INQUEST INTO THE DEATH OF DAVID IREDALE

1427/2006

OFFICE OF THE STATE CORONER OF NEW SOUTH WALES

CORAM HIS HONOUR, MAGISTRATE CARL MILOVANOVICH,
NEW SOUTH WALES DEPUTY STATE CORONER.

VENUE CORONERS COURT OF NEW SOUTH WALES SITTING AT PENRITH.

DATES 14TH APRIL 2009 TO 7TH MAY 2009.

****

APPEARANCES

Mr Jeremy Gormly SC with Dr Peggy Dwyer, instructed by the Crown Solicitor of New South Wales, assisting the Coroner.

Mr Michael Fordham of Counsel, instructed by T.G.Hartmann of Hartmann & Associates, Solicitors for Dr and Mrs Iredale (parents of David Iredale).

Mr Michael Windsor SC, instructed by P. Moncrieff, Solicitor from General Insurance Law Department for the Ambulance Service of New South Wales.

Mr Philip Biggins of Counsel, instructed by A. Kohn, Solicitor from Makinson D'Apice, Lawyers for the New South Wales Commissioner of Police.

Mr Campbell Bridge SC with Mr Jeremy Morris of Counsel, instructed by Dr Tim Channon, Solicitor of Hicksons Lawyers for Sydney Grammar School.

Mr Paresh N. Khandhar of Counsel and Kylie Day of Counsel, instructed by Ms Kathy Caruana, Solicitor for the Department of Environment and Climate Change (National Parks and Wildlife Service).

Ms Penelope Sibtain of Counsel, instructed by Adam Wilczek, Solicitor for the Department of the Arts, Sport and Recreation.

****

INTRODUCTION

1. The death of David Iredale was reported to the Office of the New South Wales State Coroner on the 20th December 2006 following the discovery of his remains on the proceeding day in the Jamison Valley, near Katoomba in the State of New South Wales.

2. David Iredale's death was a reportable death to the Coroner by virtue of Sections 12A and 13 of the Coroners Act 1980 for the following reasons:

   - his death was sudden and unexpected;
   - his death was one in which a medical practitioner was prohibited from issuing a death certificate;
   - the cause of his death was unknown; and
   - the manner of his death was unknown.

3. On the 20th December 2006 in accordance with the provisions of Section 48 of the Coroners Act 1980 an order in writing was issued to Dr Neil Langlois, Senior Staff Specialist, Institute of Clinical Pathology and Medical Research, Westmead Hospital, to conduct a post mortem examination on the body of David Iredale.

4. The formal documents tendered at this inquest and marked as Exhibit "1" comprise of:

   - Report of death to the Coroner (P.79A Form);
   - Certificate pronouncing life extinct;
   - A certificate from Associate Professor C.J. Griffiths AM, Specialist in Forensic Dentistry as to the identity of the deceased;
   - Final Post Mortem Report of Dr Langlois dated 4/12/2007; and
   - Report of Radmilla Mitrevski (BA Chemistry) of the Division of Analytical Laboratories, Lidcombe.

5. The role of the Coroner is to examine the evidence surrounding the circumstances of David Iredale's death and together with such forensic and other material make findings pursuant to Section 22 of the Coroners Act 1980 as to the identity of the deceased, the date and place of death and the manner and cause of death.

6. The Coroner has power pursuant to Section 22A of the Coroners Act 1980 to also make recommendations. Recommendations are ordinarily made on matters that may impact on public health and safety.

7. The role of the Coroner is not to apportion blame or make findings as to possible breaches of care or negligence. Accordingly, any commentary on the evidence that may identify shortcomings or system failures are made with a view to avoiding similar deaths in the future.

ESTABLISHED FACTS

8. On 10 December 2006, a few days after school broke up for the final time that year, a group of three teenage boys set out on a bushwalk in the Blue Mountains National Park. Those three boys, Kostas Brooks, Philip Chan and David Iredale, were students of Sydney Grammar School. This inquest concerns the tragic death of David Iredale, who became separated from his companions on 11 December 2006 and was last seen around midday on that date. After an extensive search effort, David's body was located by police on 19 December 2006.

Preparation for an earlier walk

9. Some time around May of 2006, David Iredale and Philip Chan began their planning for a three-day expedition in the Blue Mountains in June that would count towards their Duke of Edinburgh Award. The boys consulted with Mr Robert James (Jim) Forbes, a teacher at Sydney Grammar School who had, since 2002, assumed the role of Duke of Edinburgh Award Coordinator for the School. David and Philip chose a hike that Mr Forbes had taken with a group of students in September of 2005. It was a route that commenced at the Furber Steps in Katoomba, and involved a trek along the Mt Solitary Walking track to the Kedumba River, with an exit back at Katoomba around Echo Point. The original walk planned was to take three days, and two nights, with stops at the two campsites that Mr Forbes had utilised - Chinamen's Gully and Jamison Creek.

10. Several meetings took place in relation to that trip. Mr Forbes met with David Iredale on at least one occasion, at which time he gave David maps, a navigation data sheet and an "Excursion Risk Management Plan" that he had prepared for the September 2005 expedition. Mr Forbes approved the walk to be taken and discussed the participation of other students in the walk. Philip Chan met with David on more than one occasion to copy from maps that David had been given and to plan their trip. At some stage in June, David and Philip made a decision to cancel that walk, due to the cold weather in the Mountains in June (in part because of advice from Mr Forbes), and a feeling that they were under-prepared or rushed.

Preparation for the December walk

11. In the final term of school and probably in November 2006, David Iredale and Philip Chan again began to plan the Blue Mountains walk and resolved to embark upon it in December that year, so that it would be completed before they commenced year 12. They encouraged other students to participate and Kostas Brooks and Anthony Foster decided to join them.

12. A number of other students were approached to join in. Ronald Fung, Brian Ng and Ben Lim were boys who considered going, but withdrew during the planning phase. Although Anthony Foster had been committed to the walk, on the day before it commenced he notified his three companions that he could no longer join them.

13. Whether or not Mr Forbes was made aware that the four boys – Philip Chan, David Iredale, Kostas Brooks and Anthony Foster - were planning to do the Mr Solitary walk in December is a matter of contention. There is no doubt, however, that the students believed that the walk would count towards the attainment of their Duke of Edinburgh Awards. Some of the boys gave evidence of some conversations with Mr Forbes during the period the December walk was being planned. Precisely what was said is unclear. Mr Forbes has some recall of conversations with David Iredale and possibly another boy but his principal recollection is as to a request by David for a GPS unit. Mr Forbes says he believed David wanted the unit for another walk due to be undertaken in January 2007.

14. From 1 – 9 December 2006, a series of emails were sent between Kostas Brooks, David Iredale, Philip Chan, Ben Lim and Anthony Foster. They reflect the fact that David made significant and careful effort to gather the necessary camping gear and inform the others, and their parents, of the requirements for the hike. An email dated Friday, 8 December 2006, sent by David Iredale to Anthony, Kostas and Philip, reads as follows:

> *"Hi, this is just a quick email to check that there are no last minute problems. I have all the maps and Navigation Sheets which were given to me by Mr Forbes, so they are reliable, I will give them to you on the morning we meet and we can go over them on the way in the car. They are all correct and I have been assured by Mr Forbes that this is a fairly easy trail to follow so we won't have any problems on that front. I am bringing a fairly comprehensive First Aid Kit, but it would be helpful if you could all bring your own small basic one for personal use, thanks. If you, or any of your parents, have any problems or questions, please let me know, either by email or you can call …*

Thanks and see you at 7:30 at Phil's in Manly Vale for maccas and the drive up!"

The events of 10 and 11 December

15. On the morning of 10 December, the three remaining group members - Kostas Brooks, Philip Chan and David Iredale - met at Philip Chan's home at Manly Vale at 8am. They were then driven to Echo Point by the parents of Philip Chan, with a stop at McDonalds for breakfast along the way. Around 9.30am, the boys arrived at the tourist centre beside the lookout at the top of the Scenic Railway and commenced hiking down the track to the Federal Pass.

