




LAUNCESTON TO HOBART YACHT RACE 2020






Weather Outlook

Prepared by Kenn Batt,
Meteorologist

The 5 Vital Weather Safety Checks

BUREAU OF METEOROLOGY 

Going boating? Do the **five vital weather safety checks**

- 1**  **Marine warnings**
- 2**  **Changing weather**
- 3**  **Wind conditions**
- 4**  **Wave conditions**
- 5**  **Tide times**

More info: www.bom.gov.au/marine

**YOU'RE THE SKIPPER
YOU'RE RESPONSIBLE!**

Marine Winds

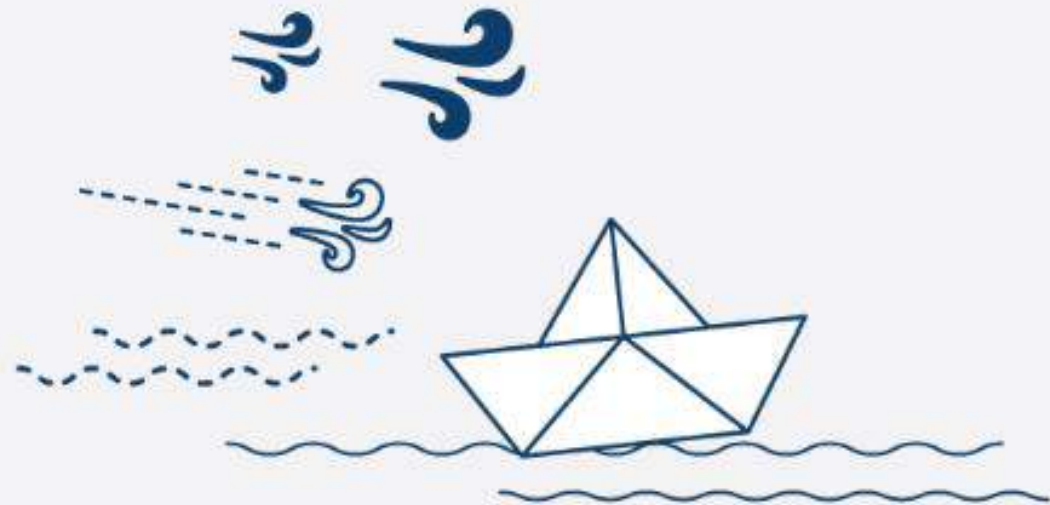
BUREAU OF METEOROLOGY

MARINE WINDS

**FORECAST
WIND SPEEDS**

ARE AN AVERAGE

OF GUSTS AND LULLS



www.bom.gov.au/marine



Wind Gusts

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MARINE WINDS

WIND GUSTS CAN BE

40% STRONGER

THAN THE FORECAST AVERAGE WIND SPEED

... AND STRONGER STILL IN STORMS AND SQUALLS

www.bom.gov.au/marine



Wave Height

Wave height

It is normal for waves to vary in height from one to the next. To give you an idea of the range of waves to expect at a given time, the Bureau provides the **significant wave height** in its marine forecasts.

Most frequent waves	Significant waves	Maximum waves
The most frequent wave height will be about half the height of the significant wave	About 14% of waves will be higher than the significant wave height (about 1 in every 7 waves)	It is normal to expect a wave of twice the height of the significant wave about 3 times in 24 hours.
		<i>This means you need to be prepared for a wave of this height before heading out on the water.</i>

www.bom.gov.au

Wind Warnings

Strong wind warning	Winds averaging from 26 knots and up to 33 knots.
Gale warning	Winds averaging from 34 knots and up to 47 knots.
Storm force wind warning	Winds averaging from 48 knots and up to 63 knots.
Hurricane force wind warning	Winds averaging 64 knots or more.

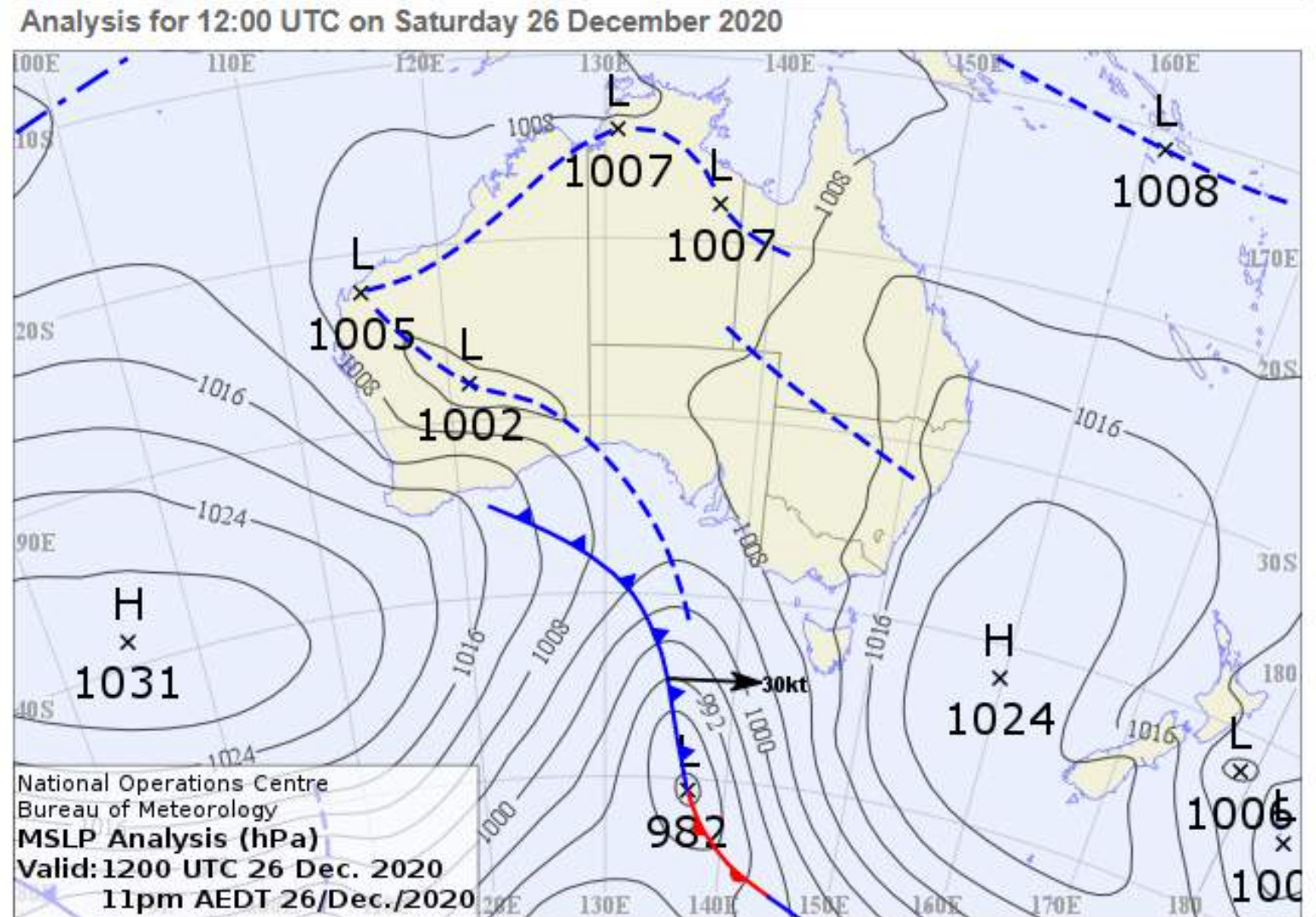
<http://www.bom.gov.au/marine/knowledge-centre/hazards.shtml>

