Tricky Tassie Coast

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A question that is often put to us is "Which part of the Sydney to Hobart race track is the most difficult weather-wise?" Our reply is "All things being equal, it would have to be the east coast of Tasmania, Storm Bay and the Derwent that have given most competitors, including Kenn, the most headaches in the past" So let's have a closer look at these trouble spots:

The East Coast of Tasmania (Eddystone Point to Tasman Island): There are two positions on the race track that one should stick to religiously. The first is stay at least 30 nm off Eddystone Point and the second, stay at least 10 nm off Schouten Island. What we call the 30/10nm rule. Inside of these distances, wind conditions can be very flukey (apart from wind directions from the south through the east to the north). **It is hard to discipline oneself to do this at times but do it!** Complex tidal and ocean currents can draw yachts in being closer than they would like to be. The navigator should be particularly vigilant.

(i) Under broad westerly (NW to SW) gradient (900m) wind flow, a lee trough will usually form on the east coast of Tasmania, and affect waters up to 30 nm of the coast (Figure 1).

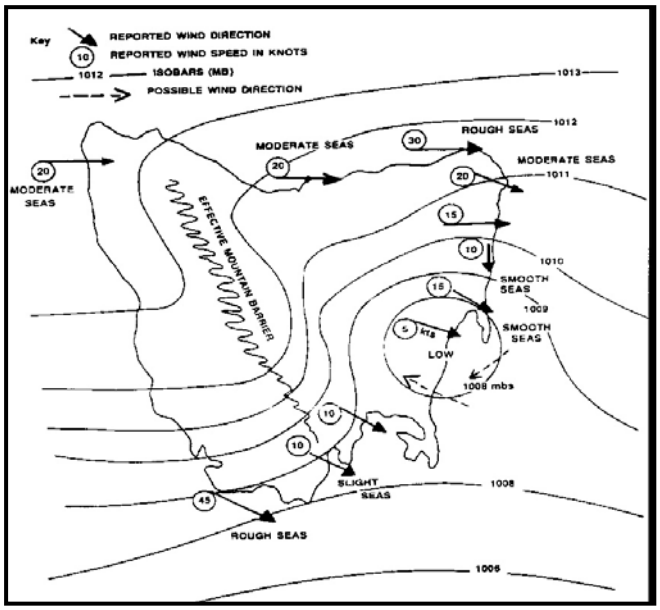

Figure 1.
Lee trough over Eastern Tasmania.
(From Wind, Waves and Weather. Tasmania)

However, the effects of a northwesterly versus a southwesterly can vary markedly. Let's examine them in more detail.

(a) NW gradient winds: Surface winds in the morning (up to around 11am local) will generally start as northwesterlies over most of the coastal waters. North of around St Helens Point, winds may even be slightly accelerated as winds funnel through Banks Strait. However, as the day wears on and the Tasmanian land mass heats, pressures fall along the coast and winds will start to turn more northerly and by 1-2pm will start to turn northeasterly inshore south of Eddystone Point. While there is the temptation to move inshore to benefit from this northerly, be aware that at sunset, this breeze will decrease quite quickly and can become quite light and variable for a period until the northwesterly kicks back in during the early hours of the morning.

(b) With a SW gradient, winds on the East coast become pretty awful inshore. To the north of Freycinet Peninsula, winds will be markedly affected. They often become light and variable during the morning after a light westerly land breeze overnight.

During the day there is a good chance of a light E to NE sea breeze. South of the Freycinet though, winds mostly commence as W/SW then gradually turn more southerly north of around Maria Island and then often SE during the afternoon due to the seabreeze effect. The stronger the southwesterly, the further offshore these effects will be felt, however, following the 30/10 rule should negate the worst of them. One thing that won't change, is that winds around Tasman Island in a SW'ly will be much, much stronger than those experienced offshore, due to the funnelling effect around the cliffs.

There is an obvious trap in the above, in that a prefrontal NW stream with it's most attractive inshore N'lies, will be replaced with SW/S'lies and very light inshore conditions post frontally. Moral of the story – To get the most out of the situation, be very sure of the timing of the fronts that are almost certain to affect you as you move down the East coast.

(c) With W gradient winds: The entire coast generally suffers from the effects of the lee trough.

