

DETECTIVE SENIOR CONSTABLE GRAY

Q1 It's an electronically recorded interview between Detective Senior Constable Stuart Gray and Mr Brett Gage at the Weather Bureau Headquarters on Wednesday, the 16th of February, 2000, in Sydney. The time by my watch is now 7.10am. For the purpose of the interview, Brett, could you please state your full name?

A Brett ..... Gage.

Q2 And your date of birth ?

A 6th of the 10th, 1967.

Q3 Your current address?

A Unit 6, number 34 Melrose Parade, Clovelly.

Q4 And your occupation?

A Meteorologist.

Q5 O.K. As I explained prior to the interview, Senior Constable Upston and myself are making inquiries in relation to the 1998 Sydney to Hobart Yacht Race and in particular your involvement with that race prior to the start and just after the start and in particular a fax which was forwarded to the C.Y.C.A. and other authorities just after the commencement of the race. Do you understand that?

A Yes.

Q6 O.K. Would you mind just explaining what your role is here at the Bureau of Meteorology?

A O.K. At the moment I'm an acting Senior Meteorologist and I'm also the Marine Weather Manager for the New South Wales region. With my role in the Sydney to

Hobart, I'm responsible for organising basically our whole structure, leading into the race, I, how we're doing our briefings, who, who will do the briefings, lots, we put into the forecast, while I'm part of that, we have a few people and I was organising new methods and techniques that we use for forecasts, the technical side and how we go about it and during, during that year Ken Batt and myself did the briefing on Boxing Day morning and after that we returned to the office and when the new run of the weather model came in we assisted Peter Dunder who was the supervising meteorologist that day to also to, to talk with him about the warnings that we we going to put out and also in contacting agencies after we put out the warning, so hopefully everybody knew all about our warnings.

Q7 So the warning that you're talking about was what exactly?

A Well, during, during the race briefing down the yacht club we had a gale warning out. When, after Ken and I returned and a, a new run of the numerical weather model came through at roughly 1.00pm and based on that information between Ken, Peter and I we decided to upgrade it to a storm warning and Peter also rung our Victorian office 'cause we have to be consistent with them and between Peter and the supervising meteorologist in Victoria, they jointly have the decision and they upgraded it, the warning to a storm warning.

Q8 And do you recall what time that was when you decided that it was a storm warning?

A That was roughly, we were looking at the model roughly around about 1.00, 1.30 and then to discuss it and talk to Victoria, I think the issue time, I've written it down here, O.K. Our, the storm warning issued by the New South Wales region was issued at 2.15pm and Victoria issued theirs at 1.58pm - - -

Q9 O.K.

A - - - they were consistent warnings.

Q10 All right. Now in relation to storm warning, what does that mean exactly?

A Storm warning means we're expecting storm force winds which are 48 knots or greater, 10 minute mean wind speeds.

Q11 O.K. Now I believe a fax was forwarded to the Cruising Yacht Club that afternoon. Do you recall that?

A That's right. Immediately, automatically through our computer system a fax of that, of the warnings issued were sent to the Young Endeavour, which is the relay vessel for the race. Also I contacted the Sydney to Hobart Media Centre - - -

Q12 Yes.

A - - - immediately ..... issued the warning I spoke to a contact there and I faxed through a copy of the warnings immediately after I'd, I'd finished talking to them on the phone.

Q13 And do you recall who you spoke to at the Media Centre?

A No, I can't recall the name, it, it was a female but I can't recall her name.

Q14 Did you give this person any instructions as far as passing that fax on to the necessary people?

