move over time
- Forecast Wind Direction → Expected True Wind Angles + Land
- Forecast Wind Speed → Degree of force + movement expected
- Forecasted Tides + Current → Speed, depth, VMC angles, waves
- Expected Wave + Sea-state → Speed, VMC angles, trim
- Expected Clouds + Impacts → Land/Sea breeze, micro-climates
- Expected Land Impacts → Land/Sea breeze, Turbulence, Bending

Preparation Cheatsheet

One approach

Date	7th Aug				
Time	1000	1100	1200	1300	1400
Pressure Systems	Developing low system off Brisbane driving winds -135H @ -15kt. Consistent				
Current + Tide	0952 HT, Transition S to N (1.56M)	N. Floeet sucking flow in. High flow	1200: Peak flow (1kt) +30% at points	Strong	Dying. Rotate Clockwise
Current + Pressure Combo	20 degree diff from S				
Waves + Sea-state	10 degree diff from S				
Prevailing Wind Direction	120-140M		130-150M		
Prevailing Wind Speed	12-15kt		13-18kt		
Clouds / Lightning / Rain	20	30	20	30	20
Temperature	21	22	22	22	22
Land Topography	Light wind shadow NW of islands + landmass				
Land Breeze	SB build		5-10kt SB		10-15kt SB
Cloud impacts	-20% reduction in potential				
Atmospheric stability	Reasonable stability		Check clouds for instability		
Wind strength impacts	A bit too strong. More of a gradient day				
Wind direction impacts	SB impacts likely blown up the coast				
Vorticity impacts	Likely to shift CCW				
Level of land friction	Moderate. Trees				
Coriolis impact	Likely to shift CCW				

Preparation Playbook

Also consider team communication + coordination

Triggers	Environment	Strategy	Tasks
			<ul style="list-style-type: none"> Must fly turtle flag Must fly lockstay flag 2m from deck Review weather data for any 24hr impacts Stem/jib up, VHF 72, Sail number + PCB Proceed to Start Line? Stay within exclusion zone Synt watches to start sequence
New weather forecasts in		Report to Start Boat (Line 2)	
Warning gun			
Start gun	40-60 TWD, Speed 12-20kt, Minimal (0.05kt) current against.	Likely pin-end bias	
OCB Check			Monitor VHF 72
		Spout shows good water around Sow + Pig Reef. Over Sow + Pig Reef less tide (negligible)	Proceed to Mark?
	Within 200-300m North Head + wind shadow	Southern Half of Heads better wind	Proceed to Mark?
Over 18kt apparent reaching spinneret max range	Wind Building 15-20 > 24-33kt. Seining 050 > 000 TWD. Up our butts - giting required. Possible Lightning - 1.5kt current available running S.	Maintain wind angle ~155. Gybing/Granny tacking required. A3/4 still 18kt apparent wh's then jib. Inshore for better for current (0.2kt). Inshore less wind. 2x people on main. Someone ready to dump Vang. Helm to wind as opposed to trim to course.	Greg to decide on limits for Spinneret vs. AB vs Furled Jib
500 vs. 31W	1.5kt current available	Try to find on instruments and use to guide optimal gybe points. If heard use to validate different current models to better inform current decisions	Monitor 500 vs 31W + HDQ vs COG + Fleet
Sunset	CVE Sunset	Conservative settings to balance darkness + expected gust strengths	New lights on. Discuss midnight settings
Wind dying, TRD stable then decreasing exponentially till front	Wind dying 24-33 > 16-25kt. Stable @ 000-020 TWD up our butts. Lightning possible	Prepare to beat in heavy wind. Ideally be running on Port - curve. Take new wind on Starboard.	

Where do we get data?

Data Sources

Wind

	Predict Wind	Windy	BoM
Pressure System	<u>Maps > Isobars</u>	<u>Pressure</u>	<u>MSP</u>
Wind Speed + Direction	<u>Maps > Wind</u>	<u>Wind</u>	<u>MetEye</u>
Tides + Currents	<u>Maps > Currents</u>	<u>Currents, Tidal</u>	<u>Tide Predictions</u>
Sea Temperature	<u>Maps > Sea Temps</u>	<u>Sea Temperature</u>	<u>Sea Temps + Currents</u>
Clouds	<u>Maps > Clouds</u>	<u>Low, Medium, High, Base</u>	<u>SatView</u>
Lightning	<u>Maps > Cape + Lightning Toggle</u>	<u>Cape Index</u>	
Warnings	GMDSS Layer		<u>Marine Lite, Radio, VicEmergency</u>

