

SENIOR CONSTABLE UPSTON

Q1 This is an electronic record of interview between Senior Constable David Upston of the New South Wales Water Police and Hugh Hutchinson at the Bureau of Meteorology Hobart office. It's Friday, the 24th of September, 1999, and the time on my watch is now 2.30pm. Also seated to my left is Detective Senior Constable Gray from the Bega Detectives. Hugh, for the purpose of the interview, could you please state your full name?

A Hugh Austin Hutchinson.

Q2 And your date of birth?

A 5th of the 5th, '43.

Q3 And your address?

A 21 Jungira Street, Howrah, Tasmania, 7018.

Q4 And your occupation?

A Meteorologist.

Q5 O.K. Hugh, prior to conducting the interview I informed you that, that Senior Constable Gray and I are making inquiries into the 1998 Sydney to Hobart Yacht Race and in particular we, we're here to talk to you today about some information that we have received from a member of the public in relation to some questions that he feels are pertinent in regards to the race and, and you might be able to give us some sort of insight for that. Do you agree that, that we had this conversation prior to the interview?

A Yes, I do.

Q6 O.K. Hugh, could you please state your experience in, in the, in the Bureau of Meteorology as a, as a forecaster?

A I started at the age of 21 at Sydney Airport, forecasting for domestic aircraft. I then moved, moved to Hobart 12 months later and worked here in Hobart for several years before moving to New South Wales again to the C.S.R.I.O. Division of Irrigation Research in Griffith in New South Wales, the irrigation area for 2 years. Returned to Hobart in late 1970 and I returned to the position of meteorologist in charge, or senior meteorologist as it was called, of the forecast and warning section, which was upgraded to the First Regional Forecasting Centre in Australia here in Hobart. I continued on as the senior meteorologist in that section until I was promoted in, in 1986 to the position of regional director, a position I still hold.

Q7 O.K. And how long have you held this position now as the regional director?

A Yeah, since, I was promoted in early 1986.

Q8 O.K. All right. Thank you very much. Now as far as the, the Bureau's concerned, and, and in particular your region down from, in Tasmania, how long have you been involved with the Sydney to Hobart Yacht Race?

A Well all the time that I've been in Tasmania as a forecaster in the early years, as a rostered forecaster, from 1971 as the person in charge of the forecasting and warning section that was responsible

for organising the southern half of the race, the forecast for the southern half of the race. And I then became regional director here in 1986 and for a time I didn't have anyone else in charge of the Regional Forecast Centre except myself, and I still continued on that function until I was able to get a supervising meteorologist in 1990, in charge of the forecasting and warning section.

Q9 O.K. And obviously the, the Bureau of Meteorology has a number of roles in, in forecasting. And where in fact or, or how, what information do you give to the Sydney, to the C.Y.C.A as far as weather briefings and weather reports?

A Before the race, there is a briefing on Christmas Eve of a general nature to skippers and, and navigators, and then on the morning of the race there's a package, or has been a package of information provided. This is in Sydney I might add, not, not here, to give them the latest in forecasts before they depart around noon for the start of the race. Then, once the race is on, there are forecasts, customised forecasts provided and recently we've been doing two per 24 hours of those customised forecasts that are provided to the radio relay vessel to pass on to each yacht at specified broadcast times during the race. Apart from that there's a normal meteorological service that provides to marine, as a marine weather service, coastal waters, high seas forecasts, and also warning services, both

for coastal waters and high seas. And there are three officers that are involved in the responsibility for those routine services, Sydney, Melbourne and Hobart. The Sydney to Hobart Yacht Race customised service is provided by two officers to try and keep it simple in terms of the hand over from one to, to the other at 38 south.

Q10 And that is your area of operation, from 38 south down to, as far down as Hobart?

A Yes.

Q11 For the Sydney to Hobart Yacht Race?

A For the Sydney to Hobart Yacht Race we customise that forecast south of 38 south to be provided as a special forecast to the radio relay vessel during the race.

Q12 When you say, customise, what do you mean by, customise the forecast?

A Provide something that is exactly what is required for by the crews on board in terms of the area of coverage that's provided in those forecasts. The coastal waters forecast cover an area up to 60 nautical miles offshore, some of the yachts in the last Sydney to Hobart Yacht Race were more than 60 nautical miles off shore, so the coastal waters doesn't extend beyond that by our definition of coastal waters. So you would need to be getting the high seas forecast if you wanted the specific area that was covered by the forecasts that, that you need. So what we do in the Sydney to Hobart case is, provide a forecast that is for that particular

course of the race, be it slightly outside the coastal waters boundary, or within the coastal waters boundary.

Q13 Who originally sets down the area of operation as far as the forecasting's concerned? Do you have some sort of liaison with the club, and do they ask for specifics, or do you suggest to them what information is best provided?

A It, it's gone on historically the way it is, basically, for decades and the, the modern people that are on the supervising the forecasting centres in Sydney and Hobart are carrying on the way it's been done for a long time, like 30 years. So does that, that answer your question?

Q14 Yes, well what I'm, what I'm basically saying is that if there's a certain criteria required - - -

A Yeah.

Q14 - - - who originally set down that and, and to what degree did they ask for certain information? When you say that you look at coastal waters, and setting out a perimeter - - -

A Mmm.

Q14 - - - that's just outside, shall we say, the run line, taking into account that in fact some yachts travelled up, up to 150 miles east of the coast.

A Mmm. Yeah. So?

Q15 So what I'm saying is, that obviously there is a set criteria to the C.Y.C.A. asking for only a specific area of operation?

A Yeah. We, we just do the forecast for - - -

Q16 Yeah.

A - - - for the race.

Q17 Right.

A They're, the yachts are, they're, they're, that's 30 nautical miles, so that's 60, those yachts are outside the coastal waters area.

Q18 Yes.

A Less than a third of them. So the point is that, that depending on the centre of the, of, of this vortex here, with the low - - -

Q19 Yes.

A - - - the cyclonic circulation round the low - - -

Q20 Yes.

A - - - you may have a storm forced wind warning out for here but not up, up there, and so on. And this might be on the high seas and that's on the coastal waters.

Q21 Right.