Helpful articles on some aspects of weather

- <https://www.ryct.org.au/weather/>
- Especially Tricky Tassie Coast <https://www.ryct.org.au/wp-content/uploads/2018/09/25-Tricky-Tassie-Coast-Kenn-Batt-Alasdair-Hainsworth.pdf>
- Winds on the Derwent <https://www.ryct.org.au/wp-content/uploads/2018/09/26-Winds-on-the-Derwent-Kenn-Batt-Alasdair-Hainsworth.pdf>
- Cold Fronts <https://www.ryct.org.au/wp-content/uploads/2018/09/03-Cold-fronts-Kenn-Batt.pdf>

Latest Surface Analysis

A broad high pressure area in the central Tasman Sea. A cold front lies to the west.

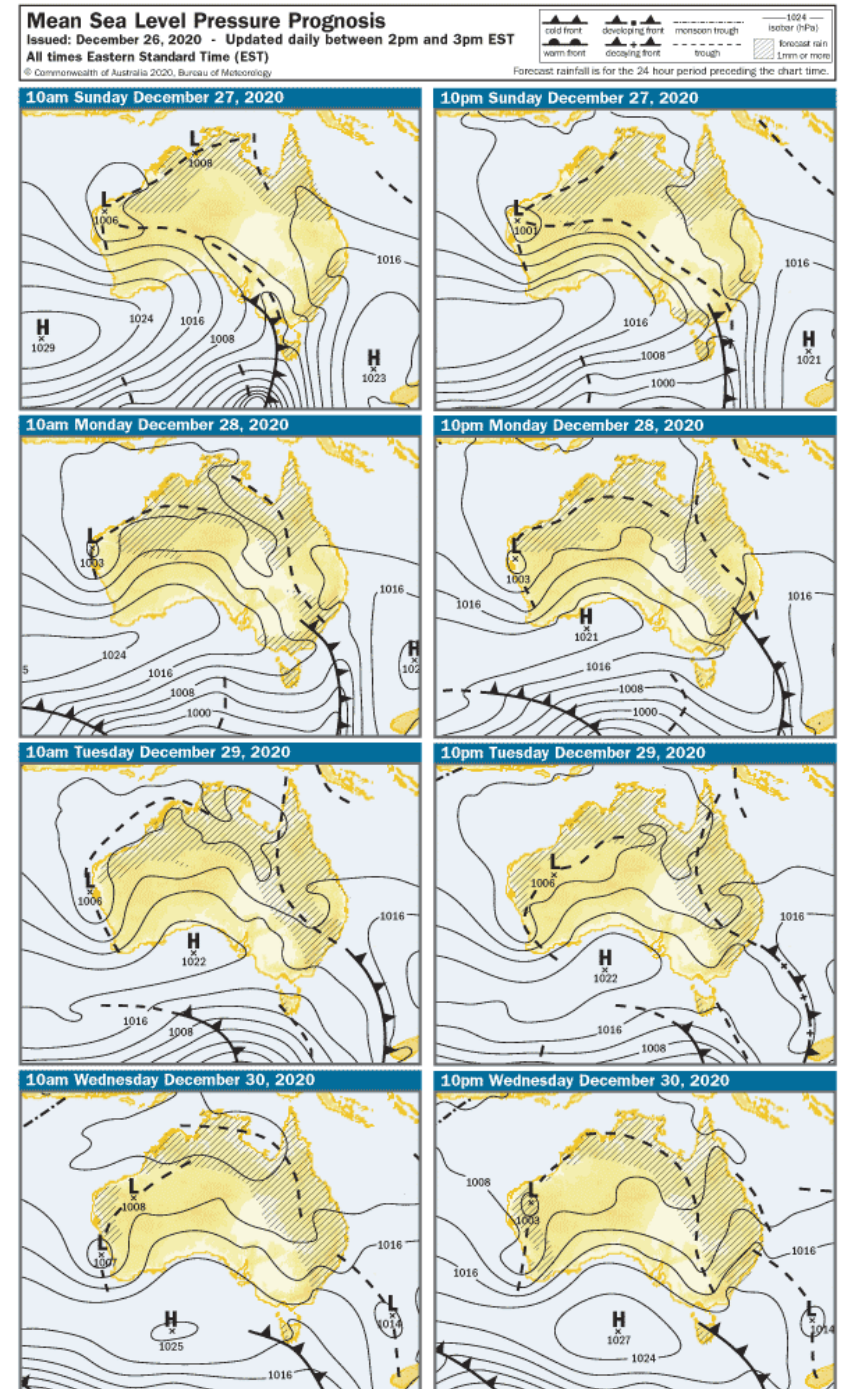


4 Day Isobaric Forecast Charts

A vigorous cold front will cross the Tasmania during today.

A westerly stream with embedded troughs will develop over Tasmania for Monday and Tuesday as a high pressure system slowly develops over the Bight.

On Wednesday, a trough of low pressure over Victoria will extend south towards Tasmania as another cold front crosses the state from the southwest during the morning. This will be followed by a ridge of high pressure.