By utilising the 30/10nm rule, one should be outside the worst effects of the lee trough. You would have to be at least 50-60 nm off the coast to be sailing in the true wind flow. This is just a little too far off under most circumstances unless you are going for the SE "blinder". This is the situation where you might have westerly winds going very quickly through the south to the southeast following the passage of a cold front. The associated low pressure system is generally close to southern Tasmania. Most of the time however, fronts are embedded in a very persistent west/southwest flow.

(ii) When yachts are at Tasman Island, wind speeds can increase and decrease (gusts/lulls) quite rapidly and the direction can also jump around all over the "shop". Be prepared for the bullets (squally winds)!!

(iii) You can generally go very close to Tasman Island, apart from its southern extremity, where there is a reef!

(iv) As you approach Tasman Island under west through to southerly flow, it generally pays to lay inside of the Hippolyte (at least between the Little Hippolyte and Cape Hauy). This firstly keeps you out of current that is generally setting northeastwards around Tasman Island and in flatter water. Secondly, on starboard tack you can get a nice lift along Munroe Bight if you are fairly close in. There is a definite line of pressure on the water that you have to be inside of to gain the maximum advantage.

(iv) Thunderstorms with their gusty, erratic winds could also pose problems with the passage of a cold front.

(v) Intense low pressure systems passing very close to southern Tasmania could see gale to storm force wind conditions prevailing through the southern part of the race track.

Tasman Island to the Iron Pot (Storm Bay): Once you get around Tasman Island and clear away to the west, wind conditions will generally ease.

(i) Under most conditions, one would straightline it from Tasman Island to Cape Raoul, but giving the Raoul a slightly wide berth (about 1nm off). The only situation that you would want to be slightly north of this rhumb-line and closer to the Raoul, would be in smooth water and/or under sea breeze conditions. In the sea breeze situation, the NE ocean sea breeze can get squeezed between Tasman Island and Cape Pillar (Tasman Passage) and

slightly more pressure can result just to the north of the rhumb-line.

(ii) Under any kind of offshore gradient wind flow, Storm Bay is affected by the significant topographic features of southern Tasmania and can be most frustrating for sailors. In a N'ly stream, winds will start the day as a northerly, but a NE seabreeze usually develops early in the afternoon. In a light to moderate NW stream (up to 23 knot gradient winds), winds will start the day from the NW then ease with NE to SE seabreezes developing shortly after noon. In a strong, prefrontal NW stream, strong, warm NW'lies can be experienced during the day, with occasionally very strong gusts. West to southwest gradient situations tend to be even more flukey through Storm Bay, with SE afternoon seabreezes developing if the gradient strength is not above 25 knots.

(iii) Once you have cleared Cape Raoul, then it is a straightline course to the Iron Pot.

(iv) If it has rained heavily in southern Tasmania in the week leading up to the race, then there will be a lot of extra water ebbing out of Fredrick Henry Bay. Don't be pushed too far left of your course.

(iv) Storm Bay can live up to its name, so be ready!!!

Iron Pot to the Finish (the dreaded Derwent River): Definitely a place that you can love or hate. It all depends on what time of the day you reach the Derwent!

(i) Under most regimes the River "shuts down" wind-wise from about 2200 hours local and does not "open" until 0600 to 0700 hr.

(ii) Once you reach the Iron Pot (which you leave to starboard by about 100m) it generally pays to work the eastern side of the river (staying about 100m off the headlands), especially at night with an ebb tide and after heavy rain. Under situations where heavy rain has fallen and light winds prevail, you may have to scallop in and out of the bays. But watch the headlands, not too close please!

(iii) It generally doesn't pay to work the western side of the river, especially from White Rock to the John Garrow Light (which you leave to port).

(iv) Under broad westerly flow, Mt Wellington can induce standing wave and rotor activity. Standing wave activity will generally be felt the most north of the Garrow Light and can lead to very flukey winds from around the middle of the river westwards. Slightly stronger westerly winds will occur towards the eastern shore. Rotor activity can lead to light southeast to easterly winds being generated over much of the river, especially north of the Garrow Light.

(v) The sea breeze during the day is mostly a southeaster and will draw more easterly out of the bays along the eastern side of the river. Under this situation, more pressure will occur eastwards of a line White Rock to the Finish. At times the east coast northeast seabreeze may break through to the Derwent.