16. The walk continued along the Pass as planned. The boys rested at several places on the way, including the Golden Stairs for a 15-minute snack break and the Ruined Castle turn-off, where they stoped for lunch.

17. There are various reports concerning the weather conditions at the time. A meteorological report says that the temperature at 9.00am that morning was 23.4 degrees and rose to 32.4 degrees by 3.00pm. The boys and local police officers report much higher temperatures. Philip Chan had a thermometer built into his watch, which registered temperatures of 36 – 37 degrees, which is consistent with the police reports. On any view, the conditions were very hot and were and had been, very dry.

18. The three boys saw other walkers along the way and spoke with some of them. One of those walkers, Mr. Malcolm Hughes, came forward after the loss of David Iredale and described the three boys accurately. He had been intending to walk with two friends to Mount Solitary but considered that he had insufficient water to do so and returned early. On the way back he met the boys and had a conversation with them, during which he raised the question of their water supplies.

19. On the basis of the evidence provided to this inquest, it is possible to estimate that from 10am to 4pm on 10 December, David Iredale consumed between 2 and 2.5 litres of water. He may have had some additional water before beginning the walk, since the Court heard that the boys drank from their water containers in the car while being driven to the Blue Mountains, and they refilled on arrival at Katoomba. In David's backpack, located by police after his death, there was an empty 2-litre camelbak water bladder and no other water container. Although David owned other water bottles, which were sometimes carried on a belt around his waist, the evidence did not establish that he wore a belt on this December hike, or that he carried other containers.

20. The most difficult part of the walk on 10 December was taken immediately after lunch on route from Cedar Gab to Melville's lookout. This distance of approximately two kilometres is up steep hills and requires the walker to navigate through rocks. According to Kostas Brooks, the boys were forced to stop regularly to drink water. Around the Koorowall Knife Edge, they got lost for around an hour after taking a wrong track. They eventually successfully backtracked to the right path, reaching the highest point of the plateau at around 4pm. By that time, all three boys had exhausted their water supplies.

21. They descended from the Knife Edge and arrived at their campsite at Chinamen's Gully, near Melville's lookout, at about 6pm. The boys had expected to find water and spent 20-25 minutes looking for a source in nearby dry creek beds. They made an attempt to use bush skills to collect water by putting plastic bags on trees in the hope that they would trap transpiration from the leaves. Later they made camp, pitching two tents and lighting a fire. David fried and ate some pre-cooked sausages for dinner and Kostas ate ravioli, while Philip Chan decided not to eat.

22. After dinner the boys sat around talking for a short time and Philip Chan reports that they were "all a bit down". Philip called a friend who had also been in cadets to ask if he knew any other way to collect water. Philip's friend suggested that the boys dig a hole, put a bottle on it and cover it with plastic, but they did not end up trying to do so. Philip Chan called home that evening and he spoke to his mother. The night was a restless one. Kostas woke Philip up around midnight because he was concerned that he couldn't hear him breathing, and Kostas complained in the morning that both Philip and David had been talking in their sleep. According to Kostas, David was having a conversation in his sleep with someone. Philip reports:

> *"Kostas complained in the morning that Dave and I were talking in our sleep and Dave was having a conversation along the lines of someone was offering him water and he was saying "Yes I'd like some water".*

Monday, 11 December 2006

23. The three boys woke early, with their spirits significantly lifted. Kostas and David both ate some form of breakfast and they set off on the track around 7.45am.

24. They had to ascend and traverse across the top of Mt Solitary for about 1.5 hours before they could descend back down into the valley to the Kedumba River where they hoped they would find water. December 11 was also a hot, dry day.

25. At 9.01am while still on the mountain, David Iredale rang home to wish his youngest brother a happy birthday. He spoke to his mother, Mary Anne Iredale, who gave evidence that David was in good spirits. Although David told his mother that he "could do with" some of mango ice cream that she had made and left for him, he sounded calm and did not report being unwell or excessively thirsty.

26. Kostas Brooks called his father, George Brooks, around the same time and told him about the water problem. Mr Brooks Snr made a call to the NSW National Parks and Wildlife Service (NPWS) to establish that there was water in the Kedumba River, and he called Kostas back to reassure him with the news.

27. Although Kostas informed his father of the water problem, there did not appear to be great cause for concern. From the top of Mount Solitary the three boys were only about 4.5 kilometres from the Kedumba River which contained a lot of water. Kostas did not sound stressed or anxious on the phone.

28. The walk from Mount Solitary to the Kedumba River was all downhill, but some of the terrain was very steep with a loose surface and was difficult to negotiate with packs. The boys were not carrying light packs. David's pack weighed 15.3 kilograms.

29. Without mishap the boys would have reached water even at a slow pace within a small number of hours. Kostas Brooks and Philip Chan reached the Kedumba River at around 12.30pm or so.

The separation of the boys

30. From the campsite they left that morning, the boys walked along the plateau that forms the top of Mount Solitary to a lookout known as The Col, arriving at about 10.45 or 11.00am. They had kept together up to this point. At the Col there has been, by long convention, a waterproof tin with a notebook and pen kept in it for hikers to make entries. David made a good-natured entry on behalf of the group, which reads as follows:

> *Got to the top!!*
> *Haven't had H2O for a whole day but river coming up!*
> *Enjoy the view!*
> *David Iredale, Phil Chan, Kostas Brooks*
> *11/2/06*

31. Kostas Brooks had a disposable camera in his pack. Six shots were exposed by the police from the camera, of which three show the boys. It seems likely that at least one of these shots was taken at the Col.

32. From the Col, the boys undertook the arduous task of descending the very steep gradient to a level area, which turned out to be the last place that David was seen alive. That descent would take the fittest person some time and considerable effort to complete, particularly with a pack on their back.

33. Over this period of time David began moving ahead and out of sight of the other two boys, before he would then stop to rest until the other two caught up with him. On several occasions Philip and Kostas called out to him to slow down or "wait up", at which point David would call back for them to hurry up. He was the fittest of the three and was able to make more pace.

34. At the foot of the long descent, about 30 – 45 minutes after they left the Col, Philip and Kostas found David waiting for them. They then left and David began again moving ahead quickly, possibly even jogging or running until he was soon out of sight. That was approximately 11.45am, and was the last time that David Iredale was seen alive.

The Triple 0 Calls

Police

35. Shortly after David was last seen, he commenced to make a series of increasingly desperate phone calls on his mobile to the Triple 0 services seeking assistance. At the time he dialled he did so with limited reception.

36. A combination of telephone system records, including call charge records, and emergency recordings have left a record of David's attempts to seek assistance. The best evidence suggests that he dialled the Triple 0 number a total of seven times. On each of those occasions, the call initially connected David up with a call centre run by Telstra, where operators have the task of asking callers whether they require "police, fire or ambulance", and what town and State they are calling from. That operator then connects the caller with the required service in the town closest to that nominated. There are only two such call centres in Australia, one in Melbourne and the other in Sydney.

37. Telstra records show that David asked for the police on the first call, and thereafter he requested the Ambulance Service. On one of the calls made, at 12.08pm, David was

unable to nominate the service required before the call dropped out, and it was therefore put through to a recorded message.

38. During the first call, put through to police at 11.57am, David was able to pass on the following information:

> *"I'm stuck on the tops of the Kedumba River …"*
> *"… near Mt Solitary walk".*
> *"We set out from Katoomba near the three sisters".*

39. Although that call dropped out, and reception was not good, the small amount of information passed on prompted the creation of a CIDS (Computerised Incident Dispatch System) entry and the commencement of a police search.