A So by getting a customised forecast, that should be taken into account and if in fact the, the, the winds were 45 to 55 knots through a band here, and, and not further down into this area, we forecast that to be so, and, and so on.

Q22 Yeah. So, so you in fact decide - - -

A Mmm.

Q22 - - - what area that you should be forecasting for. So what we just, we're looking at now map 1 in the, in the

report of the 1998 Sydney to Hobart Yacht Race, Race Review, May, 1999. Correction, May 1999.

DETECTIVE SENIOR CONSTABLE GRAY

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SENIOR CONSTABLE UPSTON

Q23 And we're just pointing out an area some 60 nautical miles off the coast, and in fact some yachts are out in this area of in, in this area, beyond that 60 miles off the coast. Is that correct?

A Yes.

Q24 That's what you can see here?

A Yes.

Q25 So if there's a strong westerly breezes, a strong westerly winds blowing across here, would it not be pertinent then to look at this area beyond that and forecast, and look at forecasts there?

A (NO AUDIBLE REPLY)

Q26 Is, can you see what I'm - - -

A The point is that the high seas forecast - - -

Q27 Yes.

A - - - covers an area out to New Zealand.

Q28 Right.

A The, the coastal waters forecast - - -

Q29 Yes.

A - - - is defined as being only 60 nautical miles offshore.

Q30 Yes.

A So that you could have a, a storm, not talking about this situation - - -

Q31 Yes.

A - - - but in another situation, you may have a storm force wind around a cyclonic circulation - - -

Q32 Yes.

A - - - over the Tasman Sea - - -

Q33 Yes.

A - - - that isn't affecting the, the coastal waters - - -
-

Q34 Waters.

A - - - back here.

Q35 O.K. So then it wouldn't be pertinent to, to give information about that - - -

A To the yacht - - -

Q35 - - - to the yacht race?

A - - - race. In some cases. It was in this one, but not in others.

Q36 O.K. So when was in fact the low pressure system first broadcast off the west coast of, of Tasmania?

A (NO AUDIBLE REPLY)

Q37 When it, when it started to develop, are you aware of that?

A It didn't develop off the west coast, it developed to the north east of Tasmania.

Q38 Well the cold, the, the front was coming across.

A The front was coming across.

Q39 Right.

A That's true.

Q40 Right. And wasn't that seen to develop? Was there any information relating to how that was going to develop?

A Um - - -

Q41 Was there any, any information to suggest that that was going to develop into, into a low pressure system of that magnitude?

A Right. These are the analyses from the limited area prediction model that we have.

Q42 Yes.

A And that, they show that at 11.00am local time on the 24th, yeah, of, of the 24th, the, there was no low being shown. In fact when we look at the track of the low pressure centre as it developed after Christmas, it was located just north of Wynyard at 3.00am in the morning on the 27th of December, and moved in a curved path towards the north east to an area south of Gabo Island and then started to move south east over a period of 24 hours.

Q43 Right. Taking into account that track then, and obviously from this figure 2, which is also in the, in the same report, that, what can you tell me about this? Is this where the, the, the low pressure system first developed?

A Yes.

Q44 Now when that, when that occurred, that is - - -

A What's that, the 27th, 0300? This is the 26th, 04, that's 3.00pm in the afternoon on the, on the 26th.

There were some small lows around, but nothing causing more than about 25 knot winds at Wilsons Promontory and 30 knot north easterlies on, on the New South Wales coast at that time.

Q45 Right. And this is on the 26th?

A 26th of December at 3.00pm in the afternoon.

Q46 O.K.

A This was in fact the time that the race was underway.

Q47 Well it had only been underway in fact for 1 hour.

A Yes. And there was strong 30 knot north easterlies down the New South Wales coast.

Q48 Yes, yeah. And then on the 27th at 3.00am this low developed?

A 27th at 3.00am, that's it there. There's, there are lows in the vicinity of North East Tasmania. We actually, locally here, put in two small centres our, and an overall circulation here that's producing 40 knots at Wilsons Promontory and 30 knots at Gabo Island at that time. On the New South Wales coast there, the winds are offshore, which sometimes causes the winds to be lighter in, and on a leeward shore - - -

Q49 Yes.

A - - - but they're certainly of the order of 15 knots at several places on the New South Wales coast and it looks as though that one's 10 knots - - -

Q50 O.K.

A - - - there.

Q51 Well let, let's concentrate on, on this area here which is, which is off the, off the Tasmanian coast.

A Mmm.

Q52 And in fact above Tasmania on the north eastern corner.

A Yes.

Q53 Now that's still on the 26th - - -

A Right.

Q53 - - - is that correct, or the 27th?

A It's the 27th at 3.00am.

Q54 O.K. The 27th at 3.00am. What would that suggest to you there?

A Well bearing in mind what's gone before, the - - -

Q55 Yeah.

A - - - there, there's more definition occurring in, in the, the low, this is a general area of low pressure down here - - -

Q56 Yes.

A - - - you've got strong north easterly winds ahead of it - - -

Q57 Mmm.

A - - - and you've got strong south westerlies. Now, by strong I mean they're in fact reporting 30 to 35 knots at Gabo Island and it looks like Montague Island to me - - -

Q58 Right.

A - - - and then south west 25 knots, 30 knots in places, back towards Cape Otway and 45 knots at, at Wilsons Promontory.

Q59 So looking at these, it indicates that there's, there's some sort of unstable build up, would it not?

A The pressures are falling, which indicates that, that not only is the, well it partly indicates that, that these things are progressing through and the pressures are falling ahead and actually rising over western Victoria where the front has gone through. There's not much evidence at that stage. The central pressure of the low is, is not that, that low at that stage, about 992 hectopascals. It's not excessively low and the winds are nothing unusual with a 992 millibar centre low, but it's an unusual low and the centre of it is very, there's a, there's a broad area of low pressure that hasn't got a tight centre of low pressure in it at this stage.

Q60 At this stage?

A No.

Q61 Which is, which is still on the 26th?

A Yes.

Q62 Early the 26th?

A Yes.

Q63 Do you know if this was being monitored rather, in an event that it may occur to turn into something?

A Oh, in fact it was expected to do so.

Q64 Right.

