PART TWO

Introduction

As a result of representations made by counsel on behalf of the families of the victims on 3 July 1995 the Commission's terms of reference were extended to include matters that occurred after the collapse of the platform and in broad terms concern the actions of the police and all the other organisations and people involved in the subsequent rescue operation and with particular reference to the steps taken to notify rescue services of the collapse, the provision of medical assistance to those at the scene, the actions taken to evacuate injured persons and, not least, the actions taken to identify those who died or were injured in the collapse and to notify their next of kin. Particular emphasis was to be placed on whether all those actions were expeditious, effective and appropriate *in the circumstances*. In addition, if those actions were not expeditious, effective or appropriate *in any respect*, then suggestions for changes to practices and procedures could be made.

At the time of the tragedy, the families were overwhelmed by grief and shock and simply could not gather sufficient facts to understand adequately some of the concerns that they raised. Those included fears that some victims might not have died if assistance had arrived earlier; there was a suggestion that a road ambulance team had been kept away from the site for a significant period of time; there were concerns, too, that the families of victims had not been notified quickly enough of the status of the victims.

The authorities considered it appropriate that the terms of reference should be extended so that these and all appropriate matters could be properly aired.

Over eight hearing days I heard oral evidence from 47 witnesses, received affidavit evidence from 49 witnesses (whom parties and counsel had indicated they did not wish to cross-examine), listened to one oral submission and received 19 submissions, all of which have been taken into account.

I am satisfied that every piece of relevant material has been disclosed before the inquiry.

While noting the families' wish that this part of the inquiry provided the opportunity to improve the operational effectiveness of all emergency services engaged in future rescue operations, Mr Cameron said, "I am pleased to record that the families are now satisfied as to the evidence that has been put before the Commission and in this way the Commission has served to quickly allay family concerns on many issues."

The rescue that day was under the overall control of the police, who had categorised it as a class 2 search and rescue operation. As will become apparent, it was an operation involving the immediate engagement and urgent deployment of a very large number of organisations and people required first to locate and then quickly and effectively to evacuate some 18 victims from a remote location in Westland.

As Mr Hughes-Johnson succinctly put it in his opening address:

> ... in any rescue operation of this magnitude there are bound to be minor deviations from established practices and mistakes of judgment made. Whilst Your Honour will no doubt examine the actions of those involved in the rescue operation with a critical eye you will also no doubt do so in the context of the particular circumstances in which the rescue operation took place.

I agree with that analysis and propose to follow it. In terms of paragraph (ia) of the terms of reference I am required to consider whether the actions of those involved in the rescue operation were expeditious, effective and appropriate *in the circumstances*. I begin therefore by providing a brief account of physical aspects.

Chapter 1

The Nature of the Area

The village at Punakaiki where the Department of Conservation (the department's) visitor centre is situated is about 30-35 minutes' comfortable driving time north from Greymouth along the coastal State Highway 6. About 1 kilometre north of the centre is Bullock Creek Road, a single carriageway shingle two-wheel drive road winding gently in an easterly direction up the valley for about 7 kilometres, and which is about a 15-20-minute careful and comfortable drive. Towards the upper reaches, about 2 to 3 kilometres from the end, the road traverses low-lying areas susceptible to flooding, as there was on the day of the platform collapse.

I visited Cave Creek on two occasions, the first time before the hearing, accompanied by Mr Hughes-Johnson and Department of Internal Affairs officials. On that occasion we were driven and escorted by Mr Barry Hanson, a Department of Conservation employee who is now Field Centre Manager at Punakaiki. On the second occasion, a formal view attended by counsel, parties and media, I was driven by Constable Alan Hendrickson. On both occasions we were in specialised off-road four-wheel drive vehicles and therefore had no difficulties with water clearance or traction. On both visits there was water across the road at the above mentioned point. It is not surprising that one of the two-wheel drive ambulances, an orthodox road vehicle, suffered electrical failure at the flooded section of road while responding to the emergency on 28 April. Shortly after the water there is a locked gate to retain stock on the Bullock Creek farm flats beyond. At the end of the two-wheel drive road there is a second gate. The flat open area just before the second gate will later be referred to as Forward Headquarters. Two-wheel drive vehicles cannot safely proceed beyond the second gate. There is then a very rough 1-2-kilometre section of track traversable only by off-road four-wheel drive vehicles or on foot. About three to five minutes' drive (or about 10 minutes' walk)

further on you reach the points where first the Inland Pack Track crosses the road and then the Cave Creek walking track begins (the junction). It is a comfortable 900-metre walk taking about 10 or 15 minutes along the formed track up and over a ridge to reach the platform site located a few metres off the track proper. The bottom of the resurgence may be reached by walking down a track, stairs and boardwalk -- another two or three minutes.

So, a comfortable journeying time from Greymouth to the bottom of the resurgence is between one hour five minutes and one hour 15 minutes.

The closest visible house to the Cave Creek resurgence is Mr Jack Forrest's home on State Highway 6, immediately opposite the Bullock Creek Road turn-off. Punakaiki Village is the closest population centre.