40. The CIDS entry, created at 11 December 2006, at 12:07, was given a priority 3. The location was recorded as "National Park off, Echo Pt Rd, Katoomba". The text section read:

> "M **[MALE]** ADVISED IS STUCK ALONG POSS **[POSSIBLY]** KEDUMBA RIVER/ POSS **[POSSIBLY]** ON DOHERTY WALK. M **[MALE]** CALLING FROM SIMLESS MOB **[MOBILE]**. M **[MALE]** ADVISED SET OUT FROM 3 SISTERS 10122006 **[10 DECEMBER 2006]**. NFI **[NO FURTHER INFORMATION]** AS BAD RECEPTION – CALL DROPPED OUT. {FROM PSI – BL12 IS ORGANISING RESCUE AND WILL ATTD **[ATTEND]**//"

Ambulance

41. Thereafter, David commenced the first of five calls through Triple 0 to the Ambulance Service. In those five calls, he spoke with three different ambulance operators - Laura Meade, Renee Waters and Stacey Dickens. He spoke with each of Laura Meade and Stacey Dickens twice.

42. The first call put through to the ambulance Triple 0 centre was at 11.59am and was taken by Laura Meade. The call ended after 1 minute and 41 seconds, because it appears to have dropped out. Some information was passed on by David, including:

> *"Hi, this is an emergency".*
> *"I have been walking the Mt Solitary track and I am near Kedumba River and yeah, that's all I know".*

43. Thereafter, Ms Meade asked David questions to ascertain his whereabouts. The following exchange took place:

Meade: *Do you know where you are?*
David Iredale (DI): No
Meade: *Okay darling, you need to … is there a phone near you somewhere at all?*
DI: *I am using it.*
Meade: *How far from the last track were you?*
DI: Oh no, there's no phone like that. I have no idea.
Meade: *Okay. Where did you walk from?*
DI: *No idea.*
Meade: *Okay. So you've just wandered into the middle of nowhere. Is that what you're saying?*
DI: *I don't have a map.*
Meade*: Okay darling you need to tell me where you started from. You need to tell me where to send the ambulance okay. The Mt Solitary walk ….*

Meade*: (interrupting caller) Listen. Listen. The Mt Solitary walking track may not be on a map. You need to tell me what the nearest street you know is that you've gone past is. Okay?*
DI: *Can you name some of the streets for me. …[unable to determine conversation – possibly 'driveway' or 'highway'].*
Meade: *I can't hear you okay … (pause) .. what is the last place you were near?*

44. The call dropped out shortly after.

45. The next call was to a different operator, Stacey Dickens. That call was very short, dropping out after 10 seconds. It commenced five minutes after the first call at 12.06.25 and ended at 12.06.35. It is noteworthy that David was yelling into the phone "Hey, this is an emergency … emergency".

46. The third call to the Ambulance Service found its way to the first officer again, Laura Meade. This call lasted 40 seconds, commencing at 12.07.55 and ending at 12.08.35. It is short enough to include in full:

Meade: *Ambulance emergency, what suburb please?*
DI: *I'm lost, I need water, I haven't had water for a long period of time … [caller yelling].*
[operator cuts over caller]
Meade*: Sir, do you need an ambulance there?*

DI: *Yes*

Meade: *The what suburb are you in?*

DI: *I'm in Katoomba … [caller yelling].*

[operator cuts over caller]

Meade: *Where in Katoomba are you Sir?*

DI: *I'm not in Katoomba, I set out from Katoomba [caller yelling].*

Meade: *Okay, so where are you now?*

DI: *I am on the walk from Katoomba, actually not from Katoomba, the Mt Solitary walk, Mt Solitary walk, I'm going down to the Kedumba River on that walk [caller yelling].*

Meade: *Okay its near the Kedumba River. Okay do you know what street you might have started on when you were in Katoomba?*

DI: *Hello? [caller yelling]*

Meade: *Hello? Hello?*

47. At that point the call dropped out.

48. The fourth call, which lasted just over 5 minutes, commenced at 12.10.08, and ended at 12.15.09. The operator, Renee Waters, was able to elicit more information than had been obtained to date. Although Ms Waters commenced the call with the standard question, "Ambulance emergency. What suburb please?" she appeared to appreciated that David was in the bush and she did not ask him again to nominate a suburb or nearby street. David was yelling throughout the call, but he was able to tell Ms Waters the following things, prompted by her various questions:

"I need an ambulance".

"I am set out from a hike at Katoomba and went to Mt Solitary hike."

"I'm not in Katoomba I've walked from Katoomba".

"I went to the Mt Solitary, Mt Solitary walking track and I'm going to the Kedumba River".

"I'm on the slope going down to the Mt, to the sorry, sorry cancel, I am on the slope going down to the Kedumba River".

"No, it's bush bash, I may not exactly be on the track".

"No, its bush, trees everywhere. Lying down. Fainted".

"I started at the three sis, near the three sisters".

"Yeah, near the train, near the Katoomba train. I went on the Federal Pass walking track".

"… There are two other people who I don't know where they are, they are further up the slope but I don't know where they are".

"I just fainted".

"… I fainted where I couldn't see them".

49. In response to the question "Where were you heading to?" David stated:

"The river. Kedumba River."

50. It is apparent that towards the end of the call, Ms Waters spoke to another staff member at the call centre and repeated certain information that she had obtained. The call cut out shortly after she had come back on the line to tell David that the service was trying to find him.

51. It is reasonable to draw an inference that Trevor Hinton, the rostered Senior Operations Centre Officer (SOCO), was notified of David Iredale's call by Renee Waters. At 12:12 pm, he contacted VKG Penrith.

52. Trevor Hinton then relayed to police certain information that he had been told about the caller's situation. Significant parts of the conversation are:

"Hey mate I've got ah, what appears to be someone lost in the Mountains, um I've got, we're getting very sketchy information from a fellow that, that he's been walking in the Mountains for two days. Started off on the, the Federal Pass in Katoomba and is making his way down the, um, Mt Solitary fire trail and he's got no idea where he is and he's quite disoriented". …

"He's got no idea where he is. He's on a default mobile which comes up with a Melbourne address, ah we've got him currently on the phone and he's saying that he can hear people around him but he doesn't know where he is or what he's doing so, um, I'm not actually sure where we start here. We've got um, someone with prior, with a bit of local knowledge, maybe your rescue boys in the Mountains".

"They were going to the Kedumba River, there's apparently, there was three people involved. They were going to the Kedumba River from Echo Point".

"His mobile's cut out. Um, apparently he was with two companions, he's fainted on the track and they've just kept on walking".

53. Later in the call, Mr Hinton tells police VKG that he will get a car to Echo Point and liaise with police further. He also offers to find some SCAT and a chopper. Mr Hinton informs police that they have had two calls from the missing person.

54. Following the phone call from SOCO Trevor Hinton, police prepared a second CIDS incident form, which was used to inform the search co-ordinator, Sergeant Ian Colless. That CIDS entry is also allocated a Priority 3 marking and reads:

> AMBOS HAVE RX'D **[RECEIVED]** 2 CALLS FROM M **[MALE]** WHO IS LOST IN THE NATIONAL PARK. STATES HE STARTED ON THE FEDERAL PASS OTW **[ON THE WAY]** TO MT SOLITARY PASS. HAS NO IDEA WHERE HE IS, CALLING ON A DEFAULT MOBILE REG'D **[REGISTERED]** TO MELB **[MELBOURNE]** ADDRESS. HAS BEEN LOST FOR 2 DAYS. HE WAS GOING TO KEDUMBA RIVER AT ECHO PT, WAS WITH 2 OTHER COMPANIONS WHO HAVE KEPT WALKING. HE CAN HEAR VOICES BUT DOESN'T KNOW WHERE THEY ARE COMING FROM. AMBOS ARE GOING TO A/A **[ABOVE ADDRESS]** AND WISH TO LIASE WITH POL **[POLICE]** THERE. BOTH TIMES CALL HAS DROPPED OUT.

55. The last call made by David Iredale to the Ambulance Service was to Stacey Dickens, the operator who had taken the very short second call. This final call commenced at 12.27.59 and ended 3 minutes and 58 seconds later at 12.31.57.