A In fact the Victorian office that's responsible for the, the Bass Strait forecast and the high seas out in here - - -

Q65 Yes.

A - - - issued a, a storm force wind warning - - -

Q66 Yes.

A - - - soon after the race started.

Q67 Right. Right.

A An hour or so after the race started.

Q68 O.K. And they issued that, and was that then forwarded off to the, the Young Endeavour, the radio relay ship?

A Oh - - -

Q69 That you can recall?

A It would have been available through the normal communications channels.

Q70 O.K. So let's now continue on looking at this, this low that we're saying, that's fairly stationary - - -

A Mmm.

Q70 - - - but building?

A Yes.

Q71 All right. And then we move on to in fact it's, it's building further? Does it appear to - - -

A It's getting more organised, I suppose - - -

Q72 Yeah.

A - - - I, I would comment that the circulation around it, it's starting to wind up a little bit more.

Q73 Yes.

A Before it was just a, a line of demarcation between strong north easterlies and strong west/south westerlies, now it's starting to get a little bit more actual rotation into it and the wind's actually gone up

to 55 knots as reported at Wilsons Promontory at 9.00pm on the 26th.

Q74 O.K. So can you relate that there - - -

A Yeah.

Q74 - - - that what we're looking at on the, on the map, to an actual storm warning - - -

A Um - - -

Q74 - - - issued?

A Just a moment. That's 0-4-U-T-C on the 27th. You want it just at this time, do you, at - - -

Q75 Yes, just at that time.

A - - - 10, 10 at, on the 26th, right. 23 on Saturday, the 26th, that's pretty close to it. That's 10Z, that's 20, I think that's about it. West/south westerly winds, 30 to 40 knots, increasing 35 to 45 knots Sunday morning and 45 to 55 knots late Sunday afternoon. Seas 3 to 4 metres rising 4 to 6 metres late in the afternoon. That's issued by the Victorian Regional Office - - -

Q76 Right.

A - - - at 23.16 hours, that's nearly, about a quarter of quarter past 11.00pm on Saturday, the 26th of December.

Q77 Now if that, if, just, I'm just trying to clear up the area of operation here again.

A Yes.

Q78 Now if that's, this area is, is your, is your area - - -
-

A Mmm.

Q78 - - - below 38 south?

A For the delivery of the customised - - -

Q79 Yes.

A - - - forecasts to the Cruising Yacht Club of Australia for relay via the radio relay vessel, yes.

Q80 Right. Why would in fact the Tasmanian Weather Bureau issue that if this is basically your area?

A Hang on. The, the Victorian coastal waters - - -

Q81 Yes.

A - - - they, goes through here - - -

Q82 Yes.

A - - - to this part, and they are responsible for the high seas - - -

Q83 O.K.

A - - - in the area right out here.

Q84 Yeah.

A We have the responsibility for the, the coastal area.

Q85 Right.

A I've got a map of it. I'll show you. They're the coastal waters.

Q86 Yeah.

A And these ones down here are on the New South Wales coast - - -

Q87 Oh, O.K.

A - - - they're done from Sydney.

Q88 Yeah.

A These ones through here - - -

Q89 Yes.

A - - - are done by Victoria - - -

Q90 Victoria, O.K.

A - - - at that point, but at 38 south, which is just there - - -

Q91 Yes.

A - - - for the purpose of the customised forecasting service - - -

Q92 Yeah, O.K.

A - - - which even includes this, this is high seas - - -

Q93 So - - -

A - - - in there.

Q94 Yes it does, yeah.

A We try and write something that's just what the - - -

Q95

A - - - yacht, yachting people want - - -

Q96 Yeah.

A - - - for the, the race beyond there.

Q97 O.K.

A And - - -

Q98 Yeah.

A So, yeah.

Q99 Right. No, that's, that's cleared that up. No problems at all. Well now let's, let's look on the 27th.

A Right. Yeah.

Q100 And what can you tell me, what transpired on the 27th?
We go on a bit further - - -

A Well - - -

Q100 - - - and it, it appears to be intensifying.

A It has, yeah, there from 992 hectopascals to 988 on these analyses. These are working analyses, they're not - - -

Q101 Yes.

A - - - ones that have been done after the event and tried, these were the ones done at the time.

Q102 Right.

A And these were what the forecasters on the desk here, on our 7th floor, were working on at the time.

Q103 Right.

A And these are the, the, the, the working analyses that, that were being used at the time and the forecasters on duty had decided that the centre of the low had dropped from 92 to 988 - - -

Q104 Yes.

A - - - hectopascals, and there may have even been a suggestion of a, of a double centre to it. But it was getting a lot more organisation now in terms of having a cyclonic rotation around the low and, and it's now got, got almost a continuous, where we had just two wind streams basically, the north easterly and the west/south westerly, or south westerly, we now have more of the westerly component going through the area

south of Gabo Island, which is a sign that the low is spinning up a little more.

Q105 O.K. Well can we just, we'll just stop there for a moment.

A Mmm.

Q106 Now getting to one of the questions that we'd like to ask you in particular is that, can you tell me how your rostered crew are set up for the 25th and 26th?

A (NO AUDIBLE REPLY)

Q107 Do you have a rostered crew set aside to work on the -
- -

A Not dedicated to this purpose, no.

Q108 O.K.

A It's just that, but we have 24 hour coverage of people as a matter of routine for the safety of life and property, we, we provide a 24 hour service from Hobart, as we do from Melbourne and from Sydney.

Q109 Right. How many, how many forecasters would you have on on those days, the 25th and 26th?

A It depends on the time of day. There's only one on during the night from 8.00pm at night until 4.00am in the morning.

Q110 Right.

A But there are two from 4.00am onwards and three from, there's parts of the middle of the day, you know. But we have rosters of five senior officer grade C shift supervisor people and we have a roster of 4 P.O.2, professional officer grade 2 supporting forecasters.

Q111 Mmm.

A The shift supervisor's cover 24 hours a day continuously, no gaps, and the, and the, the, the, the routine forecasting staff, the P.O.2's, provide, not a 24 hour coverage, but they, they overlap in the middle of the day.

Q112 Right. Would you be able to provide us with a copy of he roster for those - - -

A Certainly.

