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Briefing by Kenneth Batt

*(Refers to slides and weather charts through-out briefing)*

*(The slides and weather charts referred to are not decipherable from the CD-Rom when played)*

**Briefing commences:**

Sorry, I hope you can all see this, you probably can't (From audience - no).  
(umm) I know there is a screen down the back, if I stand out of the way a bit.

Anyway, (umm) probably similar to last year, the format, with some general information and I wouldn't sleep at night if I don't run through this sort of stuff. Then we'll look at the weather outlook and then lastly look at the oceanographic conditions that come courtesy of CSIRO Division of Marine Research, courtesy of George Cresswell et al down there at Hobart.

O.K., well just to rehash on the various chunks of the race track and firstly I have the Sydney to Gabo Island leg of the race where Southerly changes, including a Southerly buster, can be quite a problem and the last two Hobart races have seen Southerly busters occur, sort of, relatively early into the race and this year is looking no different at this stage. There is an excellent article in the December 1998 *Australian Sailing* by myself and Colin Boots Buckley on cold fronts over the South East Australian region. So that is very worthwhile reading, you know, from my point of view, but I'm a little bias I suppose. But from my experience, (umm) and in particular with last year's race, I learnt a lot last year's race, these Southerly changes have a habit of coming in more South-West and then slowly going South but then sort of hooking more South-West, that is, as the boats sort of, say South of Jervis Bay, close (as in "close in on") Gabo and Bass Strait. Whereas, the flow, say North of Jervis Bay, starts to become South-East a lot faster than that to the South. But, just be aware of these nasty things.

It probably pays to be West of the runline, in say basically South to South-Westerly flowing smoother water. Another lesson I learnt last year, there is always a trade off between chasing current and setting the boat up for good Southerly changes and I suppose in the set that we had out there, and it is still evident on satellite imagery, a good Southerly flow or South-Westerly flow vs

the South of moving current, kicks up a rather nasty sea wave in a short period of time. So as a result of that, boats bounce fairly easily. So it might pay to be, sort of, slightly West or West of the runline - instead of out there chasing current it is probably not a need to be a long way out for decent current this year anyway. East of the runline, in say South-East or Easterly flow; don't get pinned on the coast because, generally speaking, the wind will leave the water earlier, close to the coast and further off shore. But, how far East of the runline you go is left up to you.

A pre frontal trough development and these pre-frontal troughs can run ahead of the main cold front that can actually develop into the main feature and manifest as these intense Southerly changes up the N.S.W Coast. Now, while I think of it, these Southerly changes can actually be generated on the South Coast of N.S.W. in the Moruya area, providing we have a sharp land sea temperature gradient or contrast and at times we can have assistance a lot, courtesy of jet streams, which can work their way down to the surface. These things, at times, can not be evident on surface mass or will not be evident on surface mass and suddenly "bingo", and you've got this change. I'm not making excuses for forecast, I'm just stating to you how it is and how I found it over my own set of Hobarts. Now, I think in a way I'm pleased I'm actually working over this Christmas.

East Coast lows: the 1993 Hobart race was an example of pseudo East -Coast lows and depending on which prognostic set of charts you look at, a low might be on the cards and I'll draw your attention to that soon. A strong sea breezes, particularly on the South Coast of N.S.W, can get up to near the 25-30 knot range and hold a more Northerly wind direction over say the South Easterly sea breezes that we are generally used to.

Thunder storms, "beasts", should be recognized very early. Thunder storms can kill. It was only as I was getting the briefing of Telstra Cup so I apologise to those people on running down well worn path, but it is not only the lighting that the problem but the hail and of course the winds, and we have a chance of thunder storms and showers ahead of this Southerly change on Boxing Day. So just be aware.

And of course I put there the "wind vs the East Australian current" where we can kick up a pretty nasty sea to set in fairly quickly. So if your Southerly

change comes on earlier, where the current is strongest up this way, well we can kick up, you know, 7,8,9,10 metre sea - which is not chicken feed.