56. The call begins:

> ***Dickens:*** *Ambulance*
> ***DI:*** *Hi*
> ***Dickens:*** *You're through to the ambulance*
> ***DI:*** *Hi*
> ***Dickens****: Do you want an ambulance?*
> ***DI:*** *Yes*
> ***Dickens:*** *To what address?*
> ***DI:*** *Actually, it's probable I'm in the bush*
> ***Dickens****: Whereabouts?*
> ***DI:*** *Katoomba*
> ***Dickens:*** *Whereabouts?*
> ***DI:*** *Katoomba*
> ***Dickens:*** *Whereabouts in Katoomba?*
> ***DI****: I called there about, an hour, 45 minutes ago and then I fainted. [inaudible] … I'm near the Kedumba, Kedumba River. I was going down to the Mt Sol, Mt Solitary track.*
> ***DI:*** *Just hang on a minute.*

57. At this point, David iwas placed on hold for 28 seconds. There is no record of why he was placed on hold and he was not told at the time. However, Ms Dickens continues:

Dickens: *Yeah, just hang on a minute I'm going to put you through to the Supervisor.*
[PAUSE FOR 7 SECONDS]

Dickens: *Are you there?*
DI*: Yep*
Dickens: *Whereabouts are you?*
DI*: I'm facing the Kedumba River. I started off at, at Echo Point and went down the, the, oh, and then I … I can't remember the name of the track. I'm on a rock facing, oh, oh, … hello, can you send a helicopter over cause um, I'm on …*

[operator cuts in]
Dickens: *Hang on*

58. After telling him to hang on, Ms Dickens puts David on hold again for a period of 24 seconds. Again, there is no indication or record of why he is placed on hold.

Dickens*: Now what street are we coming in off?*
DI: *Hello? Hello?*
Dickens: *What street are we coming in off?*
[pause 6 seconds]
Dickens: *Are you there?*
DI: *Yes*
Dickens: *Give me the street that we're coming in off.*
DI*: Sorry?*
Dickens: *Tell me where you are.*
DI*: Sorry*
Dickens: *Don't keep saying that. Tell me where you are.*
DI: *[heavy breathing]. I'm facing the Kedumba River. I came through, I came through, oh, the Mountain in the middle of the valley that the Three Sisters are on, that track.*
Dickens*: And what track is it?*
DI*: Sorry?*
Dickens: *What track is it?*
DI: *I can't remem, oh, … I don't have a map [inaudible – groans and heavy breathing]. I've been out here for an hour.*
….

DI: *hello?*

Dickens*: I need to know exactly where you are.*

DI*: Can you tell me the name of the Mountain in the middle of the valley .. That the Three Sisters are on.*

…

59. The call drops out a short time later, after further discussion hampered by poor mobile reception.

60. At 12.30pm, Trevor Hinton spoke with Inspector Greg Hanson, the Duty Operations Centre Officer (DOCO) on shift. Inspector Hanson was informed of three calls from same missing person, the plan to liaise with Katoomba police and the possible need for the Ambulance Service to send a SCAT helicopter if one was vacant.

61. Ultimately, no SCAT helicopter was organised by the Ambulance Service. At around 12:50pm, the Ambulance Service was informed by Police that they were not required and that Police would organise a search helicopter and would contact the Ambulance Service again if needed.

The movements of Chan and Brooks

62. From the point on the track at which they last saw David Iredale, Kostas Brooks and Philip Chan continued to make their way to the Kedumba River and arrived there at about 12.30pm. They had kept an eye out for their friend and had called out his name as they moved along the track. After reaching the River, Kostas and Philip spent around one hour cooling off and waiting for David to arrive. When he did not, they tried to ring him and sent text messages, but they had no reception and had to walk ahead to higher ground before they attempted to make further contact.

63. At around 2.30pm, Kostas Brooks telephoned his father and informed him that David was missing. Mr Brooks advised them to walk to Kedumba Pass and both boys arrived there at around 4pm. Some time around 5pm, they were picked up by Constable U'Brien, who had been out driving along fire trails searching for David. Kostas and Philip were taken to Katoomba police station by officer U'Brien, who then resumed the search for David.

64. After receiving the call from his son after 2pm, George Brooks contacted Ms Rita Fin, Assistant to the Headmaster at Sydney Grammar School. Ms Fin then contacted Mr Robert James (Jim) Forbes, Coordinator of the Duke of Edinburgh scheme at the school, to see if he knew about the walk and could assist. Mr. Forbes denied any knowledge of the walk and recommended that Ms Fin call an external operator of

adventure trips who at that time was conducting an adventure activity near Glenbrook for Grammar boys under the Duke of Edinburgh Scheme.

65. Ms. Fin contacted David's mother Mrs. Maryanne Iredale. Shortly afterwards, communication between Dr and Mrs Iredale and the police commenced. In the meantime, the police had contacted the National Parks and Wildlife Service who informed them of the calls by Mr. Brooks.

The search for David Iredale

Monday, 11 December

66. The search for David began on the afternoon of 11 December and continued until his body was found on 19 December 2006. As noted above, that search was triggered by the first phone call that David made to Triple 0, when he was transferred to police and was able to give limited information before the call cut out. From that call, CIDS records were created which provided limited information that a male was lost in the area, with reference points to the Kedumba River, Mt Solitary and Echo Point. The CIDS message contains a reference to "Doherty walk" (a walk that does not exist), which is inexplicable and had little bearing on the search.

67. Around 12.30pm, Sgt Ian Colless, an accredited land search and rescue trained officer, assumed the role of Search Co-ordinator. Sgt Colless tasked Constable U'Brien to begin the search for David by driving his vehicle down various fire trails, including the Sublime Point Ridge Road and Kedumba Pass fire trail, which led to the Kedumba River. As previously outlined, on the return of Constable U'Brien along that track he came across Kostas Brooks and Philip Chan at about 5.20pm at the intersection of the Mt Solitary track with Sublime Point Ridge Road.

68. After Philip Chan and Kostas Brooks had been located and transferred to the Katoomba Police Station, Constable U'Brien and other police recommenced searching the fire trails for David Iredale. Senior Constable U'Brien continued to search until 8.00pm. At 16.05 a police aviation aircraft arrived and commenced an airborne search of the trail until light failed at 19.50 when the aircraft returned to Bankstown. In the meantime, Mrs Iredale was assisted to complete a Missing Persons form at around about 5.20pm.

Tuesday 12 December 2006

69. At 7.00am on 12 December a major search commenced. POLAIR could not rejoin the search until late that afternoon because of cloud conditions, but foot searches

commenced along the Mount Solitary track. It was decided to substantially expand the search to conduct foot searches of watercourse tracks. That search continued throughout the course of the day and then in darkness from 9.00pm until mid-night.

Wednesday, 13 December 2006

70. On 13 December, the search was continued with the involvement of officers from the Police Rescue Squad, State Emergency Service, National Parks and Wildlife Service and Police Aviation Support Branch. Superintendent Patrick Paroz took on the role of Search Controller.

Thursday, 14 December 2006

71. By the morning of Thursday, 14 December, there were approximately 80 people involved in active searching and a further 60 in various aspects of the administration of the search. The Dog Squad was also introduced, but did not help to limit the search. A grid search was commenced shortly after that but was unsuccessful. A foot search occurred quite near the position of David's body, but the nature of the terrain apparently obscured both his body, which was in a gully near a fallen tree and a large rock, and his backpack which was standing beneath some scrub.

72. On the afternoon of 14 December, Superintendent Patrick Paroz, who had been appointed the "search controller", tasked his colleague, Inspector Lyons, to make urgent application for the VKG and ambulance Triple 0 calls that David had made. Later that evening, an email with a sound byte of the 11 December call by David Iredale to police was emailed to Katoomba police from the Police Communications Centre. On the 15th December, a CD containing two of David's phone calls to the Ambulance Service was physically picked up by police from the Everleigh Triple 0 Ambulance centre and transported by road back to Katoomba Police Station.