Q112 - - - for who was on and - - -

A Yeah.

Q112 - - - and the hours of, of their, their working - - -

A Yes.

Q112 - - - day?

A Yeah.

Q113 Now they would have been monitoring this?

A Mmm.

Q114 The, the activity, and in fact watching it go, the barometer drop to 988?

A Yeah.

Q115 And that would indicate that there is still some further activity brewing there - - -

A Yes.

Q115 - - - and it's quite severe?

A Yes. The, the pressures are rising to the rear of, of the developing storm force winds, but the, they are, the pressures are falling near the centre of the low and, and, and east of there. Bearing in mind that the

central pressure hasn't dropped very much at all, really, from 992 to 988, but the actual, the circulation, the, the, the change has really, has been as much, the, the change, the, the circulation round the low is getting organised, well - - -

Q116 What do you mean by, organised?

A Instead of being sort of a little bit this way and a little bit that way and nothing much in the middle as it was, it's actually starting to, to circulate in a more cyclonic fashion. It's - - -

Q117 So it'd be, it would be in fact intensifying in a particular area rather than spread out?

A Um - - -

Q118 Would it, what I'm saying is it's the, the, the eye of the storm is, is probably building in a central area - - -

A Yeah.

Q118 - - - more than in fact opening out over a large area which would indicate - - -

A What, what did happen was that the winds were confined to a very narrow strip through here, which is - - -

Q119 And you're indicating through Bass Strait?

A Off, off, yeah, well not off, not through Bass Strait so much, but off the, the Gippsland coast of Victoria and - - -

Q120 Mmm.

A - - - south of Gabo Island and, and on the south coast of New South Wales as well, there was a, a, you know,

towards 50 knot winds. Mean speed, 10 minute mean speed - - -

Q121 Yeah.

A - - - with 50 knot winds in that area. Whereas down in here in, in Tasmania, even including Flinders Island, we don't see winds, you know, that's, Flinders Island is at 40 south - - -

Q122 Mmm.

A - - - and we didn't predict the winds down there to be that strong and nor were they. Because this is all tied up here in this circulation of the low and, and where I talk about it as being organised, you, that in order, order for the winds to, to build up momentum, they need a fairly straight stretch of - - -

Q123 Yeah.

A - - - of flow to, to accelerate. You, there's so - - -

Q124 Well is - - -

A - - - much curvature going on here that the, the, the wind velocity is, is light.

Q125 Right. But in fact that's what's happened, isn't it?

A Mmm.

Q126 That the, that the build up over the, the, the north eastern Tasmanian region - - -

A Yes.

Q126 - - - in fact has in fact caused extremely strong winds - - -

A Mmm.

Q126 - - - to come across into that East Gippsland area which we're looking at?

A Yes.

Q127 Now would, would you, would you look at that and say that that's going to occur in that area?

A (NO AUDIBLE REPLY)

Q128 Would you be able to - - -

A Well, what we - - -

Q128 - - - predict - - -

A - - - we did.

Q128 - - - that that's - - -

A This, this is, what is it? At 6.00am on the 27th, by which time the storm force wind warning for this area here had been out for 15 hours, something like that.

Q129 Right. Were you contacted at any time at home or by the, by the duty officers on, on watch at the time in regards to what may be occurring?

A I phoned the office here - - -

Q130 Mmm.

A I, I, I phoned the office here on Christmas evening and discussed the situation with them.

Q131 Well what did you say to them?

A I was just interested to know how the situation was developing. I discussed it with the senior forecaster, asked what forecasts were out at the time, and what warnings were out, and satisfied myself that the situation was completely under control as far as the grasp of the meteorological situation was concerned.

Q132 Right. Did you - - -

A That was about, round about, it was almost dark, I suppose when that was happening. It was, must have been nearly 9.00pm on, on Christmas evening that I did that.

Q133 Did you discuss at any time with those officers, that they should impress - - -

A It was the shift supervisor.

Q134 With the shift supervisor - - -

A Mmm.

Q134 - - - that, that as a result of what was happening here and the ensuing vessels coming down the coast - - -

A Mmm.

Q134 - - - approaching into all this area here, was there any discussion at all that you felt that perhaps somebody should contact the racing committee here in, in Hobart and inform them, rather than just issue storm warnings?

A It, it didn't occur to me that there was any need to do that. The, the point is that we were customising a forecast for an area starting at 38 south. The area of Tasmanian coastal waters, or the area of high seas immediately adjacent to those, those, those coastal waters, were not subject to the storm force winds. They were north of 38 south.

Q135 Mmm.

A And even onto the South Coast of New South Wales.

Q136 When we go back and have a look at this map 1, that the Landfile - - -

A Mmm.

Q136 - - - Consultancy produced, at this particular time on the 27th of December, and it shows the yachts basically in an area south of Gabo Island, or, correction, south east in, in a 60 mile diameter circle - - -

A Mmm.

Q136 - - - which was strongly affected by these 55 knot mean winds - - -

A Yeah, yeah.

Q136 - - - what were you experiencing on, at home that made you think that you should contact the weather bureau here and ask them some questions about perhaps what was happening and, were you generally concerned yourself that maybe something might be happening as a, as a result of perhaps looking out of your window or listening to reports?

A At the time there were thunderstorms occurring, visible, yeah.

Q137 So knowing that the, the, there was a Sydney to Hobart Yacht Race and you being - - -

A Mmm.

Q137 - - - the regional manager, and the thunderstorms were a concern, do you normally, would you normally in your, your operation, contact the duty forecasters and, and find out what's going on and just to check, or what,

what made you think that you would want to contact them and, and check on how things are going?

A One was that the supervising meteorologist who normally holds the job, was away overseas and, and secondly, the thunderstorms were prolonged, seeming to be not moving, and I was aware of those sort of thunderstorms producing flash floods in, in past circumstances.

Q138 So you felt it was your duty to contact them and, and just make sure that everything was O.K?

A Yeah.

Q139 That there was nothing unusual happening, perhaps? I don't know, I'm asking you, what would you, you know, what would bring you to want to contact them? Is it, is it your duty normally to do that sort of thing?