Gabo to Tasmania: this is the North East Coast of Tasmania (hope you can all see this but you can listen to me anyway). Tabled changes more West or South West in direction through Bass Strait and well, Tassy is slightly a different story. We can get the funnelling of this broad Westerly flow through Bass and Bank Straits. We get the corner effect where winds, especially our South-Westers, become more enhanced around the corner such as Gabo Island, and of course, Tasman Island is a little micro-study in itself. Bass Strait, being shallow relatively to say the Tasman sea, where you can get a fully risen sea very quickly after the onset of strong winds. And, sort of, these seas affect the Tasman sea, you know, just adjacent to Eastern Bass Strait. Pre-frontal trough development can be a problem here where we could get a "roll-cloud" a number of hours ahead of the main cold front and with that roll at that sausage cloud, we can actually get plenty of wind - generally short-lived and generally a few hours before the main cold front where we get our West to South Westers, say 20-25 knots, which can either abate fairly quickly or generally hang on for a relatively long period of time.

East Coast low - can affect the winds in particular the (sort of) broad South East Easterly winds that a low could produce or the 1993 Hobart race at the pseudo-East coast low just keep South South Westerly winds, right up the race track for essentially four days.

Flinders Island tends to offer a sheltering effect, so if you are close to Flinders or even a distance away, you'll get the smoothing down of the waves. And of course thunder storms are a problem down that way but probably not as much of a problem as they are in the N.S.W sector. Another thing I've learnt over time is this Bass Strait "sucking", where with current running, (essentially South East Australian current), runs around the corner into Bass Strait and if you are not, if you don't, have your eyes on your position, if you're not following your position closely you could end up being sucked into Bass Strait. Well, you know too far West of the, sort of, runline up near the oil rigs, for example.

East-Coast of Tasmania, well, from my masters/Ph.D. studies that I've been doing in just in recent times and the boat that I've been on we tried to keep at least 30 nautical miles off "Bediston". We've always tried to keep 15 nautical

miles off Maria Island, that is a no go zone, but don't you worry I've been caught in the past chasing winds so it pays to be generally "in sea" -generally the sea breezes unless you are sort of in there - it generally doesn't pay to be in close to the East-Tassy coast. Over Westerly flow generally we get this "lee vortex" which is South of the "Freycinet", south of Schouten Island where we get this North East to South East swing as we close Tasman wind direction becomes more South South Western and the pressure increases. Generally North of the "Freycinet" it is not too bad - you do get this West South Westerly flow but as your sailing South, you do run out of it and during the day this vortex manifests as a North Easterly sea breeze which quickly swings around to the South East or goes right fairly quickly. So, 15 miles of Maria, 30 miles of "Bediston" - you don't want to see the Coast until you are close Southern Tasmania. And thunder storms again, but no where near the problems further North and the "Tasman island effect" "where you go as close as you like within reason, there is little reef on the Southern part of the Tasman, but just be aware of the Tasman "bullets" -they bounce around the high ground near Cape "Pulla" (?)

Storm Bay can live up to its name. But in the last set of Hobarts I've been on, it hasn't. We got around Tasman and winds had generally faded up to the Storm Bay not too close to Cape Raoul or into Maingon Bay which is the entrance into Port Arthur, you can be left with very little wind in there. Questions you can be asking yourself is; is there an ebb tide running out of the Derwent which can set, you know, your light wind regimes, set your sail? Has it been rainfall over Southern Tasmania during the past few days? - because the Derwent River, being fed from the Central Highlands of Tasmania, if there is, of course, plenty of water up there it is just going to keep on running out. So even though you might have a flood tide there is still plenty of ebbing water. A flood tide could take you too far up into Frederick Henry Bay so you could end up near Betsey Island, too far right of the runline.

So just be aware of all this stuff and of course the dreaded Derwent, even though I was born and raised in Hobart, I sort of hate sailing along the Derwent, especially at night .