Thursday, 15 December 2006

73. On Friday 15 December, police contacted the Ambulance Service and asked them to check records for a third call from David Iredale. A third call was subsequently located and given to police on 15 December. Although we now know that David made 5 calls to the ambulance 000 centre, the last two calls were not located by the Ambulance Service until some time early in 2009, during preparation for this inquest.

74. The content of the three calls then received and reviewed by police apparently assisted in narrowing and refining the search carried out for David, although his body was still not found until Tuesday, 19 December.

75. When David's body was found it was in poor condition. It was well off the track (200m) in a small rocky dry creek or gully of a moderately steep gradient. It was in a position with the knees folded under the body as though David had slumped down and had been leaning against a fallen tree in the gully. Behind him was a large rock. The body was removed by police, firstly to a clearing near the Kedumba River, known as Kedumba Clearing, where a preliminary examination occurred. Police then arranged for a transfer by helicopter to the Westmead Morgue.

76. An autopsy was carried out on 20 December by Dr. Neal Langlois. David's father was also his dentist and was able to promptly provide dental records, which assisted in identification. In addition to the work carried out by Dr. Langlois as pathologist, a Ms. Radmilla Mitrevski carried out some chemical tests to determine whether some snake or other venomous bite may have played a part in David's death. She found nothing to suggest or support that possibility.

Monday, 8 January 2007

77. A striking feature concerning the finding of David's body was that his backpack and his mobile phone were not found on or around his person. A new search was therefore commenced on 8 January 2007, and David's backpack was located by Detective Senior Constable John Fasano. It was only a short distance from the track (about 50 m), higher up the slope though close to Kedumba River, and 110m from David's body by GPS reading.

78. David's backpack was neatly packed. It contained an empty 2-litre water camelbak and no other water container. It had ample food and equipment of good quality, along with a number of documents related to the planning and execution of the walk. The pack contained items which would have been visible through the trees to police aircraft had they been spread out.

79. Despite an extensive search conducted of the area surrounding David's body and his backpack, the mobile phone he carried on the walk has never been located.

CORONER'S SUMMARY, FINDINGS AND RECOMMENDATIONS

80. The inquest into the death of David Balthazar Iredale commenced at this Court on the 14th April 2009. Over the proceeding 13 days the Court examined a volume of documentary material, which included the Police brief of evidence (Exhibit 2) and some further 45 tendered exhibits. A total of 21 witnesses were called who gave oral evidence.

81. At the conclusion of oral evidence the Court heard submissions from Counsel assisting the Coroner and from Counsel appearing for the various interested parties to whom leave to appear had been granted.

82. It was apparent from the brief of evidence and further identified during the inquest that a number of key issues would be the focus of this inquest. Those issues have been identified as the following;

- The role played by the Sydney Grammar School in approving and supervising students who had enrolled in the Duke of Edinburgh Award Scheme.
- The operation and management of the 000 Call Centre and the NSW Ambulance Call Centre in relation to its response to 000 calls from David Iredale and the dissemination of information provided to NSW Ambulance.
- The administration and oversight of the Duke of Edinburgh Award Scheme by the Scheme's governing body.
- The availability and access to information to persons hiking or camping in the Blue Mountains National Park.

83. As previously stated the role of the Coroner is not to apportion blame and having regard to the manner in which this inquest has been conducted by all parties and the concessions and apologies made by individual witnesses and organisations, a detailed analysis of the evidence is not necessary. Apart from two specific issues of fact, there is very little that is contentious. Accordingly any reference to a particular witness or body is in the context of the presented evidence and for no other reason.

84. I propose to deal with the identified issues as follows:

Sydney Grammar School

85. The Court has been told that the Sydney Grammar School encouraged and circulated information about the Duke of Edinburgh Award Scheme to its eligible students. The Scheme required that students could enter the Award Scheme at the Bronze Level, having attained the minimum age of 14 years. The Scheme is a three-tiered award scheme moving from Bronze to Silver and then Gold. The Court has been told that, as in David Iredale's case, a student can progress directly to Silver providing certain additional requirements are met. It is understood from the evidence that Sydney Grammar School (SGS) had supported the Duke of Edinburgh Award for a number of years following the inception of the Scheme in New South Wales in 1961. Up to 150 students of various ages participated in the scheme each year. Each level of the Duke of Edinburgh Award Scheme has four components: Physical Recreation;

Service to others; the acquisition of a new Skill; and participation in an Adventurous Journey. Of particular relevance to this inquest is the Adventurous Journey component, which requires the participants to complete a trek. Depending on the level of award sought, this component could require camping out for one to three nights. The Adventurous Journey component also incorporates participants learning and being involved in the pre-planning of the trip. Pre-planning would involve map reading, plotting, equipment requirements, food and water requirements, navigation sheets, survival techniques etc.

86. In 2006 Mr Robert James Forbes, a teacher at SGS was the Duke of Edinburgh Award Coordinator and had performed those duties since 2002. Mr Forbes has been a teacher since 1973 having worked in a number of schools in NSW and the Northern Territory. Mr Forbes has worked at SGS since 1980 and currently teaches science and geology. Mr Forbes has a history of involvement in outdoor activities, including hiking, sailing and cycling. In 1981 Mr Forbes completed the Officer of Cadets Corps Course and has been involved in the Cadet Corp at SGS for many years. Mr Forbes had extensive experience in organising and supervising camps and hikes for Cadets and also approving and accompanying hikes and treks for the Duke of Edinburgh Award.

87. The duties performed by Mr Forbes with the cadets and the Duke of Edinburgh Award were performed by him on a voluntary basis and there has been no evidence to suggest that he was provided with any additional administrative support or leave.

88. The evidence has established that in September 2005 a Duke of Edinburgh trek was conducted in the Blue Mountains National Park with a number of students and that Mr Forbes supervised and accompanied the students on this trek. Some time before June 2006, David Iredale and a number of other students approached Mr Forbes with a view of doing a similar trek to the one conducted in 2005. The evidence has clearly established that Mr Forbes approved the proposed trek in June 2006 and that he met with the anticipated participants on a number of occasions in the period leading up to the proposed walk. The evidence also strongly suggests that at the various meetings maps were handed out as well as navigation sheets, equipment requirements etc. The overwhelming inference from the evidence is that information noted and plotted during the September 2005 walk was handed out to the proposed participants for the planned June 2006 walk. The evidence also clearly establishes that David Iredale was one of the students who planned to do the June 2006 walk on the Mount Solitary track. The evidence also establishes that the walk was approved by Mr Forbes and that the walk would be unaccompanied.

89. It became apparent during the inquest that the record keeping and paper trail for approved walks was deficient. Mr Forbes was not able to explain why he had no records of the approved trek in June 2006, however, did proffer the view that he may have discarded the documents when he later ascertained that the trek had not proceeded. While it is now the case that SGS is outsourcing the expedition part of the Duke of Edinburgh Award, it is of concern that no documentation was ever kept by the School in regard to an approved walk in June 2006. There is no doubt that the approved walk in June 2006 did not meet with the requirements of the Duke of Edinburgh Award Scheme as the co-ordinator had not put in place any system for supervision of the boys while on the trek. The fact that Mr Forbes only ascertained that the trek did not proceed (due to cold weather) after the resumption of the school vacation confirms a failure to follow the guidelines.

90. While David Iredale died during the ill-fated December 2006 Mt Solitary walk, the significance of the planned June 2006 walk should not be lost. It was virtually the same trek as that planned for June 2006 and that may explain why there appears to be a conflict between the evidence of the students planning the December 2006 walk and the evidence of Mr Forbes.

91. The conflict in the evidence centres predominately on the evidence given by Philip Chan and Kostas Brooks who, in general terms, state that they recall speaking to Mr Forbes about the December 2006 Mt Solitary walk. Mr Forbes has no recollection of ever being approached, discussing or approving a planned walk in December 2006 at Mt Solitary. Mr Forbes believes that any discussion he may have had with David Iredale or any of the other planned participants towards the end of 2006 related to a trek in January 2007 in the Snowy Mountains. Similarly while Mr Forbes acknowledged that David Iredale approached him on Speech Day in regard to the supply of a GPS, he again believed that this conversation was in relation to the planned January 2007 trek.