Brighton

Some modules are disabled, check for updates

Forecasts

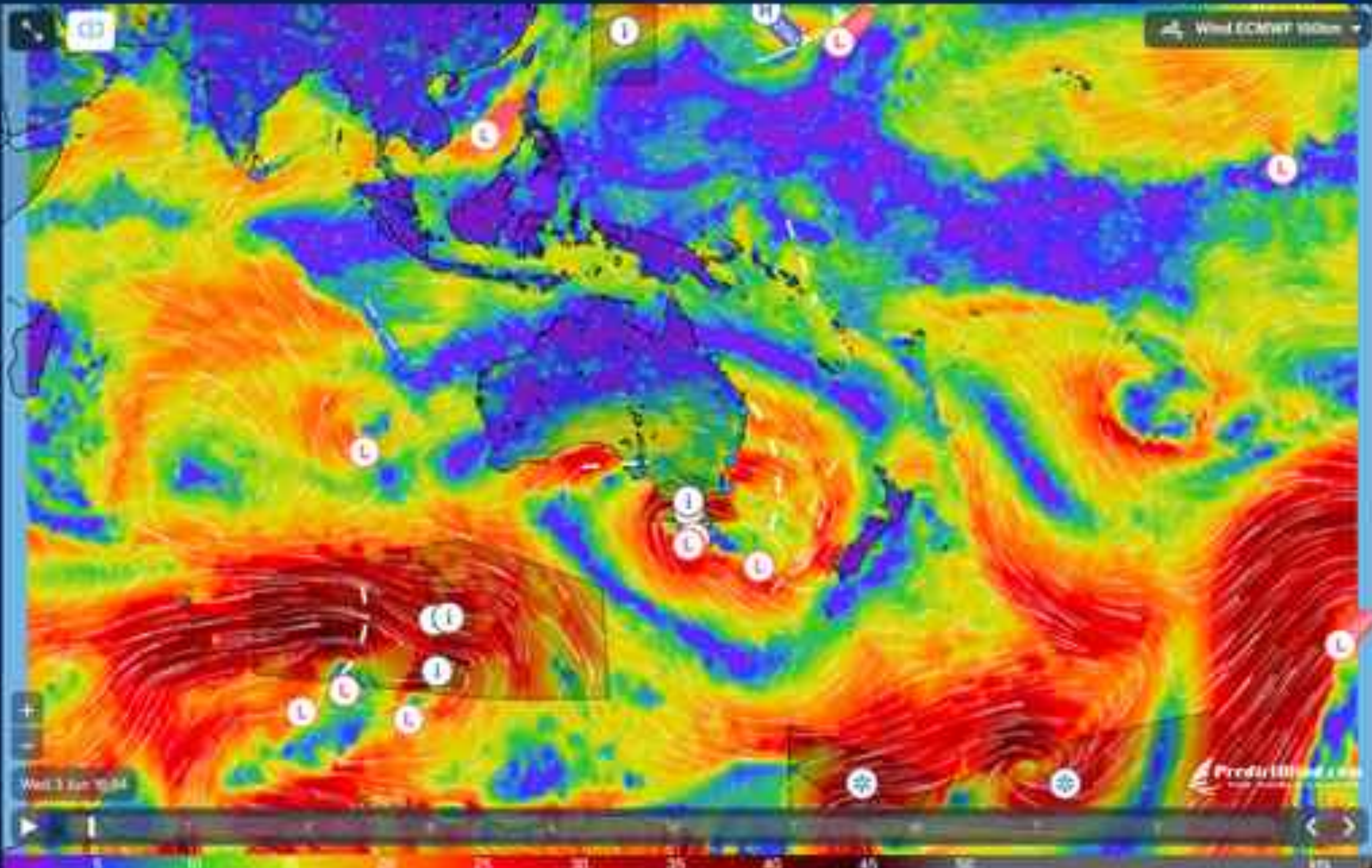
- Daily Briefing
- Forecast Tables
- Forecast Graphs

Maps

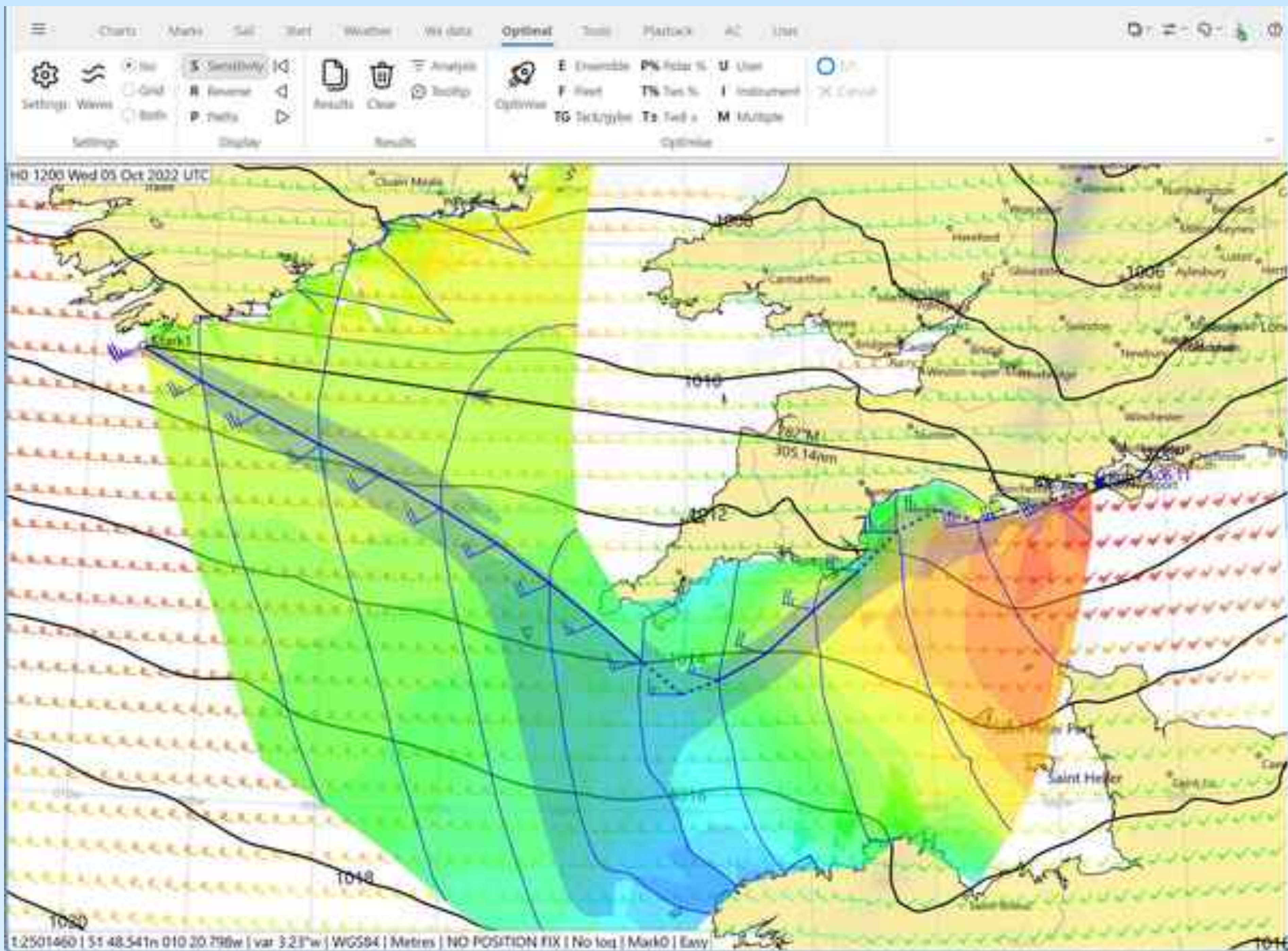
- AI-Run
- GMSS
- Validation
- Locator
- Forecast Replay