Wind generally touches down after 2200 hours (10pm), starts up again about 6am, unless we have strong synoptic forcing, where the winds stay up during the dark hours. Eastern side of the Derwent, at least to White Rock, generally pays,

especially at night with the ebb tide and the light winds at night and ebbing tide and especially after heavy rain tends to be at least currents running out there tidal flow, doesn't pay to be West of the line White Rock to John Gallow Light and in the last few Hobarts I've been on with broad Easterly flow, we've been too far left of the runline, if anything, under Easterly flow at night, if you are lucky enough, or during the day, up the middle line, there is more pressure.

Standing wave-roam activity around Mt Wellington, this mountain tends to dominate Hobart and the surrounding areas but under broad Westerly flow you get these (inaudible) type waves and waves that break and become rotors that create very fluky winds on the Derwent and from what I've seen it might pay to be on the Eastern shore coming up to the finish line. Sea breezes are South East of the river and will draw North-East down at Eastern bays and there is the "Ralph's Bay effect" where sea breeze here will really draws Easterly over there but I could go on further but you you'll only be bored.

O.K where do you get the weather and oceanographic information

(Refers to slides with references)

Well, firstly, the latest Off Shore magazine with an article by yours truly and it is on a hand out which is available at the office. In the Off Shore article, I've attempted, and through Sally Andrew I've utilised her article and modified that and I thank Sally. We have a comprehensive listing of all the weather information whether it has been broadcast by radio or weather fax. So you can be listening to the weather until it sends you stupid so everything is listed there. The bureau will have a stand down here, I and few colleges will be down at the CYC outside there probably around 7.30am on Boxing Day. I hope to be armed with the latest 10km or 20km resolution computer run of the winds. The Internet sites, the bureau sites and of course Telstra's free (gig) to both the Bureau and to the CSIRO site. The Weather By Fax, bureau's poll fax service, the 1900 recorded weather service which is a very popular service, but the further you call 36 is the waterway service, the bureau in conjunction with the waterways, brings you N.S.W. coastal forecast along there, Special Race Forecast of the sked times prepared by the bureau, Telstra Coastal (inaudible), Am/FM radio, HF weather fax, coastal control and coast guards, weather link pager service (which works probably as your digital phone does down to about Green Cape cuts out over Bass Strait and doesn't come alive again until you hit

the Derwent- at least you can obtain warnings and that within 3 minutes from being issued from the bureau.)

The “eye ball up” method keep your head out of the boat at all times and look at what is going around you and those boats that are so equipped with email there is our WHRSYD@bom.gov.au we urge you to send in the latest weather observations to us because it is helping, not only you, but helping us to come up with a good race forecast.

So O.K., on with the outlook - at the moment (this is 0500 hours) a low resolution surface analysis with a high down near New Zealand with a ridge up the coast broad low pressure area out there on the coral sea this cold front, pre-frontal trough - you can be lucky we can actually dash it in for you on the surface chart. This is expected to slide away under the influence of this High and I suppose it's this front here that is expected to have some effect Boxing Day. But it is this low pressure complex up here that on the models might actually end up, sort of, in this general area here and interfere with the whole ball game. All the computer models are essentially saying different things, at this time, which doesn't help doesn't help you, doesn't help us. So it is very frustrating. I suppose the two main models we look at are GASP and the EC model, the EC is unfortunately unavailable to the public at large. But GASP at the moment, the latest run equals that of the EC run yesterday. But yesterday GASP and EC were highly divergent. The US and the UK models are fairly in line with the EC and GASP at this stage. But I can't wait to get back to work to see the latest run with the EC.

These charts are valid 10pm on the day nominated and this is for tonight (Thursday Christmas Eve) that is this pre-frontal trough or this front sliding away on this cold front was, out here on the analysis, is expected to get closer to South East Australia. The models increased the central pressure of that High to about 1033, so it's a bit of a pseudo blocking pattern and hence that is why this has sort of slipped away and I suppose there is a good chance this will slip away so we will only get the effect on the Southern Coast.