92. I believe that it is important to note that when one examines the various e-mails that passed between the intended participants in the December trek, the tenor and nature of those e-mails does not suggest that the boys were in any doubt that the trek had been discussed and approved by Mr Forbes. The question that has to be asked is why would David, who wanted to complete his Silver before embarking on his Gold Award in January, participate in a trek if he believed that it was not approved.

93. I find on the balance of probabilities that David Iredale and the other intended participants did speak to Mr Forbes about their planned trek in December and that in this regard Mr Forbes' memory of the conversations may be poor due to various

pressures that would be apparent towards the end of final term. It is also possible that with the passage of time he may be mistaken as to when conversations took place in regard to the June, December and January proposed treks. It may also be possible, and this may explain why no paper work exists, that Mr Forbes provided the boys with the documents that had been prepared for the June 2006 walk. It is also possible that as David Iredale, Philip Chan and Kostas Brooks had all planned to do the June 2006 walk, some of the paper work may still have been in their possession.

94. An inquest has the benefit of hindsight and what this inquest has identified is that SGS, with its best intentions of providing its students with an opportunity to participate in the Duke of Edinburgh Award, did not give sufficient attention to the administrative responsibilities that are associated with such a scheme. While SGS now out-sources the Adventurous Component of the Scheme, there are, no doubt, many private and public schools that continue to support and supervise the Duke of Edinburgh Award from existing internal resources. It is hoped that those schools will provide the appropriate time and resources to their teachers and other staff members acting as Award Co-ordinators to fully understand the obligations placed on them in administering the Scheme. What this inquest has identified is that schools administering the Duke of Edinburgh Award Scheme should ensure:

- That teachers who volunteer as co-ordinators are appropriately trained and resourced,
- That all teachers involved in the administration of the Scheme fully understand the rules and guidelines set out by the governing body,
- That schools ensure that appropriate record keeping be kept of students who are enrolled, planned treks, approvals, consents etc.
- Parents who have provided consent for their children to participate in a trek should be provided with information regarding the nature of the trek, its duration, supervision requirements, telephone contact numbers etc.

95. I am satisfied on the presented evidence that the trek undertaken by David Iredale, Kostas Brooks and Philip Chan on the 10th December 2006 on the Mount Solitary Track was undertaken by them in the belief that it was an approved Duke of Edinburgh Award expedition and one that would be recognised in the pursuit of that Award. The fact that the number of participants technically breached the guidelines of the Award Scheme does not detract from the belief that the boys invariably had that it was approved and sanctioned.

96. I propose to make a number of recommendations that touch upon the administration of the Duke of Edinburgh Award and those recommendations are directed at both the

governing body and schools and organisations that supervise and co-ordinate the Award Scheme.

97. In addition I propose to forward the findings of this inquest to the State and Federal Ministers for Education in order that the issues identified at this inquest may be disseminated through the education system.

The operation and management of the 000 and Ambulance Service call centres

98. A very large part of this inquest has focused on the 000 calls made by David Iredale and how the NSW Ambulance Service dealt with those calls. It should be acknowledged that the Ambulance Service and the individual call takers and supervisors have in open court accepted that the corporate and individual response to David Iredale's call for help was deficient. The inquest has also identified what are seen as systemic issues that revolve around the appropriate and timely delivery of emergency services.

99. The inquest identified a number of shortcomings in the manner in which 000 calls are received, processed and information disseminated. A list of the perceived shortcomings were circulated by my counsel assisting to all interested parties with a view that they be considered in the light of any possible recommendations. The matters identified, included the following:

First point of contact when making a 000 Call

100. All 000 calls made in Australia are first received by a Telstra operator who will inquire as to whether Police, Ambulance or Fire Brigade assistance is sought. Calls are received at either the Melbourne or Sydney call centres. The operator will question the caller as to the State of origin of the call and the location and then divert the call to Police, Ambulance or Fire Brigade in the respective State.

101. It is apparent that if a caller seeks Police or Ambulance and provides a location the call is then transferred without further interrogation. David Iredale made seven Calls to 000, in his first call he was able to advise that he wanted the Police and he gave a location as Katoomba, which resulted in that call being transferred to NSW Police. In subsequent calls to 000 David asked for Ambulance and again he was required to provide a location in order that the call could be diverted to the appropriate State. In listening to those calls it was apparent that considerable and valuable time may have been lost as David was not able, no doubt due to the state of his health, to give clear and precise information as to his location. Similarly once the call was received by the

Ambulance Service, the caller would again be interrogated in regard to providing an address or location in order that an Ambulance may be despatched.

Ambulance response and protocols to incoming calls

102. Ambulance Service call takers are trained and the computerised system is designed and managed with a primary focus of ascertaining an address or location with a view to the timely despatch of an Ambulance if required. While this approach to the majority of incoming calls appears to work well, it is predicated on establishing an address in order that the system may work through its menu in order to facilitate despatch.

103. It is apparent, and was apparent in all the calls that David Iredale made, that too great a focus was given to establishing an address or location and very little regard was actually focused on what the caller was saying. It was obvious to everybody that listened to David's calls to the Ambulance Service that he was lost in bushland and he was able to provide a location as being near Katoomba, Mt Solitary or near the Kedumba River. The relentless focus of all the call takers in further attempting to establish an address or precise location, having regard to the nature of the calls, was astonishing.

104. This inquest has established that this failure was a systemic failure, no doubt influenced by a pre-occupation with establishing an address in accordance with the guidelines and training provided. This inquest has established that there is an urgent need for training and guidance as to how the computer system can be overridden in order to provide a more appropriate response.

105. It was apparent that in the five calls made by David Iredale to the Ambulance Service that the call takers, perhaps because of the pre-occupation in ascertaining a street address and possibly due to inadequate training, did not identify that the calls were coming from a remote location. From the information David Iredale was providing, the call takers should have known how to override the system and go into free text entry. The recording by free text of vital information would have resulted in the contemporaneous recording of that information and thereby avoided the possibility of inaccurate information being passed on to Police. A further advantage of free text entry is that any supervisor would be able to read the free text and a permanent record would be generated.

106. A number of changes have already been suggested, including the referral of remote location calls to a supervisor. Certainly this is a step in the right direction, however, it is proposed to make a number of recommendations.

A centralised multi-agency approach

107. This inquest has also identified that a 000 call could in fact be received in either Sydney or Melbourne and then transferred to any one of a number of States to either Police, Ambulance or the Fire Brigade. In the case of urgent calls, particularly from remote locations, valuable time could be lost, particularly if calls need to be re-directed to the more appropriate agency. It has been suggested that a multi-agency approach should be considered which would involve Police, Ambulance and Fire Brigade. I propose to make recommendations along those lines.

Skills and training for 000 operators

108. This inquest has identified that the majority of 000 call takers who currently work at the Ambulance Service call centre are not medically trained. There is no doubt that in many cases the need for medical knowledge may not be required, however, one of the issues identified in the death of David Iredale is that not one of the Ambulance Service call takers was sufficiently trained to identify that David was not only saying that he had fainted but also that he was medically compromised. While it is not suggested that all Ambulance call takers should have medical experience to the level of a registered nurse or paramedic, certainly some training in the ability to identify persons in distress would be desirable. As far as Supervisors who are working in the call centre, it would not be inappropriate that they have at least the training equivalent to that of a Grade 1 Ambulance Officer.

109. This inquest has identified that in all the calls made by David Iredale to the Ambulance Service there was a lack of empathy and call takers lacked the skills and or ability to elicit and effectively record vital information that was crucial. The pre-occupation with a regimented system that was designed to elicit an address resulted in the loss of a window of opportunity that may have resulted in a different outcome. I propose to make recommendations on this point.