Grey Base Hospital is located within Greymouth, three to five minutes' drive south of the main centre, and is the only hospital offering specialist services for the whole of Westland. Westport is situated about one hour 20 minutes drive north of Greymouth and Hokitika about 30 minutes' drive south of Greymouth. Greymouth is serviced by an airport capable of operating light twin air ambulance aircraft. The airport is next to the hospital. The helicopters involved at the rescue fly at block speeds of about 100 knots or less, so flying time through the mountains from Christchurch to the Coast is about an hour, and from the Cave Creek site to Grey Base Hospital is about 10 to 15 minutes. Christchurch is about three and a quarter hours' comfortable drive by road through Arthur's Pass to Greymouth; a light twin air ambulance will fly the journey in about 35 minutes.

Although, in conservator's terms, the Cave Creek site is part of the front country, it is nevertheless a comparatively remote, isolated and inaccessible part of New Zealand.

The West Coast comprises a series of narrow lowland river flats against the

background of bush-clad foothills rising to high alps, the flats interrupted by ridges of varying heights running down to the sea. Roads are seldom straight and (although the scenery is superb) line of sight radio communication is notoriously difficult. To appreciate this, one has only to drive a short distance north or south of the broadcast radio transmitter near Kumara Junction (about 15 kilometres south of Greymouth) and observe the fluctuating car radio performance.

Although the West Coast is known for its high rainfall, on 28 April 1995 the conditions were clear, calm and sunny so adverse weather did not affect the rescue operation.

Chapter 2

The Immediate Aftermath of the Collapse

I shall deal with the collapse aftermath in three separate and distinct phases. The first will cover events between the collapse of the platform and the making of the 111 call to the police. The second phase will cover what happened between the making of that call and the arrival of the last of the victims at Grey Base Hospital. The final phase will cover the period from the arrival of the final victim at the hospital and the last formal notification to next of kin.

Remember that there were 18 people on the platform when it fell. The members of the party at or near the site who were not on the platform were Mr John Skilton (the polytechnic tutor), Ms Shirley Slatter (the department's Punakaiki Visitor Centre Manager), and the three students, Leanne Wheeler, Darren Gamble and Mark Traynor. There were no other people in the vicinity.

Again I think it appropriate to record their words.

Mr Skilton:

> After the platform collapsed I checked my watch as I wanted to remember the time for first aid purposes. However I have been unable to recall the time.
>
> Shirley Slatter and I had a very brief discussion about priorities; this would not have taken more than a couple of minutes. We decided that she would arrange for Mark Traynor to raise the alarm and I would take the other two students down to the gorge floor and render first aid. We knew someone was still alive because we could hear yelling. From the top where the platform was it was too unsafe to look over the edge because it was slippery and muddy. We had no idea what

was down below until we got there. To get to the gorge floor we walked down the track and then down the boardwalk until we reached the floor. Then we went up the gorge towards where the students were. I made sure we walked and was conscious that Leanne Wheeler and Darren Gamble were behind me. This was because I wasn't sure what we would find and I wanted some time to gather my thoughts. I had left my pack at the top but had taken my first aid kit with me along with Shirley's.

Ms Slatter:

When I arrived at the platform site the noises from the people down below started -- some moaning sounds and I remember someone calling out for help. John Skilton arrived at about that point. The other three students, Leanne Wheeler, Darren Gamble and Mark Traynor, also arrived. I remember calling out to those below to keep calm. John and I worked out a plan of action. We decided to send Mark Traynor to the vehicle to use the radio, with written instructions for him as to how to use it. John said he had a diary and a pencil which I retrieved from his pack and ripped out a page to use. I think I wrote something on the piece of paper and then I said to John that he and the others had better go down to the bottom to see what they could do. I would finish writing the instructions then I would join them. However, having written a bit more I could see that it was really necessary for me to go back and use the radio myself. It was too complicated trying to tell Mark how to use the radio and what to do if he couldn't raise anyone.

The evidence of Leanne Wheeler, Darren Gamble and Mark Traynor confirms that evidence. Darren Gamble said that Mr Skilton warned him and Leanne Wheeler to prepare themselves for what they might find at the bottom of the resurgence.

And so those in authority, Mr Skilton and Ms Slatter, immediately formulated and

undertook a plan of action. Mr Skilton, skilled in basic first aid, would lead Leanne Wheeler and Darren Gamble down into the resurgence to deal with members of the party whom they immediately assumed were likely seriously injured. Ms Slatter and Mark Traynor would return to the department's vehicle parked at the second gate in order to use its two-way radio to summon help.

Ms Slatter and Mark Traynor immediately started walking and jogging back up the track. Ms Slatter looked at her watch as they came up to the vehicles and it was 11.44 a.m. No one is able to say precisely when the platform collapsed but during the course of the hearing it became generally agreed that it must have been around 11.25 a.m. I shall adopt that time for the purposes of this report.

The first setback occurred when Ms Slatter and Mark Traynor reached the vehicle. This had been driven in by Stephen O'Dea, who had fallen with the platform, and the keys were in his pocket. The radio would not work without them. The pair then checked the other polytechnic vans but they, too, were without keys. They agreed that Mark would run out for assistance but he first helped Ms Slatter to collect together as much warm clothing and first aid material as could be found in the vehicles.