Observations

- Local Knowledge
- Weather Routing
- Departure Planning



Wed 3 Jun 2024



Coasts and oceans

Find Australian tides and marine weather information for coastal and local waters, lakes, seas and oceans

Forecasts

Observations

Map

National and international

Tide predictions



Sea temperatures and currents



Marine wind forecast maps – ACCESS model



Ocean temperature – long-range forecasts



Interactive weather and wave forecast maps



Marine heatwave – long-range forecasts



High seas forecasts



New South Wales

Sydney enclosed waters forecast



Lord Howe Island forecast



Name	Provider	Region	Offshore Opt.	Collection	Updates	Timezone Adjusted
Coastal Water Forecast	BoM	Sydney	Y	Marine Weather Services (LNet) - Sydney Coastal Waters Forecast		
Coastal Water Forecast	BoM	NSW South	Y	Marine Weather Services (LNet) - NSW Southern Coastal Waters Forecast		
Coastal Water Forecast	BoM	Bass Strait	Y	Marine Weather Services (LNet) - Bass Strait Forecast		
Coastal Water Forecast	BoM	TAS East	Y	Marine Weather Services (LNet) - TAS Eastern Coastal Waters Forecast		
Coastal Water Forecast	BoM	TAS South	Y	Marine Weather Services (LNet) - TAS Southern Coastal Waters Forecast		
Coastal Water Forecast	BoM	Hobart	Y	Marine Weather Services (LNet) - Hobart Local Waters Forecast		
Sea Temperature + Currents	BoM	NSW	N	Sea-Track-Village		
Sea Temperature + Currents	BoM	VIC / TAS	N	Victoria and Tasmania		
High Seas Forecast	BoM	SE Area	Y	Marine Weather Services (LNet) - South Eastern Forecast		
High Seas Forecast	BoM	SE Area	Y	Inmarsat C + Inalum	1100z, 2300z	2000, 1900
High Seas Forecast	BoM	Bass Strait	Y	Inmarsat C + Inalum	0715z, 1930z	1815, 0630
Coastal Water Forecast (0700-1800 EST)	BoM	NSWVIC	Y	HF 4426, 8176, 12365, 16548	2330z, 0330z	1030, 1430
Coastal Water Forecast (1800-0700 EST)	BoM	NSWVIC	Y	HF 2201, 6507, 8176, 12365	0730z, 1130z, 1530z, 1930z	1830, 2230, 0230, 0630
Coastal Water Forecast (0700-1800 EST)	BoM	TAS	Y	HF 4426, 8176, 12365, 16548	0030z, 0430z, 2030z	0730, 1130, 1530
Coastal Water Forecast (1800-0700 EST)	BoM	TAS	Y	HF 2201, 6507, 8176, 12365	0830z, 1230z, 1630z	1830, 2330, 0330
Coastal Warnings (0700-1800 EST)	BoM	Australia	Y	HF 4426, 8176, 12365, 16548		0700, 0800, 0900, 1000, 1100, 1200
Coastal Warnings (1800-0700 EST)	BoM	Australia	Y	HF 2201, 6507, 8176, 12365		1800, 1900, 2000, 2100, 2200, 2300
Scheduled Weather Alerts	Marine Rescue Sydney	Sydney	Y	VHF 18		0640, 1840
Scheduled Weather Alerts	Marine Rescue Eden	Eden	Y	VHF 67		0710, 1820
Scheduled Weather Alerts	Marine Radio Victoria	Bass Strait	Y	VHF 67		0648, 1848
Scheduled Weather Alerts	Tas Maritime Radio	S Coastal Waters	Y	VHF 67, 68, 69, HF 2524, 4146, 6227		0745, 1345, 1730
Scheduled Weather Alerts	Tas Maritime Radio	SE Coastal Waters	Y	VHF 01		On the hour + every half hour
Scheduled Weather Alerts	Marine Rescue Eden	Bass Strait DE Flgs	Y	HF 2524		0820, 1810
Scheduled Weather Alerts	Marine Rescue Eden	Vic + NSW Coastal Waters	Y	VHF 81		0710, 0900, 1240, 1710, 2100
SeaView	BoM	Australia	N	BoM Website	Every 10min	