Caller identification and the ability to identify repeat calls

110. This inquest has identified that despite David Iredale successfully getting through to the NSW Ambulance Service on five occasions and speaking to three different Operators, the system was not and, I understand, is still not capable of identifying a repeat call from the same person. It would seem that the reason the system does not facilitate this information is that it is programmed to record a location address for Ambulance despatch.

111. It is known that the system will automatically generate what is known as a Call Line Identification (CLI) address. This address will be the address at which the phone is registered and the operator is required to determine if the Ambulance required is for the CLI address or some other address. In the case of calls from mobile phones, the system may provide a registered address or, as in David's case, it may provide what is referred to as a default address. The default address is the address at which the service provider is registered.

112. It is appreciated that difficulties do exist with calls from mobile phones, which may have a default address. However, the system should be able to identify repeat mobile phones to the same default address. Or, alternatively, if the caller's location is determined or, for that matter, the caller's name, manual data input by the operator should provide the system with the ability to identify a repeat call. It was noted that in all five calls to the Ambulance Service, not one of the three call takers ever asked David his name. I propose to make recommendations on these issues.

Electronic transfer of data and or recorded calls

113. This inquest identified that the current system, while having the ability to record incoming calls, does not have the ability to transfer data or recorded calls to other agencies. We know that it took four days before the calls that David made to Ambulance were located and downloaded. It then required the Police to send a vehicle to the Ambulance Centre at Redfern to pick up the CD and then drive it back to Katoomba where it could be listened to.

114. Sergeant Colless has told the Court that if he had been able to listen to David's calls to the Ambulance Service within a short time after his last call at 12.27pm on the 11th December 2006, he would have obtained vital information that would have narrowed the search to the area in which David's body was eventually found.

115. The ability of a system to provide timely information to searchers, particularly those who may have local knowledge is essential. When one listens to what David Iredale had told the Ambulance Service operators in his five calls, it would have been evident to Police who have local knowledge of the Katoomba area, that David was off the Mount Solitary walking track and that he had been heading towards the Kedumba River. It also would have been obvious that he was medically compromised. I propose to make recommendations on this point.

Processing of non-urgent Ambulance assistance

116. This inquest has been informed that the Ambulance Service call centre not only receives 000 emergency calls, but also calls on the 123 number which are taken by the 000 operators. Calls to the 123 number are calls made for Ambulance services of a non-urgent nature. They include hospital transfers.

117. It would appear that the primary focus of the 000 operators should be to deal with emergency situations and that routine, non-urgent ambulance requests may be more appropriately diverted or dealt with by another section. I understand, however, that approximately 25% of all Ambulance 000 calls are for non-urgent medical transfers. I propose to make recommendations on this point.

Critical analysis of adverse outcomes

118. I confess that I was astonished that at no time after the death of David Iredale or any time leading up to the commencement of this inquest, did the Ambulance Service of NSW conduct an appropriate review and/or analysis of their performance in the circumstances leading to David's death.

119. The Court has been told that the Ambulance Service of NSW was not aware that an inquest would be held until only recently and that they have co-operated fully since then. That is accepted and the Court does appreciate, as I am sure does the Iredale family, the assistance provided at this inquest and the concessions made. That said, however, it remains astonishing that a person can ring 000 Ambulance on five occasions and, there being no satisfactory outcome, that some form of review would not be undertaken.

120. Any organisation that provides a vital service to the community must have systems in place for self-analysis. Such systems must be able to identify a poor outcome or a critical incident. Only by implementing a system of review, examining failings and making changes can there be some guarantee that systemic or individual failings can be addressed. This is a responsibility of the senior management of the service and I propose to make recommendations on this point.

Other issues identified in regard to the Ambulance Service of NSW

121. I propose to make recommendations that there be a comprehensive review of the service and delivery of services by 000 call centres and clearly any such recommendation should involve associated agencies such as Telstra, Police and NSW Fire Brigade. This Court does not have the technical knowledge to suggest how best those changes might be implemented. However, this Court has identified

the problems and the type of service that should be provided, and it is now a matter for the experts in the managerial and technological aspects of such services to address these issues.

122. Any review should also examine issues associated with Occupational Health & Safety, fatigue, burnout, complacency and appropriate skills and training. These matters will be subject to formal recommendations.

The Duke of Edinburgh Award Scheme

123. The Duke of Edinburgh Award Scheme was first introduced in the United Kingdom in 1956 and in Australia in 1958. The scheme is now open to teenage boys and girls from the age of 14 and young adults up to the age of 25. In NSW the Award Scheme is operated by licensed operators who agree to meet the criteria for the award and support and encourage young people in the program. In NSW the Award Scheme comes under the umbrella of the Department of the Arts, Sports and Recreation.

124. In preparing for and during the commencement of this inquest it was not considered that the governing body of the Duke of Edinburgh Award would need to participate in the inquest. It became apparent, however, that a number of issues in regard to the appointment of co-ordinators, their training and information provided by the Scheme were relevant. The subsequent appearance of Ms Sibtain on behalf of the Department of the Arts, Sports and Recreation has been appreciated, as has the information and assistance provided during this inquest.

125. Counsel assisting has flagged a number of possible recommendations that may assist in the better delivery of information in regard to the Duke of Edinburgh Award.

126. It also has emerged that there may be some ambiguity in the written literature to the scheme co-ordinators as to the requirement to lodge a pre-log with the relevant Award Co-ordinator before the commencement of the expedition.

127. I propose to make recommendations to the Duke of Edinburgh Award and I wish to make it clear that any such recommendations should not be seen as any criticism of the Scheme nor imply any shortcomings. The recommendations are made in the spirit of removing any ambiguity and to ensure that future candidates have as much information available as possible. After all, we must acknowledge that a large number of participants to this Scheme are children and the more information and advice that can be provided can only assist and better prepare students for the expedition segment of the Award.

Department of Environment & Climate Change

128. The Blue Mountains National Park is administered by the National Parks & Wildlife Service (NPWS) under the Department of Environment & Climate Change.

129. There was no evidence presented at this inquest that David Iredale or any other boys who had planned to do the Mount Solitary Walk had approached or obtained any information from NPWS. Similarly there is no suggestion that NPWS was in any way involved in the planning of the Mount Solitary walk by the boys or consulted by Sydney Grammar School (as far as is known) in regard to the September 2005 walk or the planned June 2006 walk.

130. That NPWS sought leave to appear at this inquest was appreciated as they provided valuable information in regard to their management of the Blue Mountains National Park and outlined the various sources of information available to the public through their brochures, signs and other literature. NPWS also, in conjunction with the NSW Police, provide a free Personal Locator Beacon (PLB) on request and upon registration of a planned trek or hike.

131. As with the Duke of Edinburgh Award Scheme a number of recommendations have been considered that may provide more information to prospective users of the Blue Mountains National Park, particularly in regard to the availability of Personal Locator Beacons and information in regard to the availability of water.

132. I was pleased to hear that NPWS would give appropriate consideration to any recommendations made and those recommendations are all directed at better educating the public. It is a known fact that the Blue Mountains National Park, which is in easy access by public transport from Sydney, receives thousands of visitors per year. Those visitors can be of all ages and invariably include tourists and, accordingly, I propose to make recommendations that may go towards providing essential information, particularly in regard to water needs and availability of Personal Location Beacons.

SUMMARY AND FORMAL FINDINGS

133. David Iredale died on the 11th December 2006 primarily because he ran out of water on a hot summer's day while undertaking a fairly arduous trek from Echo Point to the Three Sisters via Mount Solitary and the Kedumba River. The trek was to take 3 days and involved 2 overnight sleep outs.