With enormous presence of mind Ms Slatter then wrote on a piece of paper an extensive list of instructions. She wrote, "This is an emergency, 111 Police, approx 15 people have fallen 100 feet. Cave Creek top platform collapsed. We need helicopters, scoop net, medics, ambulance, crash kit, personnel." She listed the name of Ms Kerryn Searle, who was the Information Officer on duty that day at the Punakaiki Visitor Centre, and the phone number of the centre. She also provided Mark Traynor with Mr Forrest's name and gave him directions about what to do if there was nobody home. Mark then ran off down the road while Ms Slatter organised the clothing into packs, along with the first aid kits, and set off to return to the accident site. On the way she came across two cyclists and asked them to pursue Mark Traynor, for one of them to lend him a bicycle and for the other to accompany him to raise the alarm. Only one of the cyclists, Mr

Bruce Margetts, was sufficiently fit to cycle fast enough to catch up with Mark Traynor. Meanwhile Mark, unaware of what really had happened as a consequence of the collapse, but appreciating the potential seriousness of the situation, had run a good way down Bullock Creek Road towards State Highway 6 before he was overtaken by Mr Margetts, and he cycled the remaining distance. At Mr Forrest's home at 12.16 p.m. he telephoned 111 and spoke to Constable Kenneth Forman at the Greymouth Police Station. From a combination of physical exhaustion and emotional stress he was unable to complete the call and Mr Forrest took over reading Ms Slatter's note for him. Mark deserves the highest praise for the part he played.

I shall now return to the bottom of the resurgence. Remember that there were four survivors of the fall, two of whom, Stacy Mitchell and Carolyn Smith, had recovered sufficiently to give evidence.

Stacy Mitchell:

> I remember the platform falling and branches flicking against the front railing. The railings seemed to stay attached to the platform until I lost consciousness. I can't remember hitting the bottom. I first remember waking up lying on my right side, wedged between what felt like two boulders. I was knocked out and I have no idea how long that was for. The only injuries that I suffered were a contusion on my lung, bruising around my kidney area and quite a lot of bruising generally down my right side.

Given the medical evidence, which will be set out later, there is no doubt at all that Stacy is very much a walking miracle, to the extent that after he was evacuated by helicopter to the Forward Headquarters area, he had difficulty in persuading a sceptical ambulance officer that he had in fact gone down with the platform.

Carolyn Smith:

> The fall felt endless to me and I felt as though it couldn't really be happening. I believe I blacked out about 5 metres from the ground.
>
> I woke what I now believe was very shortly after hitting the bottom and was very badly winded. it took me two to three minutes to get my breath back while lying on my back with my head hanging down and backwards. I could feel warm liquid, obviously blood, flowing down my face and neck into my ear.
>
> I sat up and could then see the underneath platform edge about 1 foot above me. Although I could feel no pain, I think the first thing I noticed was that my leg was broken.

Carolyn Smith is making a slow recovery from very serious leg injuries.

When he reached the bottom of the gorge, Mr Skilton noted that the platform was lying on the rocks nearly flat, intact and decking uppermost. Carolyn Smith complained that her leg was hurt; Stacy Mitchell was sitting but stood up when he saw Mr Skilton and the group. Scott Murray was lying facing Carolyn Smith and asking to be freed. Mr Skilton described him as strong but agitated. That description accords with the description provided by others. Both Carolyn's and Scott's legs were trapped under other people. Catherine McCarthy was trapped by the underside of the platform, but most of the others who had fallen were under the platform, there being 1-1.5 metres of space available under the platform between the rocks on which it was resting.

Mr Skilton decided that the first priority was to check those victims who were not obviously conscious for a pulse and breathing. He explained this to Leanne Wheeler and Darren Gamble. Both had earlier in the year undergone a two-day basic first aid exercise as part of their course, and so knew about taking a pulse or pulses from various parts of the body, checking breathing and how to place victims in the recovery

position. Understandably the memory of the three about the sequence of events that followed is varied. In summary, they checked each of the other 14 victims and found a further three, Sam Lucas, Kit Pawsey and Stephen Hannen, to be still alive. They checked and rechecked. To the best of their respective abilities, they satisfied themselves that the remaining victims were all dead.

Having freed Carolyn Smith they moved her to one side and had Stacy Mitchell sit with her. To free Scott Murray they had to shift Alison Blackman, Kit Pawsey and Abram Larmour. Kit Pawsey was unconscious and breathing badly; he never regained consciousness. While moving him, they found that Stephen Hannen was breathing. They straightened out his legs and leant him (not quite in the recovery position) against the body of another victim who was dead. Stephen Hannen appeared to Mr Skilton to have a major head wound and, he suspected, a neck injury. Stephen was able to move his own right arm but otherwise they did not shift him from his original position because of possible spinal injuries. There was an issue raised at the hearing as to whether there was any other person lying on top of Stephen. I find the evidence is quite clear that there was not, and that he was not moved from that position until after the ambulance personnel arrived.

While they were still moving about assessing people, Mr Skilton, Leanne Wheeler and Darren Gamble periodically checked those who remained alive. Here were three young people dealing with 18 others, 12 of whom they had ascertained were already dead and the remainder injured, some seriously. Mr Skilton's evidence was that they were concerned to make sure that they checked everyone for signs of life. He had periodically checked Kit Pawsey but, while moving around and continuing his assessment, he found that Kit Pawsey had died.

Thereafter the group concentrated on the five who remained alive.