Relevant Warnings Current at time of issue

- **Wind Warnings for Sunday 27 December**
- **Gale Warning** for the following areas:
Upper East Coast and Lower East Coast
- **Strong Wind Warning** for the following areas:
Central North Coast, Banks Strait and Franklin Sound, East of Flinders Island
- **Wind Warnings for Monday 28 December**
- **Strong Wind Warning** for the following areas:
Central North Coast, Banks Strait and Franklin Sound, East of Flinders Island, Upper East Coast, Lower East Coast and South East Coast

Check regularly for updates

Pre-amble

- The various computer models have been in good agreement over the last 2 to 3 days. Timings and intensities have been the usual variants.
- **The cold front pushing through today is significant**, especially in the Banks Strait to Eddystone Point area. This is due to funnelling of the westerly flow through the Strait.
- Fine tuning the arrival of this front (or any front) should be done using visual observations and actual observations from coastal automatic weather stations.
- The 0000UTC on 26th Dec ECMWF model run has been used in this presentation (too early for the latest 1200UTC run)

Weather Forecast

Sunday 27 December (Beauty Point to Eddystone Point) Strong wind warning current

Cold front expected to move quickly through Bass Strait today. Expected at Low Head area 1830hr and Flinders Island 2130hr (timing +/- 2.0hr)

Winds: North to northeasterly at 15-25 knots (average), though lighter and more variable at times in the Tamar. Becoming north to northwesterly at 15-25 knots (average) during the late afternoon/evening ahead of a cold front. Winds turning west to southwesterly at 20-30 knots (average) behind the front. **Wind in Banks Strait and adjacent areas becoming W-SW at 25-35 knots (average) and very gusty in the late evening and persisting into early Monday morning before easing to 10-15 knots (average) by 0800hr Monday.**

Seas: 1.0 to 2.5 metres (Hsig) reaching up to 3.5m (Hsig) in Banks Strait and adjacent areas.

Swell: East to northeasterly around 1 metre (Hsig), tending confused or from the south around 1 metre (Hsig) in the far east.

Weather: Cloudy with rain areas or showers. Chance of a thunderstorm (Note that winds can be squally and erratic over short time intervals with showers and thunderstorms.)

Monday 28 December (Eddystone Pt to Wineglass Bay)

South to southwesterly surge up the east coast on Monday. Expected at Eddystone Pt at 0100-0200hr

Winds: Winds ahead of Surge: North to northwesterly at 15 to 25 knots (average). Lighter and more variable inshore S of St Helens.

Behind Surge: South to southwesterly at 15-25 knots (average) and gusty for a time, slowly easing to 10-15knots (average by 0500hr and lighter and more variable by 0800hr. North to northeasterly winds at 10-20 knots (average) are expected to develop during the afternoon.

Seas: 1 to 2 metres.

Primary Swell: Northeasterly 1 to 2 metres (Hsig), **Secondary Swell:** southerly up to 1metre (Hsig).

Weather: Partly cloudy.

Trend for Wineglass Bay to Tasman Island for Monday afternoon/evening: North to north easterly winds at 10-20 knots (average) becoming west to southwesterly at 5-15knot (average) mid to late evening.

Weather Forecast

Tuesday 29 December (Eddystone Pt to Wineglass Bay)

Winds: Northwest to southwest at 5-10 knots (average) though light and variable in places, especially close to coast. Winds becoming northeast to northwesterly at 5 to 15 knots (average) from mid to late morning. By mid-late evening west to northwesterly at 5-15 knots (average) are expected.

Seas: up to 1.5 metres (Hsig).

Swell: Northeasterly 1 to 1.5 metres (Hsig)

Weather: Partly cloudy.

Tuesday 29th December (Wineglass Bay to Tasman Island)

Weak low pressure trough pushes into SE Tasmania mid-late evening

Winds: Northwest to southwesterly at 10 to 20 knots (average), tending lighter and more variable close inshore during the early morning. Becoming north to northeasterly at 10 to 15 knots (average) from late morning. Winds easing and then tending northwesterly to southwesterly at 5-10 knots (average) by mid-late evening. Winds tending more southerly near Tasman Island.

Winds squally and erratic at times in vicinity of Tasman Island

Seas: 1.0 to 1.5 metres (Hsig).

1st Swell: South to southwesterly 1.0 to 1.5 metres (Hsig).

2nd Swell: Northeasterly up to 1.0 metre (Hsig).

Weather: Partly cloudy.

Weather Forecast

Wednesday 30th December (Wineglass Bay to Tasman Island)

A weak cold front pushes north and stalls near Wineglass Bay for a time.

Winds: Patchy westerly at 5 to 10 knots (average) at first . Becoming east to southeasterly at 10-15 knots (average) from late morning and easing to 5-10 knots (average) during the evening.

Winds may be gusty and erratic at times in vicinity of Tasman Island

Seas: around 1.0 metre (Hsig).

1st Swell: South to Southwesterly around 1 metre (Hsig).

2nd Swell: Northeasterly up to 1 metre (Hsig).

Weather: Cloudy with some showers.

Wednesday 30th December (Tasman Island to Finish)

A weak cold front pushes through SE parts

Winds: Patchy west to northwesterly winds at 5-10 knots (average) at first. Becoming south to southeasterly at 5 to 15 knots (average) from late morning.

Winds may be gusty and erratic at times in vicinity of Tasman Island

Seas: up to 1.0 metre (Hsig).

Swell: Southwesterly around 1 metre (Hsig), increasing to 1 to 2 metres (Hsig) offshore.

Weather: Cloudy with some showers.