134. It is abundantly clear that all of the three boys who embarked on the expedition made a critical miscalculation as to their water requirements for this journey. The

miscalculation was aggravated by the belief that information on data navigation sheets and other anecdotal information suggested an abundance of water at the location of the planned first night camp at Chinamen's Gully. It is clear that the boys felt that they had enough water (about 9 litres between the three of them) to safely get them to Chinamen's Gully were they had expected to find and replenish their water supply. With replenishment, there is no doubt that the trek from the Campsite, down the plateau of Mt Solitary to the Kedumba River was achievable and they would have replenished their water at the Kedumba River. It is highly probable that information regarding the availability of water at Chinamen's Gully may have been correct for a trek in September or June but it would appear that considerations in regard to December temperatures and evaporation were not taken into account.

135. The evidence also suggests that the boys had used up all their water before reaching Chinamen's Gully on the evening of the 10th December. The warm temperature, in excess of 37 degrees and the fact they took a wrong turn and had to back track further compromised their water supply.

136. We know that David Iredale was probably the fittest of the three boys and on the assumption that they had shared their available water the question that emerges is how and why it was that David perished and Kostas and Philip made it safely to the Kedumba River.

137. There are a number of plausible explanations and one known fact. Of the plausible explanations it is possible that David consumed less water than the other two boys as the evidence suggests that he only took 2 litres of water with him while the other two boys carried 3 and 4 litres respectively. David's lean build and fitness probably made him more susceptible to dehydration and hyperthermia due to his lower body fat index and it is known from the evidence that David probably exerted himself much more than the other two boys.

138. David's personality, perhaps a sense of responsibility and being the more experienced resulted in him making the decision to go ahead. This decision of course was fatal in that he not only used up his remaining energy but also separated himself from the other two boys who were unaware that he had become fatigued, disoriented and had gone off the track.

139. David's death highlights just how dangerous and unforgiving the Australian bush can be. It also highlights that despite meticulous planning and a backpack which was stocked with food, first aid kits and almost every conceivable need appropriate for trekking and sleeping out, the one thing that David needed most and did not have was water.

140. It is clear from the evidence that the search and rescue attempts co-ordinated by the Police were timely and appropriate given the information available to them at the time. There is no doubt that if information David had provided to NSW Ambulance as to his location and condition had been provided to Police on the afternoon of the 11th December he would have been located sooner. It must be accepted on the evidence of Dr Luckin that David most probably succumbed to dehydration and died within a relatively short time after his last phone call at 12.27pm. While the chances of locating David alive on the afternoon of the 11th December were remote, even with all the available information at the disposal of Police, the location of his body sooner would have provided the Iredale family at least with the opportunity for a dignified farewell.

141. I return the following formal finding.

DAVID BALTHAZAR IREDALE DIED ON THE 11th DECEMBER 2006 NEAR THE MT.SOLITARY WALKING TRACK, JAMIESON VALLEY IN THE STATE OF NEW SOUTH WALES FROM THE EFFECTS OF DEHYDRATION AFTER HE BECAME SEPARATED FROM HIS COMPANIONS AND LOST WITHOUT SUFFICIENT WATER, WHILST UNDERTAKING WHAT HE BELIEVED TO BE AN ADVENTUROUS JOURNEY FOR THE PURPOSES OF ATTAINING THE SILVER ACCREDITATION FOR THE DUKE OF EDINBURGH AWARD.

Magistrate Carl Milovanovich.
NSW Deputy State Coroner.

Penrith Court. 07.05.2009

RECOMMENDATIONS

I make the following recommendations pursuant to s.22A of the *Coroner's Act 1980*:

To the Honourable Steve Whan MP, Minister for Emergency Services:

1. That a working party (including the NSW Ambulance Service, NSW Police Service, NSW Fire Brigade, NSW National Parks and Wildlife and Telstra Communications Service Point) be established to review the structure, operation, management and training for NSW triple 0 emergency call centres, with particular attention given to the following issues identified in the course of this inquest:

    (a) The potential advantages of an integrated agency response, i.e., a single Statewide Triple 0 call centre for police, fire and ambulance services.

    (b) The effectiveness of protocols relating to remote access callers and lost persons.

    (c) The appropriateness of training for call takers as to empathy and phone manner, advice for lost callers (search and rescue issues) and first aid.

    (d) The possible training for call takers with respect to the assessment of the need for, and the availability of and access to, paramedical advice and assistance.

    (e) The appropriateness of training for call takers when dealing with default mobiles (i.e. obtaining call back numbers earlier than in calls where there is a call ID).

    (f) Current workplace conditions in call centres (e.g. shift hours, breaks and holidays) and their conduciveness to effective call taking.

    (g) The failure of the NSW Ambulance Service to effectively identify "Critical Incidents" that should lead to a "Root Cause Analysis" aiming to assist in training and improve services.

    (h) The appropriateness of separating non-emergency calls (hospital transfers etc) from Triple 0 emergency calls, so as to increase the effective operation of the Triple 0 centres.

    (i) The failure to interrogate callers on their first triple 0 contact to establish the appropriate service referral.

    (j) Avoidance of duplication of questioning and answers (with respect to information given to operators at the Emergency Service Answer Point and other call centres and by operators at the same call centre, dealing with repeat calls).

(k) The limitations on immediate and expeditious transfer of primary information between relevant emergency services and the need for urgent progress to be achieved with respect to the implementation of the Inter-CAD Electronic Messaging System (ICEMS) Protocol, particularly between the Ambulance Service and the NSW Police Force.

(l) The limitations of the existing software and database system to effectively deal with the taking, logging and transfer of calls, including the following:

(i) The inability of the Triple 0 computer system to recognise repeat in-coming calls, in the absence of an available street address.

(ii) The difficulty of retrieving calls made by the same caller, in the absence of a recorded street address.

(iii) The inability to track or register call dropouts.

(iv) The inability to retrieve and copy calls upon notification of the search and rescue agency.

2. That the Ambulance Service of NSW immediately address the limitations of its existing software package and data base so as to more effectively deal with the taking, logging, recovery and transfer of emergency calls. Particular attention should be given to ensuring that sound files of calls can be emailed by the NSW Ambulance Service to search and rescue services at the time they are notified of a caller in need.

3. That the Ambulance Service of NSW carry out a thorough internal review and "Root Cause Analysis" of its involvement in the David Iredale incident, examining conduct and system issues.

To the Honourable Carmel Tebbutt MP, Minister for Environment and Climate Change:

1. That a review be conducted to determine whether the National Parks and Wildlife Service (NPWS) provides sufficient assistance to members of the public in relation to safe water consumption on walks and the availability of Personal Locator Beacons (PLB's). Where necessary, funding should be allocated to ensure that the NPWS is able to deliver the appropriate education campaign and update information sources.

2. That the NPWS review its educational material (on-line services, signage in parks, literature and the use of external media) to determine whether it can offer further assistance to educate the public about the importance of carrying sufficient quantities of water and adequately planning overnight walks.

3. That the NPWS review its capacity to educate the public as to the availability of PLB's from Police and the NPWS.

To the Honourable Kevin Greene MP, Minister for Sport and Recreation:

1. That the Duke of Edinburgh Award Scheme (DEAS) update its record-books distributed to candidates to specify that candidates must obtain written pre-approval for each particular expedition, planned on identified dates.

2. That the DEAS update its written material delivered to co-ordinators to specify that candidates must obtain written pre-approval for each particular expedition, planned on identified dates, and that co-ordinators must keep records of such pre-approval. In circumstances where an expedition is cancelled after pre-approval, records should be kept of the pre-approval and reasons for cancellation.

3. That the DEAS conduct a review of its literature relating to advice to co-ordinators and candidates on water consumption during expeditions.

4. That the DEAS amend its literature to require co-ordinators to educate candidates about the following matters:

   (a) the importance of candidates contacting appropriate local authorities to determine the availability of water on planned walking routes;

   (b) the availability of schemes that provide for the registration of trips with local authorities and the importance of utilising such schemes; and

   (c) the value of one candidate in any walking group carrying a Personal Locator Beacon (PLB) where those devices are available from Police or the National Parks and Wildlife Service.

Magistrate Carl Milovanovich.
NSW Deputy State Coroner.

Penrith Court. 07.05.2009