Ms Slatter arrived back from the vehicles. The best estimate of her time of arrival is

about 12.30 p.m. That means that Mr Skilton, Leanne Wheeler and Darren Gamble had by that time been dealing with the dead and the injured for the best part of an hour. No praise for them can be too high. To help them to control their own emotions and out of deference to the victims' families, they gave at the hearing what I am sure was a very sanitised version of what it was really like at the bottom of the resurgence that afternoon. These three witnesses are to be applauded for the way in which they gave their evidence about what must have been an extremely trying experience. As Leanne Wheeler put it, "We all talked a lot and encouraged each other. I am sure we went into auto-pilot to deal with what we had to do. It was the only way we could have done it."

The clothing Ms Slatter brought was used to make the injured more comfortable. After he was told about the lack of keys to the department's vehicle, Mr Skilton crawled under the platform and searched, without success, for the keys on Stephen O'Dea's body. Ms Slatter and Mr Skilton, being concerned as to whether Mark Traynor had successfully raised the alarm, sent Darren Gamble out with a second message. Shortly after Darren left the bottom of the resurgence, the keys were found and Mr Skilton ran to give them to Darren, catching up with him just past the platform site. As Darren set off for the vehicles, Mr Chris Cowan's helicopter arrived overhead for the first time, with a short strop and scoop net, about 1.10 p.m. One hundred minutes had thus elapsed from the collapse to the first sign of outside assistance. This is a convenient point to return to the 111 call to the Greymouth Police at 12.16 p.m.

Chapter 3

The Rescue Effort Begins

The Immediate Response

In relating the sequence of events I shall make frequent reference to times. During the earlier stages of the hearing, the issue of establishing precise times seemed very important but, as we progressed, it became clear that this aspect was not as significant as it might at first have seemed. Some of the times I refer to are accurate in the sense that they were recorded in police and ambulance logs and so on; others are simply best estimates made by witnesses too busy on the day to be concerned about noting precise times. Because there are variations in the estimates, it is best if all times mentioned are taken to be close approximations. As will become clear, precise times are unimportant.

At 12.16 p.m. Constable Forman in the Greymouth Police Station was given the essence of the message written out by Ms Slatter for Mark Traynor. Recognising the gravity of the emergency, Constable Forman immediately notified Senior Sergeant Philip Deazley, the officer in charge of the Greymouth Police. He directed Constable Forman to contact the St John Ambulance Regional Control Centre in Christchurch to request medical assistance and air and road ambulance and to enquire about the availability of a local privately operated helicopter. He also immediately briefed Sergeant Arnold Kelly and appointed him to be Officer in Charge of Scene. He directed Sergeant Kelly to travel immediately with Constable Vaughan Joyce to the Bullock Creek Road area. They were asked to uplift Mark Traynor on State Highway 6 at the Bullock Creek Road entrance, and to assess and report on the situation as soon as possible. Senior Sergeant Deazley then directed Constable Adele Coll to obtain a trailer and uplift emergency equipment, a radio, a scoop net and a basket stretcher from the police store in Greymouth and transport that immediately to the department's Punakaiki base. The radio was to be delivered to the Punakaiki Visitor Centre and the

stretcher and scoop net were to be available to the local helicopter upon arrival.

At 12.21 p.m. the Greymouth Police notified the St John Regional Communications Centre in Christchurch (St John RCC) and requested medical assistance, air and road ambulances. Constable Forman then telephoned Mr Cowan (working in his helicopter in an area about five minutes' flying time to the east of Greymouth) advised him of the accident and asked him if he was available to assist. He was, and was asked to stand by and told that he would be contacted further again with details.

Meanwhile at 12.20 p.m. Mark Traynor had telephoned the Punakaiki Visitor Centre. It was lunchtime and 17-year-old Ms Kerryn Searle was there on her own. Between December 1994 and June 1995 Ms Searle was employed on Task Force Green as a receptionist at the visitor centre. She had arranged with Ms Slatter to go on the trip that day, but Ms Slatter's persuading Stephen O'Dea to go had cancelled that arrangement. The group left no list of names at the visitor centre when it passed through earlier in the morning.

When Mark Traynor telephoned Ms Searle he told her his name, that he was with the polytechnic group and that there had been a serious accident at Cave Creek. A platform had collapsed and fallen approximately 30 metres and about 15 people were injured. He told her that Ms Slatter had asked him to call and that he was at Mr Forrest's house. Thereafter Ms Searle's actions were quite superb; the resourcefulness and initiative of the young are often underestimated by their elders. Following an emergency procedure in which she had been trained, she first tried calling around on the department's radio for any Punakaiki staff that she could raise. Probably because it was lunchtime she was unsuccessful. She then telephoned Mr Forrest and had him read Ms Slatter's note since she was not certain she had understood Mr Traynor's call correctly, because of his emotional state. She then called all the department's vehicles in turn on the radio but again received no response. She rang the department in Hokitika and spoke to the relief receptionist and to Mr Hanson. She told him what had happened and that she

needed department people from around the West Coast to assist and someone to help at the visitor centre. She then telephoned the police in Greymouth and spoke to Senior Sergeant Deazley. Although he already knew of the accident, he did not know how serious it was so she was able to tell him there were about 15 serious injuries (as she understood it at the time). She told him that a controller would be needed at the visitor centre; she asked if the police required department staff to assist and he answered affirmatively. She then called the Reefton and Westport Field Centres and asked for assistance as soon as possible and made further attempts to round up the Punakaiki Field Centre staff.