A I certainly put across how, how important this warning was. I said, It's very scary, I said, I hope you distribute it widely, it is a very serious warning, I, we only issue them about twice a year, and we were all quite disturbed in here and I guess especially I also rang the Australian Maritime Safety Authority straight after and I, I really stressed to them how important this warning was because I felt they would have had a lot of staff off from holidays over the Christmas break, so I knew that they probably wouldn't have many people ready to go and I said to Andrew Burton, who was there, I said, You're, you're in for a very rough day tomorrow, there's going to be a, a very nasty day for you, I'd strongly recommend, I even strongly recommended him to get all his staff off holidays and, and be on full alert, which is something I normally never do. In, in the Bureau, basically we see our function as just passing on information, i.e. we tell them the strength of the winds or the weather and we don't normally try to tell other organisations how to run their business, that's not what we're here for. In this case I was so distressed that I did actually suggest to the Maritime Safety Authority that they,

they really step up and get ready for tomorrow for the next day.

Q15 O.K. You also sent one to the Eden Volunteer Coastal Patrol?

A That's correct. I, I contacted them. They already had copies of the warnings, they get it straight through their system but I also stressed to them how dangerous the next day was going to be and, and that I think there's going to be a lot of trouble with the fleet.

Q16 So is it normal for you to sort of ring these people other than, other than send faxes or - - -

A I - - -

Q16 - - - or did you feel on this occasion that it was very important that you actually have verbal contact with them?

A I felt it was very important to have verbal contacts. Routinely whenever we put out warnings in the Bureau, we don't, we don't have to contact anyone at all, apart from severe thunderstorm warnings but as far as coastal warnings go, we have our forecast distributed automatically by computer to these organisations and if they wish to discuss it generally it's up to them to call us. In this situation I was so concerned that I did contact these organisations.

Q17 O.K. Now you said that you attended the weather briefing?

A I, I did the briefing along with Ken Batt.

Q18 With Ken Batt, O.K.

A Yes.

Q19 And, and at that stage there was just a gale warning.  
Is that correct?

A That's correct.

Q20 And what's the difference between the, the gale warning  
and the storm warning?

A O.K. A gale warning is for 10 minute mean wind speed  
to be between 34 and 47 knots.

Q21 All right.

A And as I said before the storm warning is for 48 knots  
or greater.

Q22 All right. The storm warning is the highest, the  
highest maritime warning we can put out, apart from in  
the tropics where they put cyclone warnings but for our  
area that's the highest warning that can be put out.

Q23 Is, so far as the tropics is concerned, would that same  
warning, 48 knots and in excess of that be similar to  
a cyclone?

A Absolutely. A tropical cyclone warning starts at 34  
knots, so a storm warning is actually a higher grade  
than the start of a tropical cyclone warning.

Q24 All right. O.K. Was there any concern from yachtsmen  
when you gave the briefing or after?

A During the briefing most, during the briefing we were  
expecting a bit more of a southerly change rather than  
a westerly, and I expressed perhaps storm force gusts  
with this change. Some skippers were concerned about  
that. Most however felt that they weren't concerned

about gale force winds, quite a few said to me, Oh, we can, we can handle gale force winds.

Q25 All right.

A Yeah.

Q26 Did anybody from the Cruising Yacht Club Race Committee contact you in relation to that storm warning?

A Oh - - -

Q27 That you can recall?

A No, they didn't actually. In fact during that morning we were running late getting there, 'cause we were photocopying a whole lot of charts in here. Ken, Ken Batt gave a briefing to the race management over the phone. I was the first one to arrive down there at the club but in the meantime 'cause we were running late, Ken, Ken gave a briefing over the phone.

Q28 To someone from the race management?

A That's right, to the race director, yeah.

Q29 And that was prior to the issue of the thunderstorm?

A No, not a thunderstorm, this is, this is a, this is a, a storm warning is different to a thunderstorm warning.

Q30 O.K.

A A storm warning means storm force winds.

Q31 All right.

A Yeah.

Q32 So the conversation that Ken had with, with the race director was prior to the storm warning, as far as you recall?

A Yes, it was, that, that conversation would have been at about 8.00 or 8.30 in the morning.

Q33 All right.

A That was prior to even us giving the briefing - - -

Q34 Yes.