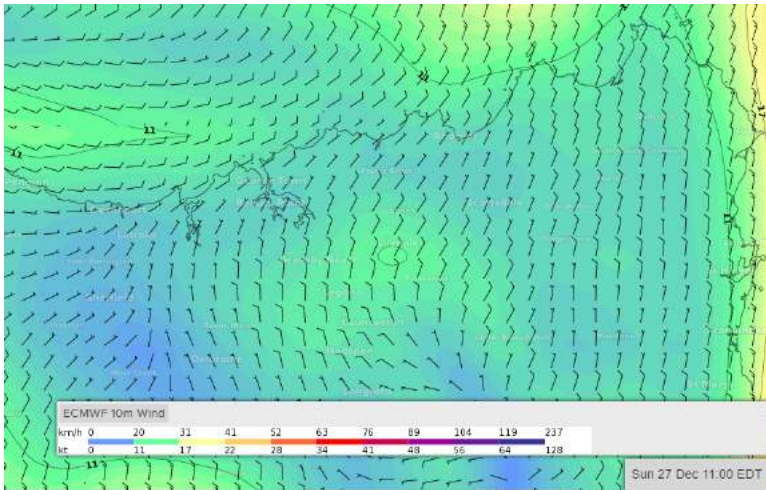
Weather Trend

Wind trend for Thursday 31st

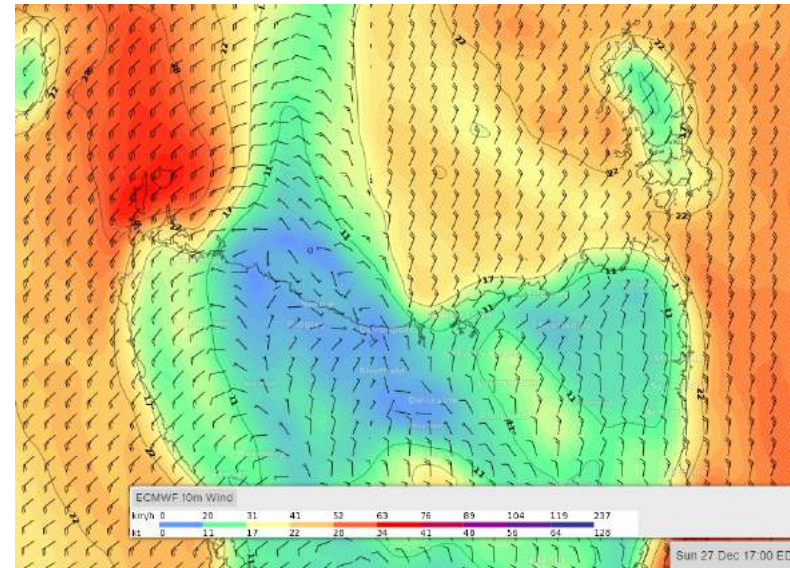
- Wineglass Bay to Tasman Island: South to southeasterly at 5-15 knots (average)
- Tasman Island to Finish: South to southeasterly at 5-15 knots (average) Winds becoming lighter and more variable at night in the Derwent.

Forecast Wind – ECMWF model via Weatherzone

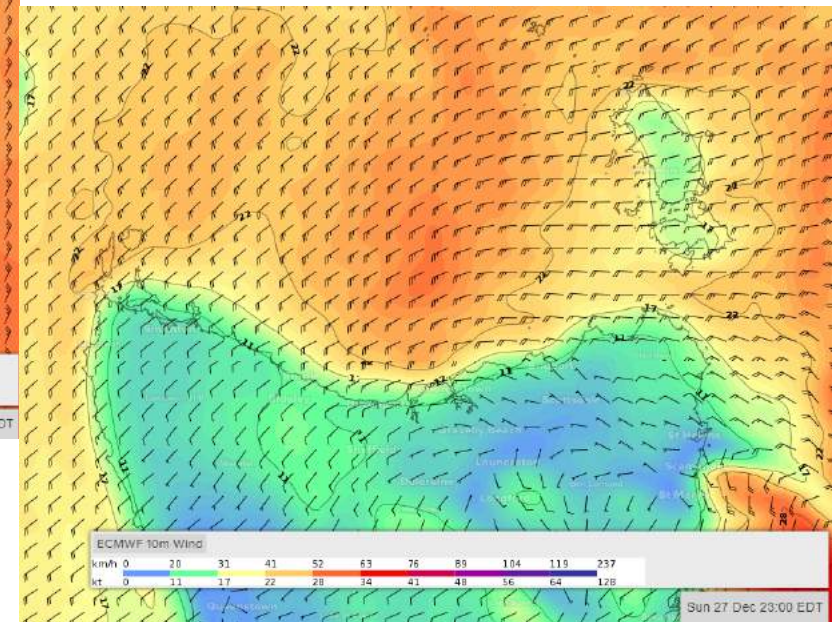
Cold Front pushing through the race course today