Next she telephoned Mr Cowan, told him there had been an accident and could he attend. When he explained that he was already on standby from the police, she, with extraordinary initiative, "told him to go up there anyway because I knew that the police would take half an hour to get up to Punakaiki plus time to pick up all their gear and time to get up to the crash site and I knew it would take Chris a lot less time to get in". Her reasoning was correct. In fact it took 20-25 minutes to get to Punakaiki, collect the gear and fly over the accident site.

After the call from Ms Searle Mr Cowan put down the load he was then carrying and flew to his base at Barrytown (about 10 minutes by road south of Punakaiki), where he refuelled the helicopter and picked up equipment. From there, with his crewman Mr Peter Savage, he flew along the Coast Road to the Punakaiki Field Centre workshop area where he arrived at 1.00 p.m., just as Constable Coll arrived with the rescue equipment.

St John Ambulance

It is now necessary to go back to 12.21 p.m. and to trace the St John Ambulance response to the Greymouth Police call requesting medical assistance, air and road ambulances. Some information is first necessary about the way St John Ambulance is organised. For this I am grateful for the evidence of Mr Bernard Chatterton of Christchurch, who is the Regional Chief Ambulance Officer and a man of very lengthy experience with ambulance services.

At the time of the Cave Creek disaster the structure for ambulance services in the South Island was as follows. The national headquarters of the St John Service, under its umbrella of the New Zealand Priory Trust Board, commands five regions, one of which is the Northern Region (SI). The Northern Region (SI), based in Christchurch, carries out activities and operates under three functional arms: ambulance, community and training services. All Canterbury, West Coast and Nelson ambulance services are organised through the Christchurch Regional Communications Centre (RCC). That means that the 111 emergency number for the top two-thirds of the South Island is answered in Christchurch. At the time of the disaster the St John Ambulance Service on the West Coast was administered under two separate contracts, one of which was with Coast Health Care Ltd, the Crown health enterprise responsible for all health care on the West Coast. In essence, under that contract St John was bound to provide emergency ambulance services on a 24-hour, seven-day emergency response to any 111 or other urgent call requesting ambulance assistance.

Emergency ambulance services include telephone response, assessment, treatment and transport of patients by land, air or water as soon as possible. That is, the St John Ambulance Service must respond where it believes its services are required; it does not have a discretion to decide whether to respond -- if there is a perceived or believed emergency a response must be made.

The 111 call from Constable Forman to RCC was immediately referred to Mr Michael Wright, an operations supervisor. He was told that "we had an incident of 14 or more persons who had fallen down a platform or off a platform down a cliff face in the Punakaiki area". Two ambulances were immediately directed to Punakaiki from Greymouth and another two from Westport. Each ambulance contained at least two qualified ambulance personnel. Mr Wright then had a brief discussion with other supervisors about what the response should be and about 12.27 p.m. the decision was made to put Garden City Helicopters on alert.

The Westpac Helicopter

Garden City Helicopters Ltd is a commercial helicopter operator based in Christchurch which, under contract, makes a helicopter and fixed-wing air ambulance available at short notice for rescue missions. Its method of charging the Christchurch Air Rescue Trust for its services means that its rescue operations run at a loss, and so it is itself a sponsor of the trust. The trust, established in 1989, is a charitable trust dedicated to providing air search and rescue and ambulance services and to assist people whose lives or wellbeing have become endangered or threatened. The trust is a non-profit organisation which receives its income from sponsorship, from charging the police and St John Ambulance for services and from donations. There are similar trusts in the Auckland and Wellington areas which also have as their chief sponsor the Westpac Banking Corporation. As chief sponsor, Westpac enjoys naming rights so the service is publicly known as the Westpac Rescue Helicopter. I shall refer to it as the Westpac helicopter.

The standby call from RCC was received by Mr Eric Scott, Chief Pilot at Garden City Helicopters and an extremely experienced and qualified helicopter pilot. He then prepared the Squirrel helicopter for flight by installing the necessary equipment, which

took about four minutes. That required installing the winch which has a cable length of 36.5 metres and a retrieval rate of 15.25 metres per minute with a maximum load of 136 kilograms. The winch can also lift a static load of up to 410 kilograms but, to lift over 136 kilograms, the helicopter needs to be manoeuvred rather than the winch operated. In practice this means that it is normally only possible to lift one person at a time by use of the winch. It is Mr Scott's experience that, where specialist crew are required (as was the case here), it can take anything up to 30 minutes to assemble the necessary crew to Christchurch Airport where the helicopter is based. That proved to be the case. At 12.54 p.m. the winch operator, Mr Simon Duncan, arrived and got ready. Two paramedics from St John Ambulance, Messrs Evan Roper and Tony Beaumont, arrived soon after and also prepared for the trip. After a short briefing session the Westpac helicopter was in the air at 1.04 p.m. with those four men on board en route for Cave Creek. There was nothing in the evidence to suggest that the callout and response by the Westpac helicopter was anything other than smooth.