A - - - which we had a gale warning out in the briefing -  
- -

Q35 O.K.

A - - - so it was quite early in the morning.

Q36 Now so far as that, the weather which eventually hit the fleet, what's your views in relation to that, I mean - - -

A O.K. It certainly was a very severe low, it was probably one of the worst lows I've seen in this area. I, my impression, yeah, it was certainly a life, a life threatening low. For me when we put out a storm warning, basically to me that means any sort of vessel should get out of the area. I know that commercial shipping, as a rule, their companies won't allow any vessel to go into a storm warning area, in fact there was a, there was an oil tanker leaving Melbourne, received our storm warning and turned about and went back before it went into the area, so, for my mind, under no circumstances should any vessel enter an area where there's a storm warning, even a gale warning is very, to me, is, can be life threatening.

Q37 Yeah.



A I do, I do accept that professional racers can continue  
- - -

Q38 Mmm.

A - - - through gales but there's quite a bit of peril,  
I mean when you're sailing in gale force winds, it's  
quite possible to lose someone overboard or - - -

Q39 Mmm.

A - - - or for gear damage and to me a storm warning's  
just way, way too much for anyone to be out in.

Q40 Certainly the risks become a lot more grater?

A Yes.

Q41 That type of warning?

A Yeah.

SENIOR CONSTABLE UPSTON

Q42 Where did you get the information that the ship leaving  
Port Melbourne turned about?

A Basically just through hearsay, through my peers in the  
bureau. I can't, I can't be certain of that but I  
think, I think our staff down in head office might be  
able to clarify that, the people who wrote out a full  
report.

Q43 O.K.

A So I only know on hearsay, yeah.

Q44 When you rang the C.Y.C.A. and spoke to the person  
there, the, the female person. What sort of response  
did you get from that person? Was it, well, what sort  
of response did you get?

A I, I was trying to, I was trying to describe the warning over the phone, it soon became apparent that she wasn't really understanding what I was saying. I felt, to me she wasn't really someone who had a good knowledge of meteorology but perhaps she was just there to send on messages, I don't know, but, so I felt the best, the best thing to do was just to send the fax through so she could pass it on to, to whoever. My understanding was that that is only a media centre. I think the official relaying of the, the warning was through the Young Endeavour. However there are, all the normal radio channels where boats can receive our services they could have, they can also get the storm warning via all of those channels through fax and V.H.F. radio etc. I think the Media Centre was, I'm not sure but in my opinion is mainly more for journalists and, etc. to find out what's going on.

Q45 When you determine a storm warning or a warning of this magnitude, how soon do you relay the information to all the coast radio stations or people that are on the fax list?

A O.K. That's sent automatically by the computer. We have a long list of all the faxes for any, any organisations that are concerned, maritime and that's sent basically automatically, it would be with them, within a minute, say of us disseminating the warning.

Q46 Do you have any, any marine background apart from weather, do you sail or do you, do you do boating?

A Yes, I do. I sail on the harbour. I've raced competitively in dinghies for about 10 years in South Australia, which is where I come from and I've raced in about four or five national championships in, in dinghy classes though I'm not racing at present.

Q47 All right.

A Yeah.

Q48 Have you sailed at sea at all?

A I haven't done any deep ocean racing, no.

Q49 Coastal sailing at all?

A Yes, yes, I've done some coastal cruising.

Q50 All right.

A Yes.

Q51 Yes. And you felt that in your situation, you believe that under a storm warning you would certainly take shelter?

A Absolutely, absolutely. I'd have no hesitation, whether I was sailing in the coast or the ocean I would, I would avoid an area of storm warning at all costs. As I said, it's, it's even a higher grade warning than the start of a tropical cyclone warning, and I certainly wouldn't sail into a tropical cyclone.

DETECTIVE SENIOR CONSTABLE GRAY

Q52 No. How long have you been with the Bureau, Brett?

A 10 years.