Marine Weather Services (lite)

Please [refresh page](#) for latest warnings

WARNINGS

OCEAN WIND WARNINGS

- [Ocean Wind Warning 2 - Metarea 10](#)
- [Ocean Wind Warning 5 - Metarea 10](#)
- [Ocean Wind Warning 8 - Metarea 10](#)
- [Ocean Wind Warning 11 - Metarea 10](#)
- [Ocean Wind Warning 12 - Metarea 10](#)

QLD WARNINGS

- [Marine Wind Warning Summary for Queensland](#)

NSW WARNINGS

- [Marine Wind Warning Summary for New South Wales](#)

VIC WARNINGS

- [Marine Wind Warning Summary for Victoria](#)
- [Coastal Hazard Warning for parts of Central East Gippsland, West and South Gippsland and South West Forecast Districts](#)

TAS WARNINGS

- [Marine Wind Warning Summary for](#)

FORECASTS

High Seas forecast

[North Eastern](#)

[South Eastern](#)

[Western](#)

[Northern](#)

[Southern](#)

Bass Strait forecast

[Bass Strait and Approaches](#)

Cape Otway to Sandy Cape and St Helens to Gabo Island

QLD forecast

[Gulf Waters Coastal Waters Zones](#)

QLD/NT border to Crab Island

[North Queensland Coastal Waters Zones](#)

Torres Strait to St Lawrence

[South Queensland Coastal Waters Zones](#)

St Lawrence to Point Danger

[Great Barrier Reef Offshore Waters](#)

Bowen to Yeppoon

CHARTS

[Australia MSLP Analysis](#)

[Pacific Ocean MSLP Analysis](#)

[Indian Ocean MSLP Analysis](#)

[All wind and wave charts for 7 days](#)

SA forecast

[All Coastal Waters Zones](#)

WA/SA border to SA/VIC border

[Adelaide Metropolitan Waters](#)

Sellicks Beach to St Kilda

WA forecast

[Northern Coastal Waters Zones](#)

NT/WA border to North West Cape

[Western Coastal Waters Zones](#)

North West Cape to Cape Naturaliste

[Southern Coastal Waters Zones](#)

Cape Naturaliste to WA/SA border

Data Sources

Land

- Hiking Apps (ie. Gaia, All Trails)
- 3D Apps (ie. Apple Maps)



Upgrade to get access to the best data. [Upgrade](#)

Search



Scale

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Search

Places

Roads

Saved Places

Borders

Routes

Visited Places

Recently Added

Layers

Districts of Hawthorn
(all formed by members)

Wharfedale Aquatic Bay
(created by Hawthorn)

Middle Wharfedale Marine
Region

Unknown Locations

Data Sources

Observations

- Wind Apps (ie. PredictWind, Windy)
- Direct Observation Data (ie. BayWX Fawkner)