The RNZAF Callout

Once the arrangements to commission the Westpac helicopter were in place, Mr Wright and his team then took steps to commission an RNZAF Iroquois helicopter. At 12.37 p.m. RCC notified RNZAF Wigram of the emergency and asked for assistance. In evidence Squadron Leader James Finlayson said that the callout and operation proceeded very smoothly. He explained that the first response for helicopter search and rescue on the West Coast is carried out using any of the highly competent and capable local operators. Given the distribution of helicopters on the Coast, the size of the area and the weather conditions, a competent operator located in an incident area is the obvious quick and practical choice for a first response. I shall return to that point when later considering the issue of helicopter rescue services on the Coast.

The RNZAF has a National Operations Room and Base Operations, RNZAF Base

Auckland and calls for assistance are directed there. Authority for the callout must come from that source, but as 3 Squadron Detachment Commander based in Christchurch, Squadron Leader Finlayson also has authority to make decisions to assist in civilian callouts. The RCC call was first made direct to the Wigram Base in Christchurch, so Squadron Leader Finlayson began to prepare for the callout while the necessary authority was being obtained from Auckland, and there was no delay. As a general rule, 3 Squadron will be airborne within 30 minutes from the first call. As will be seen, this operation proceeded within that time frame.

The Iroquois helicopter, one of two based at Christchurch, is permanently configured as a search and rescue (SAR) aircraft. I am grateful to Squadron Leader Finlayson for detailing the capabilities of and the rescue equipment installed on the Iroquois but because it is so well known how these aircraft perform in the SAR role in New Zealand, it is unnecessary for me to detail them here. The aircraft was airborne from Wigram at 1.00 p.m. and proceeded to South Hagley Park adjacent to Christchurch Hospital where it uplifted three St John Ambulance personnel and then proceeded directly to Punakaiki. Squadron Leader Finlayson was the pilot, Flying Officer Hill the co-pilot, Flight Sergeant Heke the helicopter crewman and Major Diane Swap, a registered nurse, flew as medic. The three St John Ambulance officers were Messrs Christopher Haines, Kevin Howley and Ian Hay. That team was airborne from South Hagley Park at 1.11 p.m.

The Ground-based Response

St John

Remember that at 12.24 p.m. St John RCC had alerted the Greymouth Ambulance Services. As a result Ambulance Officer Kelvin Ritchie of Greymouth, a fulltime officer since January 1995 with the qualification of proficiency, but previously a volunteer for

six and a half years, left his home in ambulance 892 and proceeded to pick up his crew, consisting of Ambulance Officers Ray Williscroft and Andrew Ching. He then notified Grey Base Hospital of the situation, whereupon the Ambulance Service in Hokitika called and offered to cover the Greymouth area while the other services were away. Mr Ritchie then decided to pick up Ambulance Officer Shelley Klempel, a volunteer officer, from her place of work, which he did. At a time that I infer was shortly before 1.00 p.m. ambulance 892 arrived at the Punakaiki Field Centre and was given directions by Constable Coll. Meanwhile ambulance 893, driven by Ambulance Officer Lyn Stepkowski, accompanied by Ambulance Officer Warren Smith, left Greymouth at 12.28 p.m. only a short time after ambulance 892. Ambulance 893 arrived at the Punakaiki Field Centre just behind ambulance 892. The pair of them had been passed by Constable Coll during her journey with the trailer.

Meanwhile, Ambulance Officer Ian Rodger, a fulltime ambulance officer holding the qualification elementary/cardiac and living in Westport, was paged about 12.30 p.m. and departed Westport in ambulance 889 at 12.35 p.m., accompanied by Ambulance Officer Lynne Higgins. They arrived at the Bullock Creek Road turn-off at approximately 1.00 p.m. They were followed by ambulance 890 from Westport.

The New Zealand Fire Service

Chief Fire Officer David Hyde is stationed at Greymouth and holds the position of Area Logistic Support Officer (West Coast). On operational matters he is responsible to the Chief Fire Officer for the Nelson-West Coast area, who is based in Nelson. At 12.43 p.m. the Fire Service control room in Christchurch (Control) received from Grey Base Hospital a 111 call to assist the ambulance at Punakaiki where it was reported that 15 people had fallen about 30 metres off a platform. Control activated the siren for the Runanga Fire Brigade (about 7 kilometres north of Greymouth) and the paging system for the Greymouth Fire Brigade. At 12.47 p.m. the Runanga fire appliance and the

Greymouth rescue tender responded, as did the Greymouth No. 1 appliance at 12.49 p.m. These manned vehicles were despatched as part of a predetermined response to a particular type of incident. Most of the equipment likely to be needed at an incident of this type is carried on the rescue tender. As it happened, this was not required, but that was not known at the time of the response. Fire officers are trained in all types of rescue operation and form an integral part of an emergency callout of this kind. They were later able to assist in recovery and care of the victims.

Grey Base Hospital

Mr David Meates became Manager of Grey Base Hospital as an employee of Coast Health Care Ltd in February 1994. He is responsible for the overall management and delivery of services from Grey Base Hospital. The hospital services cover a wide range of both acute and elective surgical and other services involving the usual specialists, nursing and clinical support staff. It runs 126 beds with 241 fulltime staff equivalents, and is the only base hospital on the West Coast.