Q53 O.K. No, I can't think of anything else? Are we able to take, to keep that document you've given us?

A Certainly, that's a copy I've made for you.

Q54 It's a copy, yeah, O.K. O.K. Have you anything further you'd like to add in relation to what happened in '98?

A I think I've covered it. I guess one thing I was surprised about was the media. I don't think the media covered the event at all accurately. In fact it was, I think it was probably 2 days after the event until someone in the media contacted us. There was, I did a, a front page story in the Sydney Morning Herald. To my knowledge that is the first, any coverage in the media that said exactly when we put out our warnings, until then the Bureau was basically, everyone was just saying the Bureau had no idea - - -

Q55 Mmm.

A - - - it's not true. We gave 20 hours lead time of a storm warning. In, in world meteorology, 6 to 12 hours notice of a storm warning is considered very satisfactory. We gave 20 hours. I feel that our staff did an excellent job, in fact it's probably one of the best maritime forecasts I've ever seen and I feel that we were very harshly done by in the media and in fact it's still continuing to this day, we're still being hounded by, by certain sections of the press and I, and I feel that the public hasn't really understood just how good a service we have provided. Having said that, I understand when you're racing people will take risks and I don't necessarily blame them either. Personally I, I would never sail into an area where there's a

storm warning whether I was racing or not but my meteorological knowledge is probably better than most peoples too so I, I understand exactly - - -

Q56 Mmm.

A - - - what's in store for you if there is a storm warning.

Q57 Do you think that, from your experience of these lows which develop around this period, December, January, in that region, I mean is that a sort of an every year event, there's going to be a low or a southerly buster?

A Usually there will be some bad event, that low was the worst I've seen in this area, I've worked in this region for 5 years, it's probably the worst I've seen, however there was one this year, which was almost as bad as that and a yacht, returning from the Sydney to Hobart got caught in that low and I, I put out a storm warning for that low as well and my, my ideas was that this low was nearly as bad as the one but it wasn't quite as bad as the one during the actual 1998 race. I, I believe the frequency of these lows are perhaps becoming a bit more these days, perhaps due to some sort of climate change. As I said, I've only been here 5 years, my first couple of years I didn't see lows of this strength in the area. They, we, probably put out, we get east coast lows in winter, as a common thing, probably twice a year on average I put out a storm, well, our office will put out a storm warning for an east coast low but they're more typical during the

months of June and July. I would say to have a low of this strength in January so, so far north, they, they do occur down at near 50 south but to have one this far north, in January, is quite unusual, yes, it, it certainly was a very severe event for, for this area in this time of year.

Q58 O.K.

SENIOR CONSTABLE UPSTON

Q59 Just, after issuing the storm warning, how did you feel personally when you, when you realised that the yachts were still continuing down the coast and going through into Bass Strait?

A I felt quite sickened actually. I, probably not as bad as Ken because Ken has a lot of personal ties with the club and he, he has a lot of friends in the race and I know that Ken was particularly disturbed. I myself said to Peter, when we looked at the model, I said to Peter, We have to put out a storm warning, 'cause the model did upgrade it quite a bit compared to the last run. I said to him, Peter, whether the model's right or wrong, we have to put it out because if, if we don't follow what the model says and it does happen, we'll be in trouble and I said, basically I'd been up since 4.00 in the morning, preparing for the briefing and I'd said to Peter, I said, Look, I'm not going to be able to go home and sleep unless you put this warning out - - -

Q60 Yeah.

A - - - and so, I knew that there's no way I could rest until the warning was put out and we contacted everyone that we did, and after we put the warnings out, and I made the phone calls, I felt, O.K. I had done as much as I could, whatever happens from here is sort of out of my hands but I went home feeling that I've done as much as I could and yes, I was watching the news and I, I knew it would be not until the next day when trouble would start but I knew, I knew there'd be trouble and my feelings were that I would be very surprised that if the race went through without at least one person having died through the event, so I did have a strong feeling that there would be death - - -

Q61 Mmm.