27th 11am Light to moderate NE winds



27th 5pm 15-20 kn N-NE winds.
Front over NW Tas

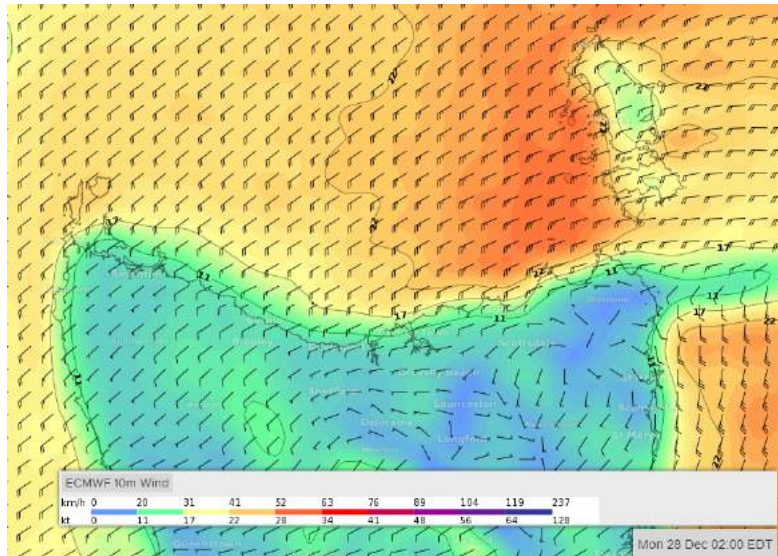


27th 11pm W-SW'ly, tending NW'ly
near Eddystone & more S'ly
down E coast

Timing and intensity of the front is critical

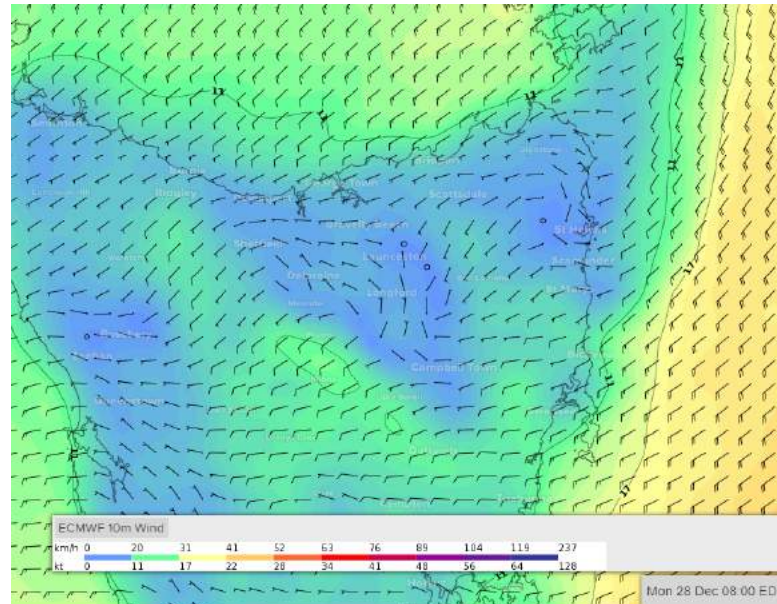
Forecast Wind – ECMWF model via Weatherzone

Winds becoming lighter and variable today

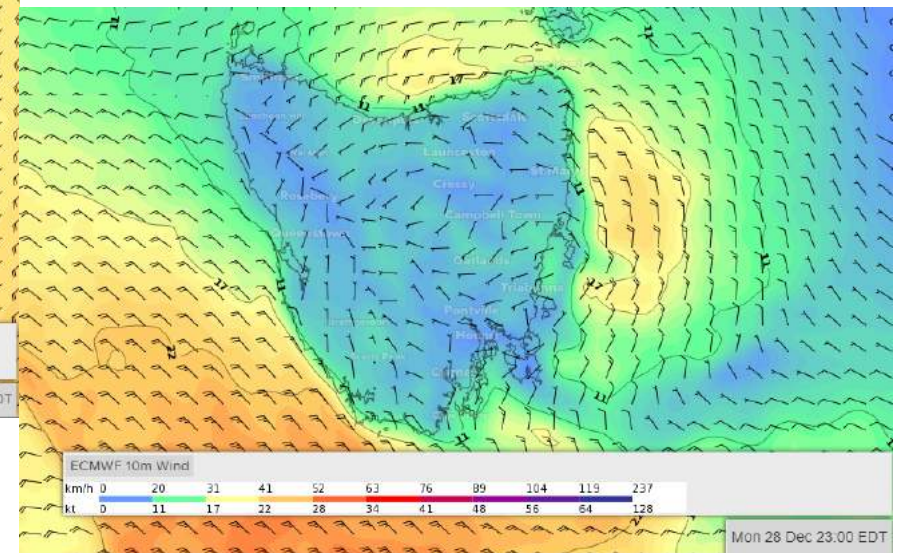


28th 2am **W-SW flow over NE Tas**
S-SW flow down E Coast

Note that the winds over NE Tas
may take longer to ease that forecast



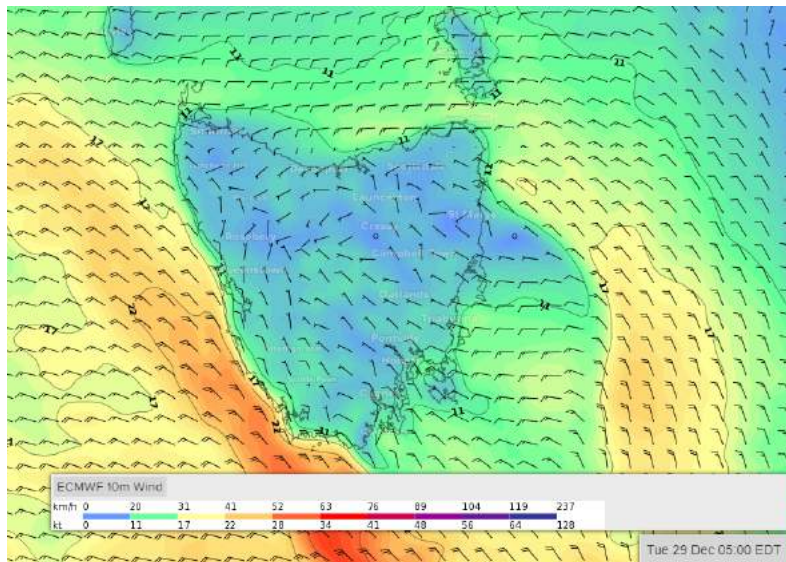
28th 8am **Wind becomes lighter and variable**



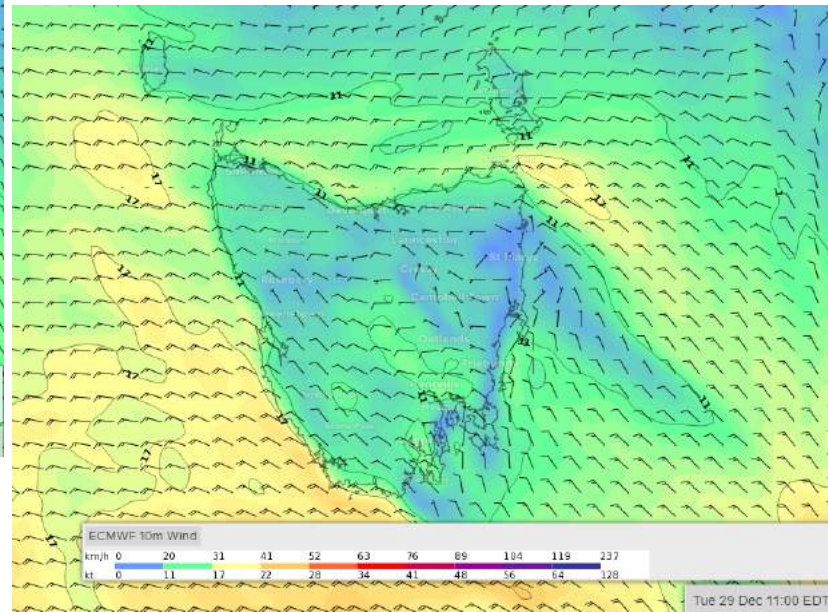
28th 11pm **Patchy NE-NW along the coast**