About 12.30 p.m. the hospital received notification of the disaster from the Greymouth St John Ambulance Service. The message received was that the service was going to Punakaiki where a viewing platform had collapsed and up to 20 people had fallen approximately 30 metres. At that stage the service had no idea of the injuries. The hospital has a Coast Health Care Emergency Response Plan which was put into action as soon as the message was received. A communications centre was established, the hospital was put on alert and the accident and emergency triage specialists were placed on standby. The plan also required that a temporary mortuary be set up and other support services, such as mental health and counsellors, could be arranged if required. In his capacity as Clinical Adviser, Dr Michael Sexton, a surgeon at the hospital, was advised that a major accident had occurred, and the hospital was put on standby anticipating the worst, i.e. that there would probably be at least 20 injured people with a

number of the injuries expected to be major.

Appropriate arrangements were then made for attendance of senior experienced nursing staff, cancellation of clinics, back-up nursing staff for theatre on standby, additional orderlies on standby, additional support services such as laboratory and X-ray on standby, and the setting up of a central control centre. Meetings were held to organise the reception of the anticipated casualties.

The Alpine Cliff Rescue Team

Messrs Rodney Perrin-Smith and Roy Arbon are members of the Alpine Cliff Rescue Team. The former lives in Greymouth, the latter at Barrytown. Both are very experienced search and rescue organisation volunteers, the former over 26 years and the latter over 35. Both are long-time members of the West Coast Alpine Cliff Rescue Team, which turned out to the disaster. At 12.30 p.m. Senior Sergeant Deazley contacted Mr Perrin-Smith and requested assistance. The latter loaded equipment into a four-wheel drive vehicle and left Greymouth bound for Cave Creek about 1.00 p.m. About 12.40 p.m. Mr Arbon was contacted by Constable Hendrickson and requested to assist. He collected his rescue equipment and drove to Punakaiki, where he met Constable Coll. This was probably shortly after 1.00 p.m. because he had just seen Mr Cowan flying his helicopter in the direction of Bullock Creek. At Constable Coll's request he drove along the Bullock Creek Road, meeting Mr Van Dijk on the way. To avoid congestion, Mr Arbon left his vehicle off the road and travelled on with Mr Van Dijk.

At the Greymouth Police Station

At 12.25 p.m. Sergeant Kelly and Constable Joyce left the Greymouth Police Station for the Bullock Creek Road turn-off. En route they were provided by radio with information on the location of Mr Forrest's home. At 12.30 p.m. Constable Hendrickson was instructed to go to the Greymouth Police Station and prepare an Alpine Cliff Rescue Team to go to the scene. He arrived at 12.35 p.m, was briefed and began loading full equipment into a police four-wheel drive vehicle. His instructions were to travel to the scene as soon as possible and assist in the rescue of injured, the removal of bodies and to secure the site, exhibits, property and prevent access by unauthorised people. At 12.40 p.m. Constable Hendrickson communicated with Mr Arbon and arranged to meet with him at Punakaiki.

At 12.45 p.m. Sergeant Smith was briefed by Senior Sergeant Deazley to be responsible for liaison with the polytechnic, Grey Base Hospital and with next of kin and relatives; Senior Sergeant Rose was told that he would be required to assist. While en route, Constable Coll was directed to meet Mr Cowan at his helicopter at Punakaiki and deliver to him the scoop net and stretcher. Sergeant Kelly was advised accordingly. At 12.50 p.m. Sergeant Shirley was briefed and appointed as Media Liaison Officer. At the same time Constable Forman telephoned Mark Traynor and advised that Mr Cowan, air ambulances from Christchurch, ambulances from the hospital, doctors and police were on their way. Mark was asked to wait at the Bullock Creek Road junction so that police might pick him up and have him guide them to the scene.

Again, at the same time Sergeant Smith spoke to St John RCC and informed them about the actual location of Cave Creek, supplying them with a grid reference.

At 12.51 p.m. department staff from Punakaiki contacted the Greymouth Police, who sought confirmation of directions to Cave Creek and requested a list of the names of those involved.

At 12.52 p.m. St John RCC contacted the Greymouth Police via 111 and advised of the ambulance vehicles and the Westpac and Iroquois helicopters on the way and sought a better map reference.

At 12.55 p.m. Sergeant Kelly and Constable Joyce met Mark Traynor at the Bullock Creek Road junction with State Highway 6. Mr Margetts offered assistance and was posted at the Bullock Creek Road entrance to prevent other than emergency service vehicles and personnel access up the valley.

At 12.57 p.m. Sergeant Kelly radioed Greymouth Police, advising of his position and that he was proceeding up the Bullock Creek Road.

At 12.50 p.m. Constable Hendrickson departed Greymouth for the scene, accompanied by Mr Perrin-Smith, and advised Greymouth Police, requesting additional personnel.

The Position at 1.00 p.m.

It may be instructive at this point to review the response of the rescue services at 1.00 p.m, i.e. some three-quarters of an hour after the alarm was first raised. I do so partly because there was no criticism whatsoever at the hearing about any phase of the operation up to this point. More importantly, I also do so because, in my opinion, the case illustrates a first-class, swift and effective response by a wide range of rescue services reacting cohesively and immediately to a major disaster in a relatively remote area of New Zealand.