A - - - from this event.

Q62 And who, you mention a Peter, who was Peter?

A Peter was, Peter Dunder was the supervising meteorologist on the day. He was on shift in the forecasting centre and it was his responsibility for the warning, so it wasn't Ken and I, didn't have the authority on that day to issue the warning, it was all, it was Peter's responsibility though Peter, Ken and I all and the forecasters in Victoria, all took a part in the decision making process.

Q63 Mmm.

A It was a - - -

Q64 Being a sailor yourself and quite an advanced sailor by the sound of it, what's your thoughts on, on the

understanding of, of general weather by the yachting community as a whole, would you be able to give some sort of understanding on that?

A I, I think there's a big difference across the community. I, I think that there are some people who have excellent understanding of the weather and and I, I think there are others that have a very poor understanding. It's something that I'm hoping to develop more in our region here to be more active in going out lecturing, up and down the coasts, in the future, unfortunately we haven't had enough time to do that, we, we do as much as we can but my, my feeling is that there's a big difference in this event, in the Sydney to Hobart, there's obviously some of the best yachtsmen in the world in the event and you, you could never fault their understanding or of the weather or, or their sailing abilities, but my opinion is that in this race there is a big variation in ability and weather understanding. For example, I've got some feedback I, I sent out with the weather fax I sent out a questionnaire for the sailors to respond to our performance as a forecasting ability. I only got one questionnaire back out of all that was sent, which is probably understandable given that the time that they went through. This particular skipper said to me he was 20 kilometres south east of Gabo Island at the time when the, he knew about he warnings. He considered he wasn't in the warning areas. Now to me I find that



ridiculous because 20 kilometres south east of Gabo Island is right on the border of Victoria and, and New South Wales waters and two warning were current from, from each office, one is a coastal waters storm warning, the other is an ocean, we do a high seas forecast as well, so there was also a storm warning for the high seas and both of our regions had one out for each, so he only had to access one of four warnings and he should have known that he was in the area, he replied to me he thought he wasn't in the area and he was right in the middle of four warnings, so I, I find that and this was a skipper of a vessel, I find that quite disturbing. So my opinion is that there, there is a very big variation, it is hard, it's hard to cater for that when we speak to people, you know, you're very unsure of exactly how good is their weather knowledge .....

Q65 And you feel it's the Weather Bureau's position to, to enhance people's knowledge on weather?

A I believe we should play a role in there and something that I strive to do in my position as the Marine Weather Manager. However I, I think it is the responsibility of a skipper to ensure that he has, you know, well, especially in a race of, of this magnitude, he should have first class knowledge of weather and how to access the information. I put a lot of work prior to that race that year in upgrading our information lines. In the weather fax they had a long list of fax

numbers, the internet, some of the larger yachts have internet access, the radio channels, Ken investigated all that, he put a, in some of the yachting magazines he had articles on how the boats can access through radio. I had that also in the weather fax, so we ensured that that there was no way that a skipper should not know how to access our forecast. We were very diligent on that. As far as their weather skills go, I think that's something that the yachties should take upon themselves to learn and we're most open to, to them coming to us and asking our advice. We, we are basically, we haven't had time to provide a lot of education material, basically we're, we're busy just providing the forecasts, however, there are pamphlets around that we've sent out which explain what a storm force wind, what a gale force wind is. A big thing in this event was that the yachtsmen were claiming 80 knot winds etc. Now one, one thing we say is that 80, 80 knot gusts are possible. Our forecast was for 45 to 55 knot winds, but we stress that their 10 minute mean wind speeds and gusts can be 40 per cent greater than those wind speeds. Now that's something that, that is in a pamphlet that we've distributed up and down the coast, since I think, 1997. So there, there is information that we do distribute all along the coast to all the yacht clubs etc. So I think it's a joint thing, I think it's, it is good if the Bureau provides information but it's also the responsibilities of the

skippers to, to make sure they have enough weather knowledge and as a skipper of a boat, when I sail, I take it upon myself to be fully conversant with weather or with race information, yeah.