There is all these things you will have to be thinking of. But if we are thinking about it you should be too. So there will be no rest between now and the end of the race for those people being charged with “strategy”.

10pm Friday this is, this front out here, this is expected to close on Victoria by 10pm Friday night (tomorrow night). A fair bit of cold air behind it with these dash lines here, indicative of colder air at least getting up probably the thing has climaxed and there is a good chance it is going to slide - model peaking central pressure of the High around 1033.

10pm Saturday this GASP run global simulation prognosis model running Australian grown model by 10pm Saturday has pushed this change up the N.S.W coast, so this red arrow - Southerlies. Looks like colder air, it is expecting colder air up into Victoria, Southern N.S.W, so with that you can say right, 20/30knot Southerlies with stronger gusts and they will slowly abate.

O.K. the bit of a hiccup, if I just take you back one, could be the way this low here; this is a low pressure area here. It depends on the way the models have handled this. Now GASP has handled it slightly differently to what the EC and the other models have. This could wind up, depends on the position of the jet stream around about 30 odd thousand feet but this is something to keep an eye on here. When I read out the outlook you'll understand why I have worded the way I have. So this model, this is, is a broad low area here so what goes on there is anybody's business. This is the way I think it is going to come about which will be fine-tuned daily of course.

Sunday night. Highs expected to reach in up the coast so eventually South-West or South West Southerly flow down the South will turn more South East generally and on Monday 10pm the highs sort of out here again over near East Tassy so we get this broad North Easterly flow, Northern flow, over the race track. When you see it there is another cold front the sort of "pushed" up to the West of Tasmania.

OK now we get out day 6/7 of the model run - this is fantasy land stuff. Anything goes. Four to five days (yeah) but once you get out day 6/7 (ah yeah). So the models are pushing this front closer to Tassy by 10pm Tuesday broad say Northerly flows North-East flow ahead of this change.

Then 10pm Wednesday the model wants to push this trough of low pressure down over Tassy so it looks like the flow is going to go more Northerly. Now, East of Tasmania but sort of hold Southerly South Easterly over here. So yeah so what I'm trying to say, here is this front is pushing that front through so we

go West South West and then quickly round and yeah it is anybody's guess I'm afraid.

OK, so what I've written down here (umm) Saturday South East North East 10/15 knots ahead of a Southerly change around 25/30 knots with stormy gusts expected late Saturday. Timing intensity has to be fine-tuned by you and us. Chance of showers and thunder storms ahead of the change.

Sunday; South Westerly winds 15/20knots south of Jervis Bay and into Bass Strait tending North South East around 15 knots over the day. North of Jervis Bay winds generally South East East around 15-18 Knots and gradually abating. Probably not good news for the boats going North.

Monday; winds tending North East North in Bass Strait and Tasmanian Coast around 10-15 knots but increasing to 15-25 knots over the afternoon ahead of a cold front situated well for the West of Tasmania. Winds along N.S.W. coast will tend North North East around 10-15 knots stronger at times on the South Coast.

Tuesday; winds generally 20-25 knots from the North East to North West ahead of a cold front. Turning west south west at 20 knots during the early evening. (timing again) Winds speed should abate fairly quickly after the change. This front showing signs of slipping away to the South-East and as such will find difficulty making it to the N.S.W coast but stay tuned.

Can I have a please note this outlook is based on limited data that will need to be fined tuned, which we do. So ah between now and the race, the time the race starts, you will be fine-tuned and we will be there on Boxing Day to give you a hand. So please make yourself available to that service.