A Bearing in mind that it was over the Christmas period, and, you know, there was not, you know, the normal contact with, with the holiday period and so on, I, I just took it on myself - - -

Q140 Right.

A - - - to phone the office. I also phoned the automatic phone service to see what sort of service was coming out on the recorded telephone messages too.

Q141 Right. And was that, that information, even on, on the telephone services, was that the same as what was being relayed in the, in the, well it wouldn't be, in the, in the - - -

A

Q141 - - - storm warnings? Was that sort of - - -

A But that's the point. The, this storm warning would not have been on - - -

Q142 O.K.

A - - - the coastal waters forecast for Tasmania - - -

Q143 Right. It - - -

A - - - it, it doesn't apply to - - -

Q144 Right.

A - - - to Tasmania.

Q145 O.K. So with that and knowing that there was strong activity in this - - -

A Mmm.

Q146 - - - area off Gabo Island, was that discussed?

A Not in the phone call, no.

Q147 Not in the phone call.

A Hang on this is at, that's, you see I phoned up on, on the 25th - - -

Q148 Yeah.

A This is nearly, this is 1900 U-T-C on the 26th - - -

Q149 Yeah.

A - - - that's, that's 6 o'clock in the morning on - - -

Q150 Yeah.

A - - - on the day after Boxing Day.

Q151 Right. But not much is happening. It's not moving, but the winds are building, so - - -

A Yeah.

Q151 - - - you know, so the, I suppose from the 26th to the 27th it's still, if we go onto the 27th, it still hasn't - - -

A Well this is, this is - - -

Q152 Oh, this is - - -

A - - - 6.00am on the - - -

Q153 On the - - -

A 'Cause that's universal - - -

Q154 Yes.

A - - - time, or - - -

Q155 Yeah.

A - - - Greenwich Mean Time.

Q156 Yeah.

A That's 1900 U-T-C which - - -

Q157 Yeah, so - - -

A - - - is 6.00am local time - - -

Q158 Yes.

A - - - in daylight saving - - -

Q159 O.K.

A - - - on the 27th. On - - -

Q160 Right.

A - - - on, this is just before the, the yachts started to experience at 9.00am that morning, winds approaching 50 knots mean speed.

Q161 Right.

A Mmm.

Q162 O.K. If this was, if this, now we'll just go back onto this slightly. If this has being experienced here and you can see that this is going, this is the fact, do you think it would be necessary for the duty officer on time, the senior officer at the time, would it be an

idea for him, do you think, to contact maybe the race, race directors and say, Look, this is going to happen, or this is happening? Do you feel that maybe some more information should have been relayed to the - - -

A But, but it was already in the, what we issued to the Cruising Yacht Club. We, we predicted - - -

Q163 Right.

A - - - mean speeds of - - -

Q164 Yeah.

A - - - 55 knots.

Q165 O.K. No, that's fine, I'm just - - -

A It was a storm force wind.

Q166 Yeah.

A We don't normally carry out the liaison, we don't carry out the liaison with the Cruising Yacht Club of Australia.

Q167 Right.

A And in fact the Royal Yacht Club of Tasmania is more or less in a reception mode as far as the race is concerned, not organising it in any active way.

Q168 Yeah.

A And I have in the past tried to relate to the Royal Yacht Club of Tasmania in, in sending a copy of my plans for the race to them, and more or less had the response that it's all being organised from Sydney, thanks very much, but you know, we don't organise it down - - -

Q169 Yeah.

A - - - this end.

Q170 Are you aware that over the last number of years, that the racing committee sets up here in Tasmania?

A What - - -

Q171 After - - -

A - - - as after - - -

Q172 After the start - - -

A - - - the start?

Q173 - - - of the race?

A Yeah, they, they move down here, yeah.

Q174 Yeah. And it's all organised then - - -

A Mmm.

Q174 - - - so all the, any event is organised, or any decision making - - -

A Mmm.

Q174 - - - is then taken from here in Hobart.

A Right. No.

Q175 So are you aware of that?

A No, I wasn't, no.

Q176 O.K. Have you got any questions you want to ask?

DETECTIVE SENIOR CONSTABLE GRAY

Is that all the questions off there, they've been asked?

SENIOR CONSTABLE UPSTON

Q177 No, I haven't asked - - -

DETECTIVE SENIOR CONSTABLE GRAY

Well, just

SENIOR CONSTABLE UPSTON

Q178 - - - those O.K. The question that we'd like to ask is, did the Bureau of Meteorology explain in any way the storm activity which struck Hobart on the 24th and 25th of December?

A Mmm. Sorry, what was it again?

Q179 This is a question, I'll show you this, this is the letter which I believe you do have a, a copy of, from Mr Harrup. And question here, question 2 is, Did the Bureau of Meteorology explain in any way the storm activity which struck Hobart on the 24th and 25th of December? I understand that there was some, a fair amount of storm activity then. Was that portrayed in any way of - - -

A Sure was, yes.

Q180 O.K. Now are you aware of a program on SBS called, Weather Watch?

A If you're referring to the satellite pictures, I can give you a copy of those.

Q181 O.K. Was that explained in any detail?

A Oh, what - - -

Q182 On, on weather, on the, to the normal, on the normal forecasting channels, frequencies, or - - -

A I've got here the copies of those that were on SBS at the time.

Q183 Oh, good. O.K. Would we be able to get a copy of these?

A Yeah, oh, they're for you - - -

Q184 Oh, O.K.

A - - - those ones.

Q185 Oh, good, thank you.

A And it also shows the rainfall that occurred at the time.

Q186 Right.

A This is on Christmas Eve, the, the ones around Hobart were very localised, the rainfall was in a line from Hobart down to Port Arthur, a narrow band of precipitation. The rainfall got up to about, a bit over 10 millimetres and the, there was some other falls around, but they were less than 5 millimetres mostly in the north east between the Tamar River and Scottsdale and down to Launceston and also in the north west between Smithton and Erriba and down to Liawenee on the central plateau. On the next day there was more widespread thunderstorm activity, again in the south east of, of Tasmania and there was some more up in the north - (Tape Beeping) - but again the wind, the rainfall wasn't excessive, there were some falls of more than 25 millimetres in localised places, but overall, generally speaking, the rainfall was either zero or less than 5 millimetres.