Q66 All right. O.K. What, well, how do you feel about if I told you that helicopters on the scene, that rescue helicopters were flying at the hover at 70 knots to maintain a, a constant position over a rescue for some period time - - -

A Yeah.

Q68 - - - longer than, than, than the 10 minute mean - - -

A 45 to 55.

Q68 - - - 45 to 55?

A O.K. I, I can believe that quite easily. Wind speeds increase logorhythmically with height and a, a helicopter, I would imagine, because the waves were fairly high for a start, he would have been at a reasonable height above the mean surface level of the ocean. Wind speeds do increase logorhythmically with height. It's quite conceivable that the height that the helicopter was at there were 70 knot mean winds.

Q67 If - - -

A .....

Q67 - - - if we were to say that some waves were experienced at around the 90 foot to 100 foot mark, some a little bit less, pardon me, and that that helicopters were still negotiating strong winds at lower altitudes up to 70 knots for constantly periods

in excess of, of 10, 10 minutes, would you then, and, and also taking into account that the, the size of the waves that were experienced, would you then suggest or could I then suggest to you that the winds were in fact far greater, the mean height, mean winds were far greater than 40, than 45 knots?

A Well, our warning at 45 to 55 knots - - -

Q68 Mmm.

A - - - now I, I think you're, I don't quite understand what you're saying here, to me, for a start, there weren't 99 to 100 foot waves out there, that, that's, if that has been claimed, that is an exaggeration. Now and also if you are saying to me that there are 90 to 100 foot waves, well, then the helicopter must have been at least 100 foot above sea level. I would have to check on that, on the logarithmic wind scale as to, say, a 55 knot mean wind at the ground, what would the wind speed be at 100 feet, so I can't say offhand. That, that is quite easy to check out though.

Q69 Mmm.

A Yes.

Q70 If I was to tell you that the Victorian Air Wing was conducting a rescue and hovering at 100 foot and his radar altimeter, which is a very accurate device to measure distance from any ground surface, be it water or land, and he then experienced the radar altimeter to rapidly decrease from a 100 feet to 90 feet and then back to 100 feet. What would you say to that?

A So you're saying a 10 foot change?

Q71 No, I'm saying there was a 90 foot change in the radar altimeter? Which would indicate - - -

A From - - -

Q71 - - - a 90 foot wave passed underneath the helicopter?

A That a 90 foot wave passed under the helicopter. I, I'd like to, I'd like to see confirmation to that.

Q72 Mmm.

A Yeah, I can't comment until I guess I could speak and, to the pilot, perhaps there was some turbulence the, the aircraft was not steady. I'm not saying that it wasn't - - -

Q73 Yeah.

A - - - I'd really, I really don't know, so, from, from wind speed versus wave height, nomograms, which we have here, I would not believe 90 to 100 foot waves - - -

Q74 Mmm.

A - - - no, I think that is an over exaggeration and these nomograms have, have been developed over decades, they, they were around decades ago and they're certainly well, well and truly tested. They don't, they don't tell any of this information. So for me as a meteorologist to forecast wave heights, I, I would be looking at the nomograms where we determine first the wind speed, then how long the wind's blowing for and how far, the distance of the sea or the fetch that that wind's been blowing over. Using this information you can calculate the wave height and to me that is the

only reliable method, I'm not saying what the pilot didn't see or whatever, he may, may be true, but for me as a meteorologist I would use the nomogram - - -

Q75 Mmm.

A - - - to, to determine wave height.

Q76 O.K.

A Yeah.

DETECTIVE SENIOR CONSTABLE GRAY

Q77 O.K. Nothing further you'd like to add?

A No, I think that's all.

Q78 O.K. Time by my watch now is 7.46am. This interview is concluded.

INTERVIEW CONCLUDED