Forecast Wind – ECMWF model via Weatherzone

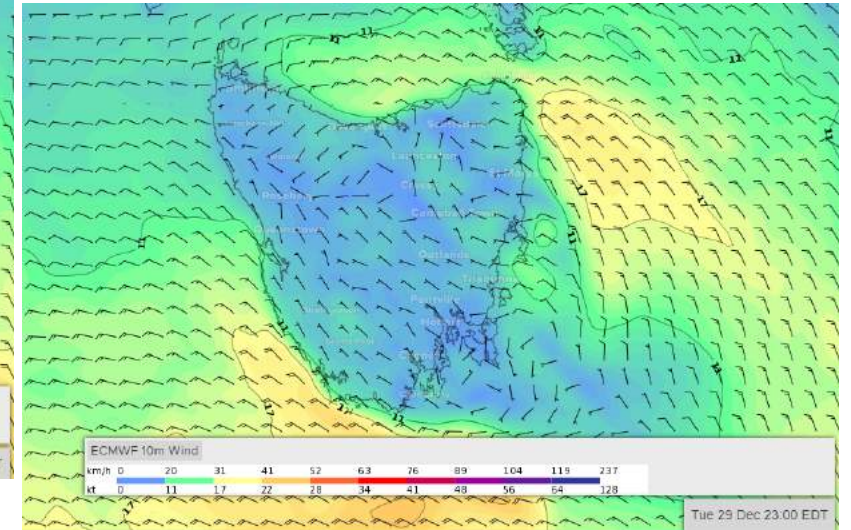
Weak change moving thru during SE parts



29th 5am Patchy W-NW flow



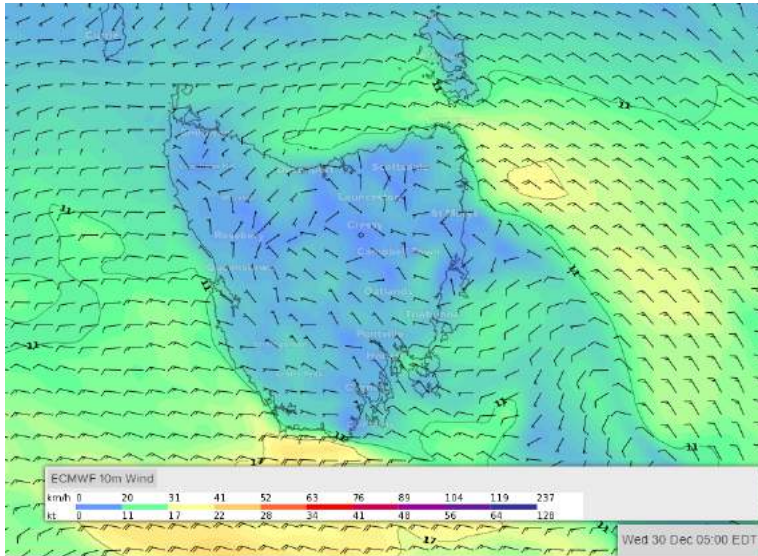
29th 11am N-NW flow, patchy in close



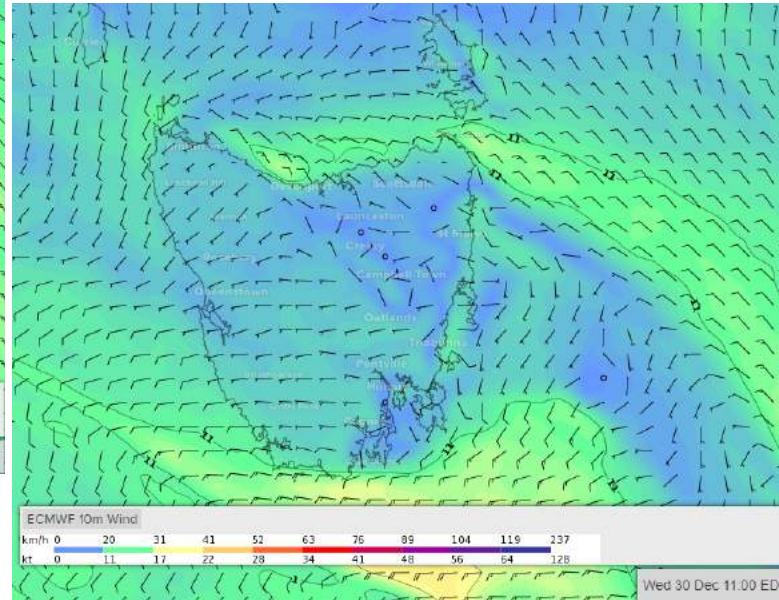
29th 11pm Change moving thru during SE parts