Q187 Right.

A On the next day, once the cyclone, cyclonic wind circulation to the east of Tasmania had moved east, the clouds wrapping round that low produced heavier rainfall and it was wide throughout Tasmania and the

rainfall was at least 25 millimetres and in some places more than 50 millimetres, particularly the south east and the west coast and the central plateau and the north east highlands of Tasmania.

Q188 Right. And this I think was portrayed throughout the normal channels?

A (NO AUDIBLE REPLY)

Q189 You would, you would, this was forecast right through normal channels?

A Yeah, yeah - - -

Q190 You - - -

A - - - well that, that's just showing if we - - -

Q191 Yeah.

A - - - we're talking about thunderstorms - - -

Q192 Yeah.

A - - - I'm just trying to mention the rainfall - - -

Q193 Right.

A - - - because in the early stages - - -

Q194 Yeah.

A - - - any rain that occurred was associated with thunderstorm activity and it shows how limited it was in the area to start with on Christmas Eve, on Christmas Day it was more widespread and the thunderstorms that, that I could see to the north west of Howrah can, can be seen as having some effect to the, in a line that extends all the way down the Derwent Valley, but the heaviest rain is just on the eastern shore and down towards the Tasman Peninsular.

Q195 O.K. Hugh, the, for the purposes of changing tapes, I'll suspend the interview for a short time. The time on my watch is now 3.12pm. This interview is now suspended for a tape change.

INTERVIEW SUSPENDED

INTERVIEW RESUMED

SENIOR CONSTABLE UPSTON

Q196 The time on my watch is now 3.28pm, this interview is now resumed between Hutchinson and Upston. Hugh, prior to having a, a break from the, the record that we were discussing and for the tape change, we were discussing some questions that were put forward in relation to a storm or a, a warnings that were given in, in the Tasmanian region, and I think you answered that sufficiently. Senior Constable Gray, is there anything that you would like to add?

DETECTIVE SENIOR CONSTABLE GRAY

Q197 Yeah, just a couple of things. I'll start on this first, Hugh. In relation to the high seas warnings. Now they were, they are ordinarily relayed by a different source, are they?

A Relayed?

Q198 As opposed to coast, as opposed to coastal reports which are given by Sydney - - -

A They're, they're broadcast by Sydney V.I.S. and V.I.N.

Q199 Right.

A But there are a lot of other means of, of or there are other means of communicating as well.

Q200 O.K. Well to go to this map here, which is map 2 in the, the race review, we see that the front is formed down here.

A But that's a spiral - - -

Q201 Or forming - - -

A That's a spiral cloud band circulating into the centre of the low. That, that's - - -

Q202 O.K.

A - - - a, you know, commonly how we actually identify where the centre of the low is, yes.

Q203 Right. Now that is, would come under the, the high seas forecast?

A That, that - - -

Q204 As opposed to coastal waters?

A That's out over the high seas, yes.

Q205 O.K. So for the race, for the yachts in the race, they would need to really think about getting the high seas forecast as well as their normal coastal forecast?

A Yes.

Q206 O.K. So is it the case that for this particular yacht race that the Bureau could in fact include in their usual coastal forecasts, this high seas forecast as well?

A The, what I've called the customised forecast for the Sydney - - -

Q207 Yeah.

A - - - to Hobart Yacht Race, tries to take into account those things that are in the coastal waters and most of

the yachts are in coastal waters for most of the time.
But there's a smaller percentage that - - -

Q208 Yes.

A - - - that are outside and particularly in the area
from about 38 south to about 40 south, there's coastal
waters that go to 60 nautical miles, miles seaward that
don't quite cover the, the course of the yacht race.
So - - -

Q209 O.K. Do you think it would be prudent in, in the
future to possibly include that with the package which
is provided for the C.Y.C.A?

A Personally I think it, I, I don't think so. I, I think
- - -

Q210 Right.

A - - - the best thing is to get the Sydney to Hobart
Yacht Race right - - -

Q211 Mmm.

A - - - in, in the detail that's required, because it,
there's a, the information overload too. If you, if
you've got too much to communicate, if, if we're using
- - -

Q212 Yeah.

A - - - the radio relay vessel to communicate it via
radio, it's got to be broad, you know, read out over
the, over a radio and, and in this case, at a time when
everybody was using their time to best effect to, for
safety purposes and you don't want a lot of information
that you have to sit and listen to while you've got

other things to do. I think it's best if we have a very focused, perhaps slightly changed, Sydney to Hobart Yacht Race forecast format - - -

Q213 Right.

A - - - but I believe that's the best way to deliver the information and that yachtsmen ought to monitor the issue of warnings, during the race in particular, certainly the, the customised forecasts, but they should also, when there, there is a, a strong wind warning of more than 25 knots, a gale warning more than 34 knots, and a storm warning more than 48 knots, when one of those warnings is operating, and particularly if the, it's the higher of the, the range, they should be listening for the next warning all the time to make sure that things haven't changed, got a little bit worse, or the low's moved slightly in a different direction and may be affecting now a different, slightly different area - - -

Q214 Yeah.

A - - - in the future than was affected in the past. And in this particular case, the, the strongest of the winds was off the New South Wales coast and south of the latitude of Gabo Island. And, and then the winds moderated rapidly south of, of about 40 south. So positioning of the low, in this case it, it behaved in a fairly consistent curve like path, moving towards the north eastern and, and then south east as it went past Gabo Island. But lows can remain stationary for a

time, they can move back again and, and so on, in, in, in some of the more complicated synoptic situations.

Q215 O.K. Are you aware if the C.Y.C.A committee or the Royal Yacht Club, Tasmania, made any contact with your supervisors here around the 26th, 27th - - -

A I believe - - -

Q215 - - - offhand?

A I believe not.

Q216 O.K. Under what circumstances was, would you, as director, become involved and take it upon yourself to say, get involved in, in warning a yacht club here, for example?

A Independent, sort of a me to, to the individual yacht club?

Q217 Yes, yeah.

A Um - - -

Q218 What would, what would - - -

A Almost never.

Q218 - - - prompt you to do something - - -

A Almost never.