Brighton

Forecasts

Observations

Wind Observations

Rain Radar

Hybrid Salt Ingotery

Lightning

Local Knowledge

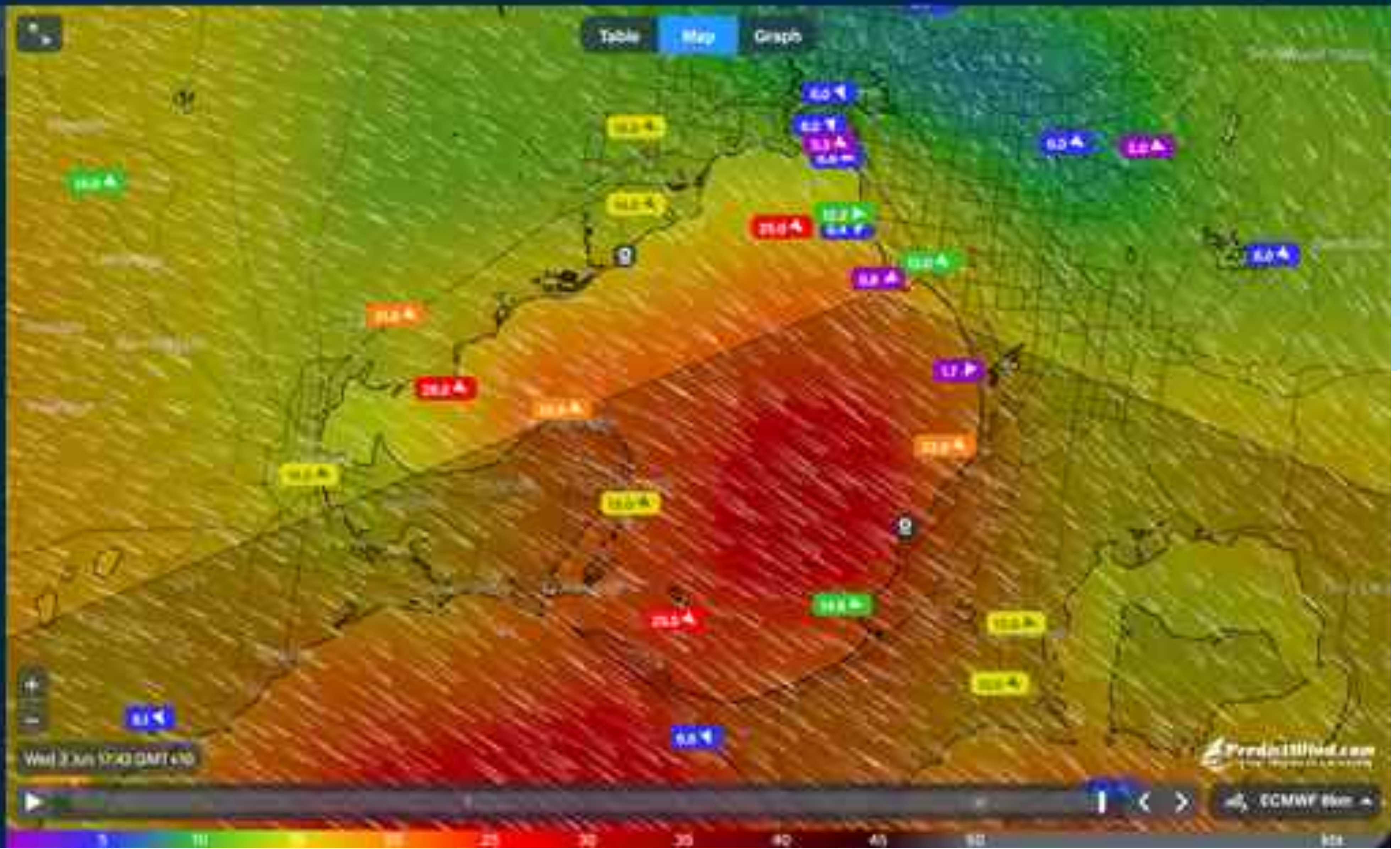
Weather Routing

Departure Planning

Tools

Help

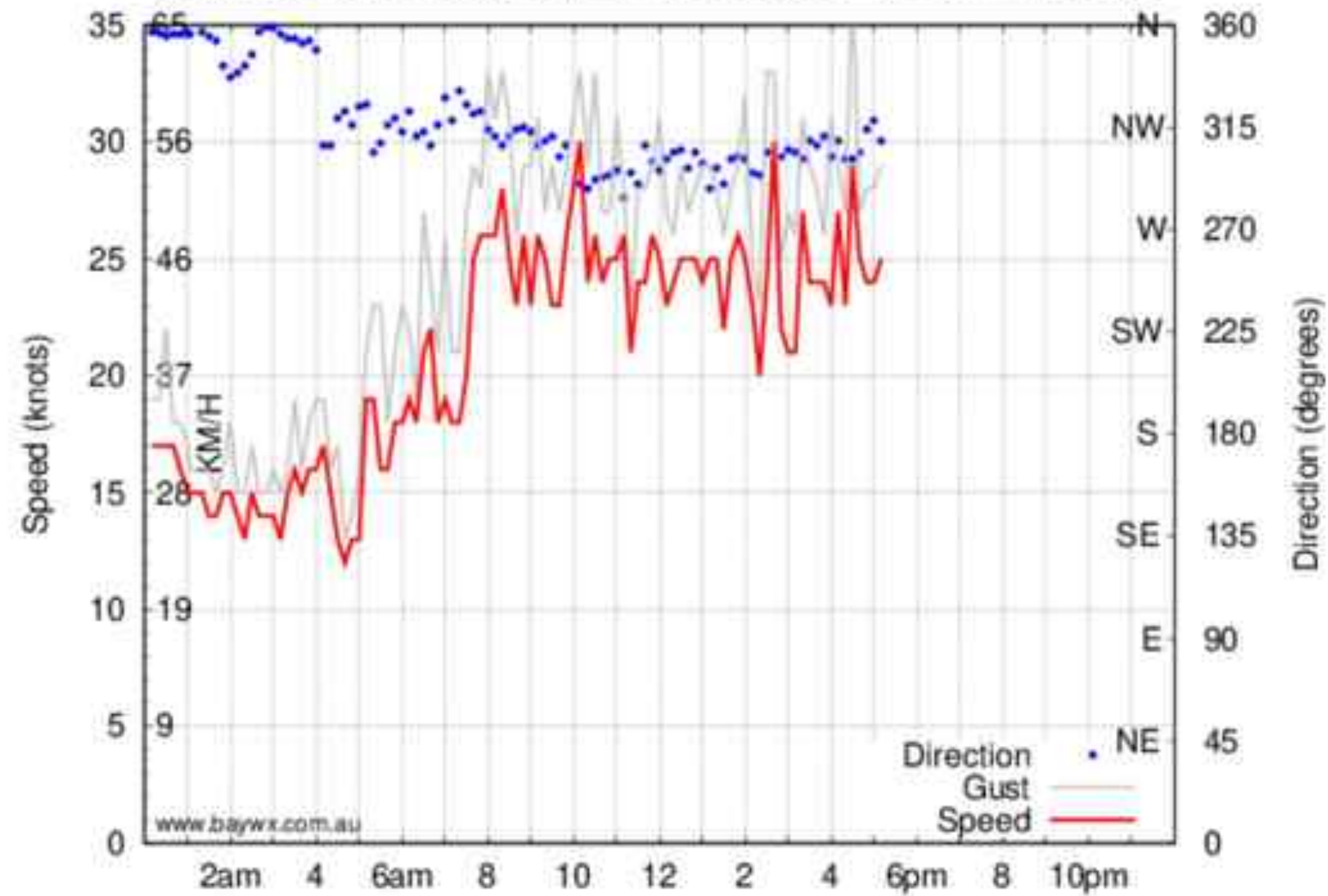
Table Map Graph



Fawkner Beacon

[Bay Winds](#)[Ocean Obs.](#)[Melbourne](#)[Temps Tide Sun](#)[Forecasts](#)[Data Sources](#)