OK "oceanographic brief" so on behalf of CSIRO Division of the Marine Research, if I just read, I'm not an oceanographer, I should get Mark Gibbs out here, I know he is round the back there somewhere. The situation with the East Australia current meander you can see that as you all know that people who have sailed the Telstra Cup and races over the last couple of weeks have noticed that there has been a lot of set off the coast. Like, I was out racing on Sunday and we had 2 knots off between Palm Beach and Narrabeen, that was in close and both and boats have been reporting 3-4 knots further off so that comes



courtesy I suppose of this main eddy now, sort of, moving further East has been chopped off but there is still decent current inside of the shelf indicated by this black line. So the situation with the East Australian current meander, of a large epicentre, situated around 36-152 sort of this thing here, 36 is here and 152 is there. This big eddy - that is the main Tasman front so the warmer water separated from the relatively cooler water to the South. It is largely unchanged, so the situation is largely unchanged. The Eddy may slide Southward by up to 100 kilo metres during the next week.

There is a noticeable band of warm water that peels off the East Australian current meander near Sugar Loaf Point and runs South along the shelf all the way to Jervis Bay. So that is that little thing in pencil line there. So all the way South where it feeds into this end. So warm eddies spiral clockwise so the waters (inaudible) counter clockwise. Whereas with cold eddies they spiral counter clock-wise.

We've seen bands like this before but haven't surveyed them well enough. In November 1989 we scanned one like this between Jervis Bay and Sydney we encountered it just North of Jervis Bay when the sounder read 125 metres. The current was 2.2 knots southward and the warm East Australia current water extended all the way to the bottom. Even at the 75 metre iso-bar (I was going to iso-bat) off Port Kembla because we were coming closer the current was 1.5 knots. There is a cold plume heading North ward along the East Tassy shelf past Flinders "so he" dips out into the blue region (it is hard to see but you'll see some colder water with a bluish tinge but there is also a greenish tinge down here indicative of warmer waters, sort of favourable water.) There is also that tongue well out to the East.

OK there is a cold plume heading Northward on the East Tassy shelf past Flinders probably about 1/2 knot so the best (inaudible) is flowing northward at about 1/2 knot. Out to sea from Eastern Tasmania tends to be a warm eddy as was hinted in the white yesterday. So I trust all of you have been following the CSIRO link on this. The pattern of the East Australia current system is evolved quite quickly since 19 December. The Branch at the AC that flowed in towards Pitt Water has been cut off, OK further North, all the East Australia current flowing now follows the meander out to sea - 3 plus knots. The anti-clockwise end extends from Wollongong into Bass Straits and from the shelf edge off "Merimbula about 350 km out to sea. It is big! A large amount of warm

water peals off the Eastern edge and the eddy reaches south. Near Green Cape warm water from the eddy follows the shelf edge to the South. Perhaps that eddy will form and will become more obvious to the East of Bass Strait (so perhaps out here somewhere). There is up-welling of 15 degrees celsius water at the Gippsland Coast, the Eastern Tasmanian region is partly cloud affected (see this white stuff is cloud) and shows cold 14 degrees celsius water near shore possibly the role of Northerly winds. There is warmer 16 degrees water off the shelf and its there the currents are likely to be favourable, like Southward, but only to the extent of maybe a knot. So it pays to study this image in detail and we'll hang up the colour one of these downstairs and the write-up and there is a good chance that George will put up something new on the website today.

OK well the only thing to say now is Merry Christmas and have an exciting but safe race.

### **Briefing by Ken Batts finished.**

[applause]

### **Closing speaker**

That brings a close to our briefing. Thank you everyone for coming and if there is any questions to Ken Batt or the weather people or any general questions here please contact myself or the Commodore and others.

Thank you for attending today and we wish everyone a safe and speedy journey across Bass Strait and I'll see you in Hobart (applause)

(Question from the audience which is inaudible)

That is a good question, are there any medicos sailing or anyone else of that sort of capacity, like nursing sisters or others, we would like to know that. You can indicate, perhaps through the sailing office, those people who have those qualifications. That is a question from Young Endeavour radio relay team.

And if you could please indicate if there are any Doctors on board we'd like to know. And we will use that professional advice, probably via radio, if we do have problems. So any medicos or other people similarly qualified could you please indicate to the sailing office your qualifications.

Thank you very much.