Q219 What would you, but what system - - -

A Because we couldn't keep - - -

Q219 - - - could you - - -

A We couldn't keep that service up 24 hours a day, 7 days a week to actually take it upon ourselves to always phone - - -

Q220 Mmm.

A - - - a particular yacht club. We don't know sometimes some of them don't operate certain days, maybe weekends and public holidays, things like that.

Q221 Sydney to Hobart.

A Oh, it's - - -

Q222 For example, 26th to the 29th - - -

A Right.

Q222 - - - of December.

A Right.

Q223 Christmas period, you're not working obviously - - -

A No.

Q223 - - - and there's a, a crew here and there's a supervisor, there's forecasters here.

A Shift supervisor, yes.

Q224 Shift supervisor?

A Yeah.

Q225 Under what circumstances during that period would you make inquiries if you became aware of something, under what circumstances would you take it upon yourself to either get one of your supervisors to contact this organising yacht club here - - -

A Mmm.

Q225 - - - or yourself, in fact? Would you ever do that? Would you consider that?

A I, I'm, I'm quite prepared to take phone calls at home about the weather situation I, and would be available most times at home. So I, there's no reason why I wouldn't be prepared to have that contact. I, I

might say, once we used to have a, a roster of senior officers who called the office regularly on weekends and public holidays for a consultation with the duty forecaster, but that was in the days before we had senior officer grade C, shift supervisors round the clock. And I was only a senior officer grade C or the equivalent when I was doing that function with P.O.2 type people who are, are on the roster. We now have quite a high, we, we've got senior meteorologists covering the, the, the office 24 hours a day, 7 days a week, who, that is what they are, that, that is their duty to, to, to take on that responsibility. If anybody was going to provide an alerting system to yacht clubs during the yachting season of any kind, or to the Sydney to Hobart yacht, organisers at the Royal Yacht Club of Tasmania, it, it would be better if it was formally the supervising meteorologist in that, on my days off I could want to go away somewhere - - -

Q226 Yes, certainly.

A - - - and it might fall down for, if I was the person. Whereas these people are rostered, this is what they're, they're paid for. They have days off at another time and so on - - -

Q227 O.K.

A - - -

Q228 So it's quite reasonable then, your senior forecaster, your supervisor here, could in fact take it upon himself, or herself, to contact the yacht club - - -

A But - - -

Q228 - - - if he or she felt - - -

A Yes.

Q228 - - - it was necessary?

A Yes. And I think, as was the case with the Melbourne to Hobart and the Melbourne to Devonport Yacht Races, they were put off for a day. With hindsight it would have been good if the Sydney to Hobart Yacht Race had been put off for a day, the start of it. The, the reason why the Melbourne to Hobart Yacht Race was postponed was more because you couldn't get out the heads rather than - - -

Q229 Yes.

A It was a, a management decision taken by the Bureau in, in stopping the race. I'm not sure that the race organisers would want us to have, sure, we can advise, but we can't, we can't - - -

A Yeah.

Q229 - - - stop it.

SENIOR CONSTABLE UPSTON

Q230 Was, was that the case, that the, that the, the Bureau of Meteorology contacted the organisers of the, the Melbourne to Stanley Race to advise them to stop the race?

A I'm not sure.

DETECTIVE SENIOR CONSTABLE GRAY

Q231 Postpone it.

SENIOR CONSTABLE UPSTON

Q232 To postpone the race?

A I, I'm not sure. You'd have to ask the, the person in Victoria who was involved in that I don't know, no.

Q233 O.K.

DETECTIVE SENIOR CONSTABLE GRAY

Q234 In hindsight we just discussed that it may have been important to have postponed the start of the Sydney to Hobart to say 2.00pm on the 27th.

A Yes.

Q235 Where in fact would all this weather have gone had the race had started - - -

A Oh, it was moving out, it was - - -

Q236 It was moving out to sea?

A It was totally different in 24 hours time.

Q237 Right.

A Moderated greatly.

Q238 Do you, from your experience, feel that had the race have started some 24 hours later, as opposed to the 26th of December, do you think that the conditions that they experienced would have been there on the, a day later?

A Well by 9.00am on the 28th - - -

Q239 Yeah.

A - - - the strongest wind plotted on this chart is 35 knots at Gabo Island. It was 30 knots by noon, I haven't got the next one. You can see it just there.

Q240 So you're saying, yes?

A Yes.

Q241 Yeah. Have you had the opportunity to read Mr Badham's report, the weather package that he provides for a fee to certain yachts in the race?

A No, I haven't.

Q242 You've not seen that document?

A No.

Q243 I won't ask you any questions about it then. That's all I've got.

SENIOR CONSTABLE UPSTON

Q244 O.K. I think that that just about wraps it up, Hugh. Is there anything that you would now like to add that you feel would be of benefit for information for the Coroner, outside what we've spoken about today, and also in the, the report that's being issued by the Bureau of Meteorology?

A Could you say that again, I'm sorry?

Q245 Is there anything that you feel that you can add to us now - - -

A Yeah.

Q245 - - - prior to concluding the interview - - -

A Right.

Q245 - - - that you feel would be of interest to the Coroner, apart from already what has been said or what will be issued in the report that you have already seen that - - -

A No, I, I think, I think the preliminary report is, is quite good. Just that we go into more detail about the wind field that we believe prevailed at the time, using the Laps model of which I think I showed you the, the, started to show you the analyses from it which it, I could show you those again if you like. I don't normally but I got sidetracked when I was - - -

Q246 Yeah - - -

A - - - doing that.

Q246 - - - well if you mind just bringing those to hand.

A Right. Well this is, these are the analyses, not the predictions, but it shows you - - -

Q247 Yeah.