Fawkner Beacon Wind Speed/Direction for Wednesday Jun 3



Latest Observation: 25 knots NW at 17:10

Feeling Generous? Buy me a [Coffee!](#)

[Wind Graph Archives](#) | [Yesterday's Wind Graph](#) | [Weeks Wind Graph RYCV Cam](#) | [Black Rock Y.C Obs](#) | [Albert Park Y.A.C Cam](#) | [Elwood Cam](#) | [Brighton Y.C Cam](#) | [Zu Cam](#) | [St Kilda Cam](#) | [Sandy Y.C Cam](#) | [SYC Obs](#) | [RYCV graph](#) | [Beacon Photo](#)



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Disclaimer: Whilst all care is taken, users are advised to check the original source of all data before use. This page was originally hosted by the The University of Melbourne School of Earth Sciences. It uses publicly available weather data from the Bureau of Meteorology. Whilst all care is taken, users are advised to check the original source of all data before use.

Analysing the Data

Weather Models

Wind

- GFS
- ECWMF
- ACCESS
- PWE
- PWG

Weather Models

Wind

Model	Resolution
PWG	1km, 8km, 50km, 100km
PWE	1km, 8km, 50km, 100km
ECMWF	8km, 50km, 100km
GFS	11km (Exp), 25km, 50km, 100km
SPIRE	12km, 50km, 100km
UKMO	15km, 50km, 100km
ICON	10km
UM-Global	10km
EC	25km
GDPS	15km
Arpege	25km
Mercator	8km
ASCAT	10km
ACCESS	1.3km, 12km
RTOFS	9km

Weather Models

Currents

- Mercator
- RTOFS
- PredictWind

Pulling it together - The Briefing

Key Interplays

Real-world example

- Pressure System Movements
- Wind + Current
- Land + Sea Temps

Pre-Race Briefings

Real-world example

General Weather Notes

Wind Speed: 9-15kt + light patches of 1-4kts W of island.

Wind Direction:

- Prevailing direction ESE shifting to E by ~1pm
- Landmasses playing strong role today = read the micro-climates

Currents: generally negligible today

- 11am Changing from ebbing S to flooding N. Rotating counter-clockwise to flow W in the transition.
- 3pm peak flow N @ 0.8kt

Course Notes

(s) Beat - START > TURNING MARK: @ ~10kt TWS

(s) Reach - TURNING MARK > ORCHARD ROCK: TWA ~85 shifting to ~150 TWA as you get further north. TWS ~10kts

(p) Broad Reach - ORCHARD ROCK > BAY ROCK: TWA ~150-170. TWS from ~10kt to ~15kt after the second half of the leg

(p) >Reach - BAY ROCK > MIDDLE REEF WEST BEACON > MIDDLE REEF LAID MARK:

TWA ~80-115 for the first half of the leg. TWA ~50-70 for the second half of the leg. As wind wraps around the island. TWS dropping to ~8kt as you move through the lee of the island.

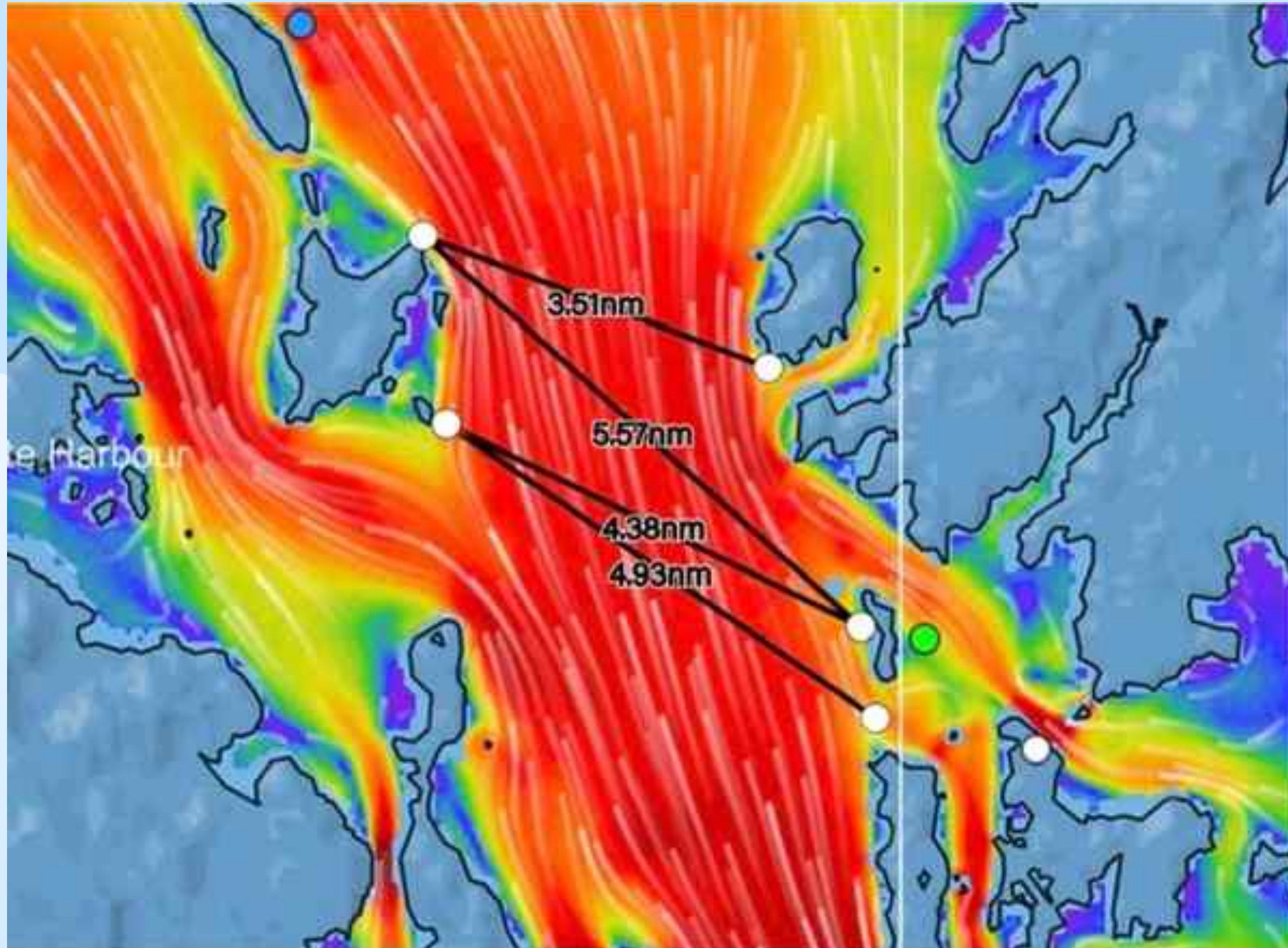
(p) >Beat - MIDDLE REEF LAID MARK > MIDDLE REEF EAST BEACON:

TWA tightening to a beat. TWS @ 13kt.

(s) Beat - MIDDLE REEF EAST BEACON > FINISH: @ 13kts, dropping to ~10kt as getting closer to shore

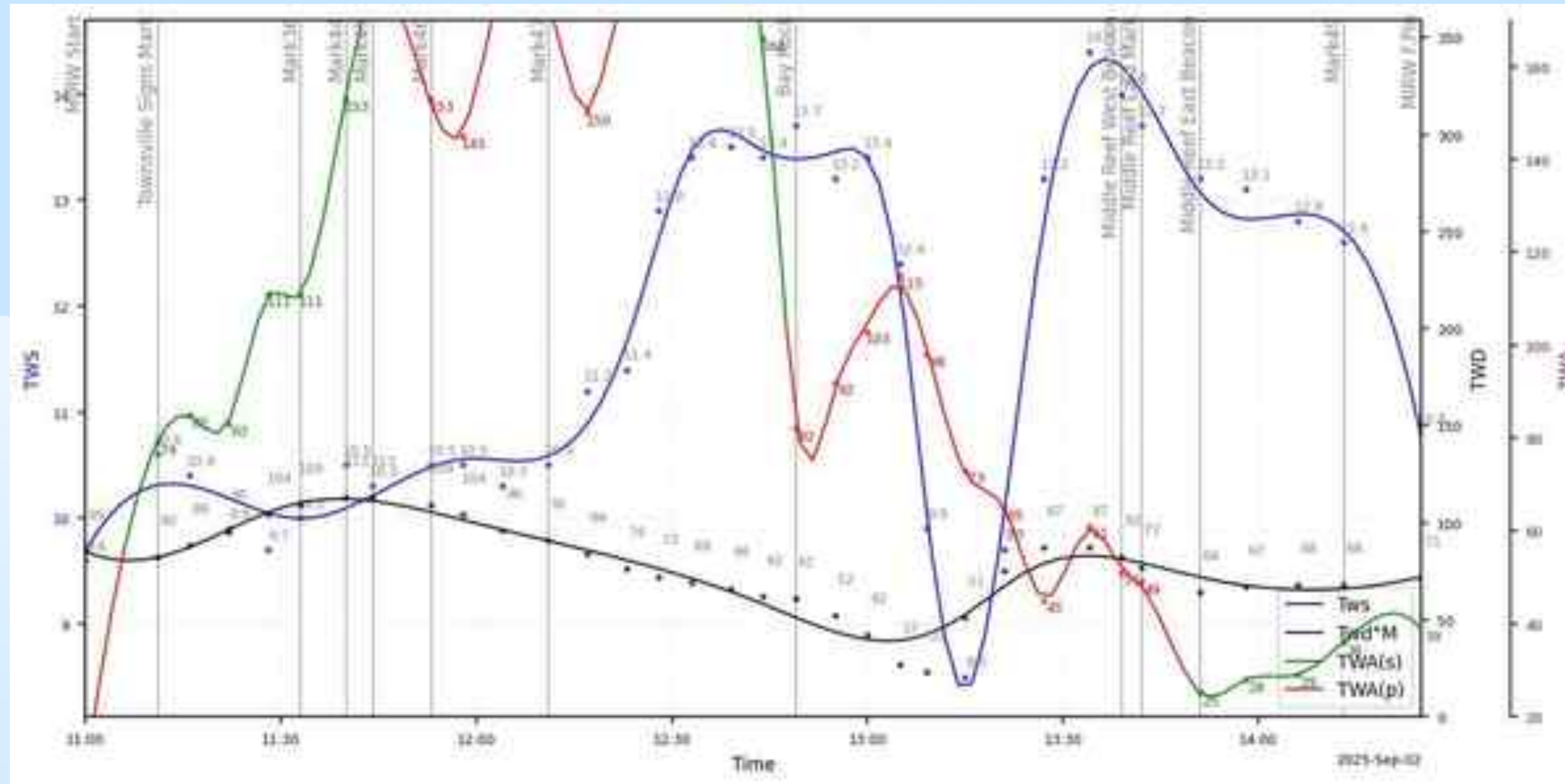
Pre-Race Briefings

Real-world example



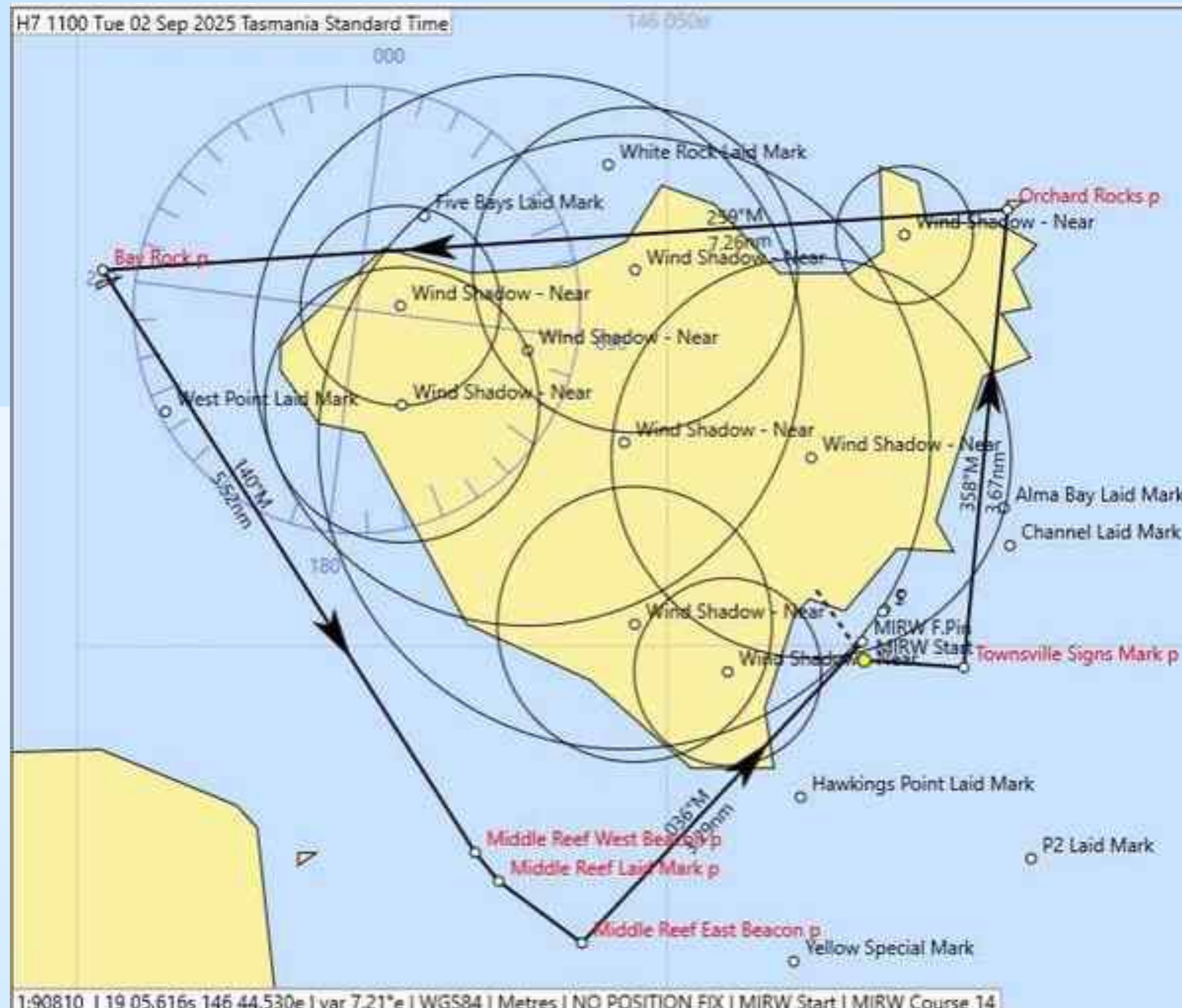
Pre-Race Briefings

Real-world example



Pre-Race Briefings

Real-world example



Route

From	To	R	Bear	Range
Boat	MIRW Start	M	138°	0.68
MIRW Start	Townsville Signs Mark	P	087°	0.80
Townsville Signs Mark	Orchard Rocks	P	358°	3.67
Orchard Rocks	Bay Rock	P	259°	7.26
Bay Rock	Middle Reef West Beacon	P	140°	5.52
Middle Reef West Beacon	Middle Reef Laid Mark	P	133°	0.30
Middle Reef Laid Mark	Middle Reef East Beacon	P	119°	0.83
Middle Reef East Beacon	MIRW F.Pin	M	036°	3.29
Total				22.35nm



Weather

RBYC SMART Class

Josh Stuchbery // 3rd June 2026