Forecast Wind – ECMWF model via Weatherzone

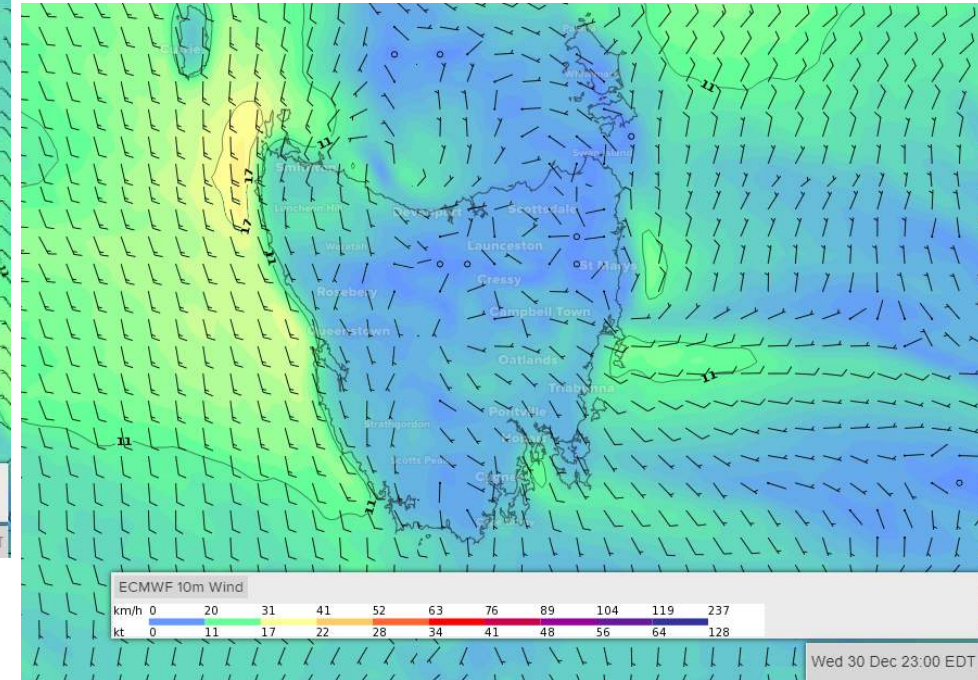
Light patchy winds behind change



30th 5am **Light S-SW flow, patchy in close behind change**



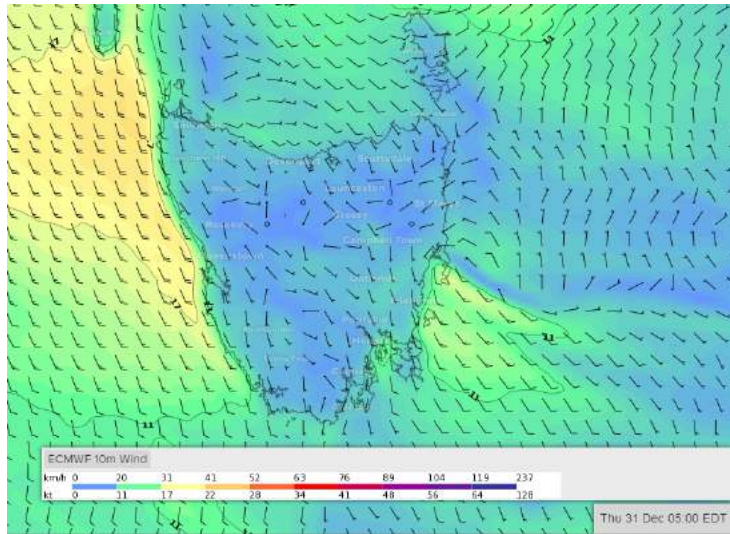
30th 11am **Patchy light S-SE winds behind change**



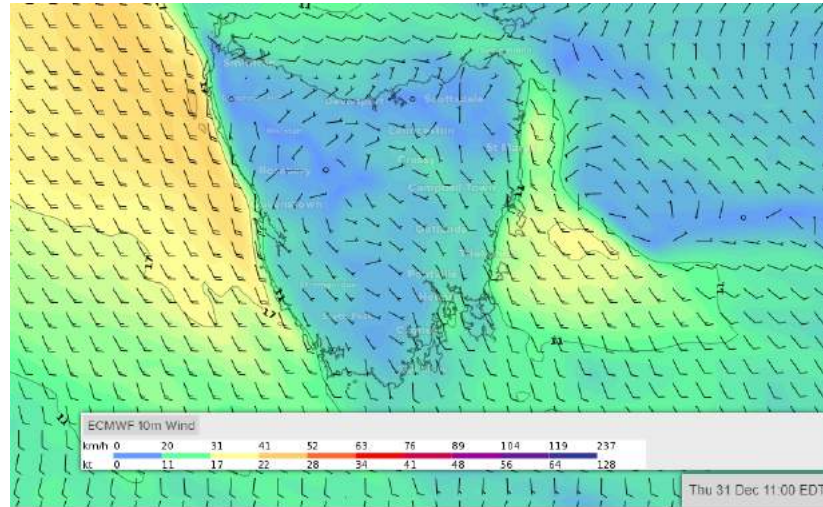
30th 11pm **Patchy light NE-SE flow**

Forecast Wind – ECMWF model via Weatherzone

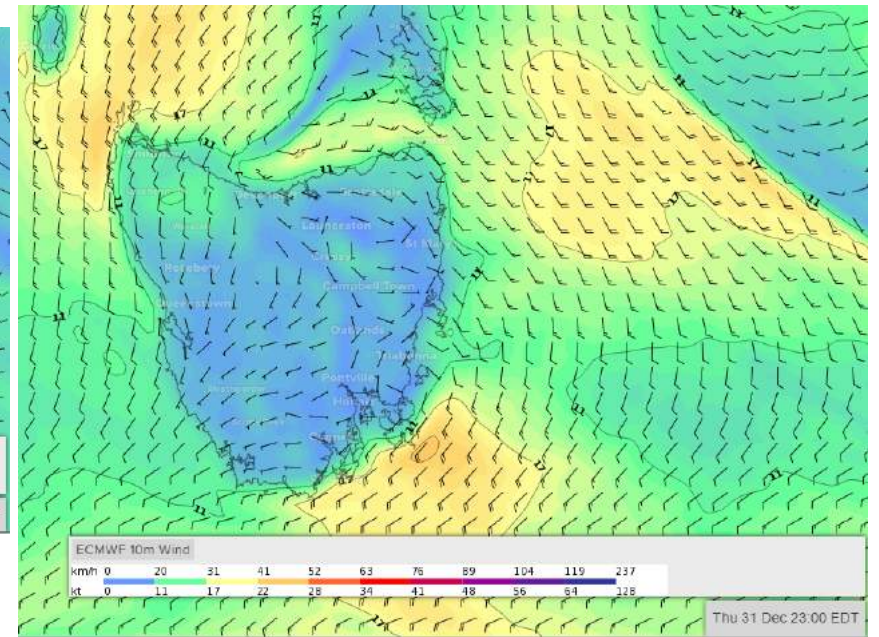
A cold front pushing through the State today



31st 5am **Front pushing thru SE
Early AM**



31st 11am **Light to moderate
S-SE flow**



31st 11pm **Light to moderate SW-SE
flow**

Tide at Low Head

SUN 27 DEC

LOW

3:45 am

1.32 m

HIGH

9:36 am

3.01 m

LOW

4:21 pm

0.94 m

HIGH

10:33 pm

2.85 m

Tide at Swan Island

SUN 27 DEC

LOW

1:44 am
0.35 m

HIGH

7:56 am
1.50 m

LOW

2:29 pm
0.13 m

HIGH

8:44 pm
1.31 m

MON 28 DEC

LOW

2:30 am
0.39 m

HIGH

8:39 am
1.53 m

LOW

3:17 pm
0.07 m

HIGH

9:36 pm
1.30 m

Hobart Tides

TUE 29 DEC		○ WED 30 DEC	THU 31 DEC		FRI 1 JAN		SAT 2 JAN		
LOW	12:00 am 0.91 m	LOW	12:30 am 0.95 m	LOW	1:08 am 0.98 m	HIGH	12:23 am 1.01 m	HIGH	1:03 am 1.04 m
HIGH	7:30 am 1.42 m	HIGH	8:11 am 1.44 m	HIGH	8:54 am 1.44 m	LOW	2:01 am 1.01 m	LOW	3:23 am 1.02 m
LOW	3:37 pm 0.40 m	LOW	4:18 pm 0.36 m	LOW	5:00 pm 0.33 m	HIGH	9:39 am 1.44 m	HIGH	10:27 am 1.42 m
HIGH	10:41 pm 0.97 m	HIGH	11:35 pm 0.99 m			LOW	5:43 pm 0.32 m	LOW	6:25 pm 0.31 m