A - - - how the model's thinking, if you like, and it starts off at 0-0-U-T-C on the 24th, which is 11.00am in the morning on, on Christmas Eve, and there's a broad area of, of, of almost no pressure gradient between a north east to northerly airflow east of Tasmania and on the New South Wales coast, and a, a southerly flow coming into the area of the Great Australian Bight which looks to be fairly limited in its fetch because of the narrowness of the ridge and a, an extensive low pressure system that's in fact what is going to cause the, the development over Tasmania and to the north east of Tasmania in, some days later. And that trough at 12 hours later has moved on. There's been some tendency for the, for the low to, to bulge towards the north east, but still we have this, what we

call a coll area, that is high pressure on two sides and, and troughs of low pressure on two others. And that still, that coll area is still to the west of Tasmania with light pressure gradients there and nothing at this stage on the analysis at all that would indicate any danger to yachts at 12Z or at, that's nearly midnight on the 24th of December. That's on, on Christmas Eve, nearly midnight. There's still nothing there at that stage. This is the model that predicted the, the - - -

Q248 This is, this is the Laps model though, isn't it?

A Yes.

Q249 Right.

A And, and then there's the first sign of some wind change, forming over Western Tasmania at 11.00am on Christmas Day, between a south west and a northerly wind flow, and there's still a ridge of high pressure up towards Sydney, but still nothing that would predict oh, no, well this is an analysis, not a prediction, but - - -

Q250 Mmm.

A - - - there's nothing on the analysis that shows storm force winds anywhere near Tasmania. Nothing on the chart at all. So then you come up to nearly midnight on, on Christmas Day, and there's now a, a more significant, larger diameter, if you like to call it that, system developing round about longitude 140 east and west of Tasmania, and it's now becoming a fairly

significant change between northerlies and, and southerlies, but still west of Tasmania, but still not predicting, not analysing any winds of storm force proportions, not even gale force, I would suggest. So then the next one is 11.00am on the 26th, and there's now a low pressure system starting to be drawn on the chart nearer Tasmania, but still some distance to the south. There's quite a substantial sheer zone between the northerlies and what are south westerlies now behind the trough line. The trough line is near to Melbourne and near the west coast of Tasmania at 11.00am on the 26th, and the winds off the New South Wales coast are, are, well the isobars are largely north/south. Then by nearly midnight on the 26th, there's a low been analysed over north eastern Tasmania and we've more or less discussed this in the early part of the interview where we're actually analysing this too on our local charts. And the low is in fact over the north east corner of Tasmania. But it, the winds at that stage, that's at midnight on the 26th, still don't look all that strong. They, they are certainly strong in, in terms of being more than 25 knots. But they would not be storm force at that time, even to the west of Tasmania, I would suggest by the look of that, the analysis. And then we've got, on the 27th, at 11.00am, this time the leading yachts were actually down, getting down towards the low pressure centre and at that time the winds had increased towards 50 knots

mean speed and, so I, I would say from that, and I think anyone would, would agree that there's not much evidence in the analyses of the, of the low moving in from the west or anything. It actually developed, what we call, in situ, in, in place, over the north east part of Tasmania and spun up the, the wind field. Some people might even say the wind field spun up the low in fact, in terms of the cause and effect. But it, there was this very strong wind field that came through Bass Strait towards the area to the east of Bass Strait and off the south coast of New South Wales where the yachts encountered main speeds of, 10 minute main speeds of 50 knots.

Q251 Right. But that, with those, with those wind speeds, there's good indicators, is there not, available to the weather bureau along, along that track? Kingfish B - -
-

A Oh, yeah, yeah.

Q252 Wilsons Promontory?

A Yes.

Q253 Various other - - -

A Yeah.

Q253 - - - different things - - -

A Yes.

Q253 - - - of other places?

A Yeah, we issued a storm warning around about mid day on, on Boxing Day, yeah.

Q254 Right. Now - - -

A Storm force wind warning, 48 knots mean speed and greater.

Q255 Right. Now you've, this, this model here, the Laps model that you've showed us here in the predictions, in fact that's not the only model that's available to the weather - - -

A Oh, no.

Q255 - - - bureau, is it?

A No.

Q256 In fact we've got a attachment 3 to the preliminary report which, which shows a number of, of models.

A Mmm.

Q257 Why in particular was, was the Laps model produced and was that adhered to more than anything else, any other models that were used?

A It was in the issue of the storm force wind warning, it's, it was a brilliant decision by forecasters in the Victorian office to go entirely with the output from the Laps model, otherwise the strength of the winds that were predicted would have been, would have been less than was forecast in that storm force wind warning. And that, it, and that, you'll see when you get the, the, the report to the Coroner that's being prepared, that from the climatology of winds in Bass Strait, that the winds that occurred were of the order of the strongest winds that have been observed at the various reporting points, but not greatly and in some cases not, not greater than the highest winds ever

recorded at those stations. But it was of, in that range. In decades of measurement that was the sort of winds that, the strongest winds that, that could be encountered in that area.

Q258 Is there an American model that, that's been produced that, that has shown the, this pressure system developing well and truly before the Laps model was able to pick it up?

A I, I'm not aware of it if there was, yeah.

Q259 Was there any other models that, that, from what this, you produced here, that, that perhaps - - -

A As I understand it, the Laps was the only one that we have access to. We have access to the aviation version of the American model, but I'm not aware that that predicted this earlier. I believe the Laps model was the indicator that, that, that influenced the decision to issue a storm force wind warning nearly 24 hours before the yachts encountered that - - -

Q260 O.K. then. All right, Hugh, I think that just about wraps it up. As I said, there's nothing else that you feel that you'd like to add to us, add for us?

A No, I don't think so.

Q261 From, from what we've spoken about today, or you feel that would assist us?

A (NO AUDIBLE REPLY)

Q262 Perhaps with, we've mentioned a couple of things about future races and the information - - -

A Yeah.

Q262 - - - that'd be supplied.

A Well I, I've done a draft of how the, the race ought to be organised in future which, I don't know whether that's any use to you.

Q263 I think it would be. Is that, is that going to part of the, the weather bureau's report? Or is that something - - -

A It, well it's only - - -

Q263 - - - that you - - -

A - - - my draft of how it should be - - -

Q264 Right.

A - - - and I've sent that to the, my counterpart in New South Wales who has prime carriage of that.

Q265 Yes.

A And I haven't heard back yet what he thinks of my draft, but you, you're welcome to have that - - -

Q266 Yeah.

A - - - that draft, if that's what you want.

Q267 O.K. No, that'd be very good. All right, Hugh, the time on my watch is now 3.50pm. This interview is now concluded.

INTERVIEW CONCLUDED