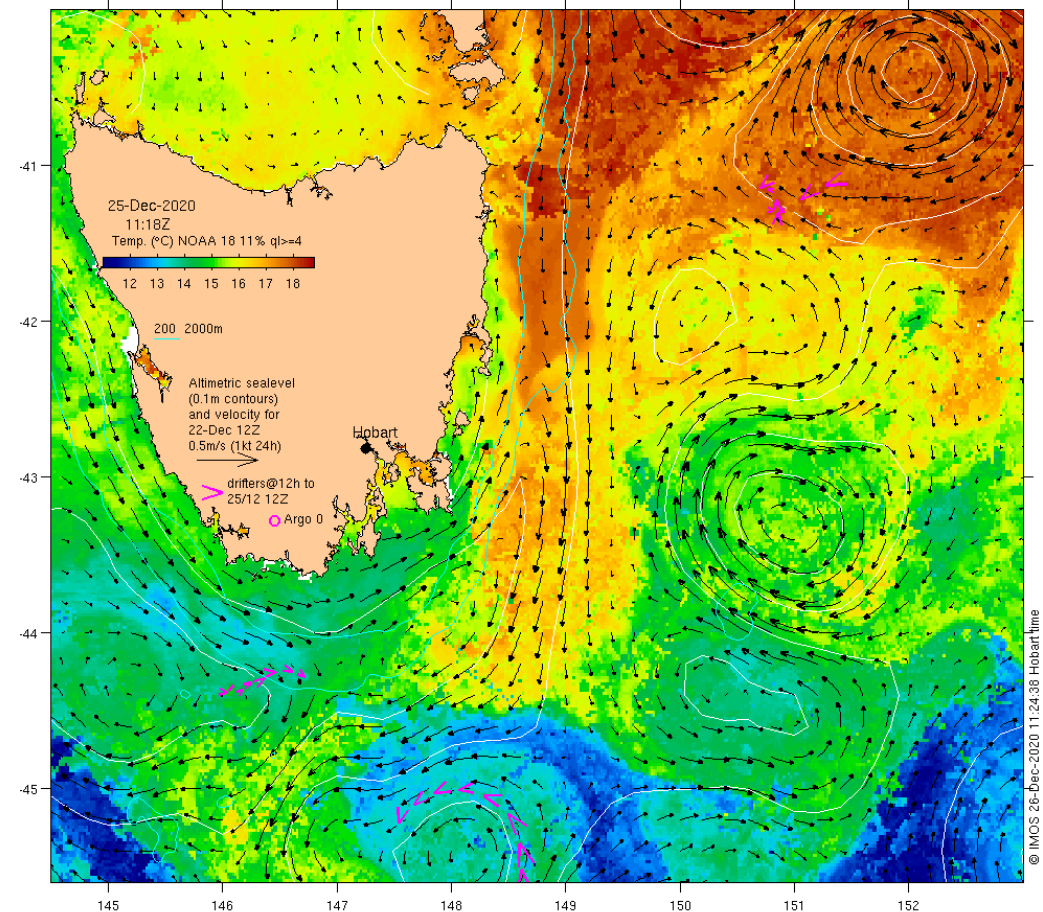
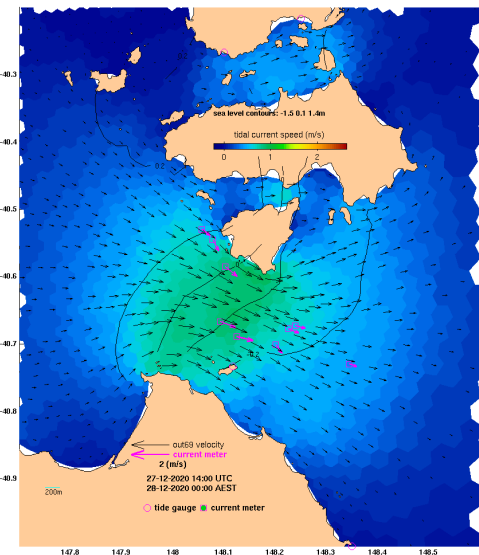
Ocean Currents

- A CSIRO ocean currents briefing is available from here

[http://oceancurrent.imos.org.au/news.php#Launceston to Hobart Currents](http://oceancurrent.imos.org.au/news.php#Launceston%20to%20Hobart%20Currents)

The latest CSIRO SST image (see figure right) is indicating a weak unfavourable north set current inside of the Shelf along the E coast. Meanwhile further east at the Shelf, the current is southbound and very favourable.

The favourable tidal 'window' in the Banks Strait will be open between 11 pm on the 27th to 4 am on the 28th of December AEDT (see Figure left). To make this window, boats must sail an average of 4.4 to 6.4 knots along the rhumb line from the start at Beauty Point. Slower boats will encounter adverse current in Banks Strait, which peaks at 7 am AEDT at nearly 2 knots. Thankfully it is neap tides this week or it would be worse.



Last Bit

- Always keep abreast of the weather via radio sources (VHF, HF, AM) including skeds, the internet (plenty of weather sites including the BoM) and exercise the Eye Ball Mk1 method at all times.
- Remember in forecasts and warnings that the average wind speed and the Significant Wave Height (Hsig) is forecast. Be aware that wind gusts can be up to 40% more (in thunderstorms gusts can be up to 150% more) than the average. Wave heights can be higher, up to twice the Hsig and lower than the Hsig. **Wave heights can be horrific in situations where wind wave opposes tidal and ocean currents e.g Banks Strait**
- Even in moderate conditions, the winds can be squally and erratic in the vicinity of Tasman Island. In broad W and E'ly flow, locally stronger winds can prevail in Banks Strait and in broad N and S'y flow, locally stronger can prevail in the Mercury Passage
- Have a great but safe race