By that time:

1. The advance guard (Mr Cowan, Sergeant Kelly and Constable Vaughan) were over

or approaching the site.

2. Four ambulances and at least eight trained ambulance officers were beginning the journey up Bullock Creek Road.

3. Two fire appliances and the fire rescue tender were immediately behind the ambulances.

4. The fully equipped Alpine Cliff Rescue Team was leaving Greymouth for the scene.

5. The Westpac Rescue and RNZAF Iroquois helicopters, fully equipped with rescue teams and medics, were airborne from Christchurch.

6. Grey Base Hospital was on full alert and anticipating up to 20 casualties.

7. The Greymouth Police had appointed officers in charge of all anticipated areas, was exercising control and monitoring activities via radio.

Search and rescue is something that New Zealanders do very well. In my opinion, the well-oiled efficiency with which this operation wheeled into action might be regarded as a model of its kind.

After 1.00 p.m.

By about 1.05 p.m. the vanguard of the rescue services was nearing Cave Creek. The phalanx of vehicles headed by ambulance 892 was headed up Bullock Creek Road, and Mr Cowan's helicopter was flying up the Pororari River from Punakaiki, the most direct route to Cave Creek. At 1.08 p.m. ambulance 892 stalled in the water across the road previously referred to. The water flooded an essential electrical component in the

engine and the vehicle could not be started until later when it had dried out. This halted the procession and there was a delay of a few minutes while the ambulance was pushed off the road. Remember that this was a narrow single vehicle carriageway. Ambulance Officers Ching and Klempel uplifted emergency equipment and a portable radio and set off on foot for Cave Creek.

Nothing whatever turns on this incident. It illustrates the difficulties with the terrain and access to Cave Creek and what might happen when a two-wheel drive road ambulance is taken into such an area. In my observation, there was no other place along Bullock Creek Road from State Highway 6 to the site subsequently set up as Forward Headquarters that would have been suitable as a helicopter landing and patient disembarking area. No one could have foreseen the state of the road. A muted attempt was made to persuade Mr Chatterton, the Regional Controller of St John, that four-wheel drive ambulances should be supplied for the West Coast. For what seemed to me to be eminently sensible reasons, he refuted this suggestion, pointing to the ready availability of local helicopters for transportation from sites that were inaccessible to road ambulances. The suggestion never re-emerged.

Mr Cowan was flying his Hughes 500D helicopter, which is not fitted with a winch but has a police radio set. Since then he has modified the right rear door which enables him in emergencies to carry a stretcher inside the helicopter. He had the advantage of knowing the site of the platform because he had flown in the building materials. On arrival he hovered above the resurgence and could see what had happened. He recognised Ms Slatter, whom he knew and whom he was aware had carried out first aid training. There was nowhere for a helicopter to land near the resurgence. He flew to the nearest convenient landing area on the four-wheel drive road at the junction with the Cave Creek track, that is, 10 to 15 minutes' stroll from the platform site. There he met Darren Gamble, who gave him a list of victims' names, which Mr Cowan told him to hand to the police when they arrived.

Mr Cowan then prepared his helicopter by offloading the scoop net and the doors, and then assembled and attached about 36 metres of rope and the rescue stretcher, plus a belly safety rope. The stretcher was of a Ferno-Washington type, well known for use in situations where an injured victim should be securely enclosed. He then flew to the site and lowered the rescue stretcher to the bottom, where it was detached by Mr Skilton and the others. Hovering above the track near the platform site, he lowered his crewman, Mr Savage, to the ground. The latter had to go down about 5.4 metres on the rope. Landing back at the track junction, Mr Cowan met Sergeant Kelly with Darren Gamble.

After meeting up with Mark Traynor at State Highway 6, Sergeant Kelly travelled with him and Constable Joyce, arriving at Forward Headquarters area about 1.15 p.m. There they saw the three vehicles which had been used by the party, the department's vehicle and the two polytechnic vehicles. Sergeant Kelly advised Greymouth Police Station by radio that he was then leaving his vehicle and proceeding to Cave Creek on foot, and the three men ran along the four-wheel drive track to the junction, where they met Darren Gamble and Mr Cowan at about 1.20 p.m. Sergeant Kelly was handed the list by Darren, who told him that the five people named at the top had survived but that the other 12 had no pulse and were dead. In the pressure of events in the resurgence, one name had been inadvertently omitted. Constable Joyce and Mark Traynor ran off along the track for the resurgence.

At 1.22 p.m. Sergeant Kelly, still at the junction, advised Greymouth Police by radio that the first injured person was to be lifted out by Mr Cowan. At 1.24 p.m. he advised Greymouth Police Station by radio that he understood that there were 12 dead and five injured, and was told that the Westpac Rescue helicopter and the RNZAF Iroquois helicopter were en route. Sergeant Kelly was not told about the impending arrival of ambulances. Constable Joyce and Mr Gamble, running to the site, arrived near the platform in time to see Mr Savage lowering himself to the ground. At the site Constable Joyce gave his radio to Mr Savage so that he and Mark Traynor could keep in radio

contact with Sergeant Kelly at the junction site. Radio communication would have been impossible from within the resurgence.

The Arrival of the First Ambulance Officers

At that stage Mr Cowan had returned, having dropped the stretcher in the resurgence. As is customary, he left the helicopter running and got out to speak to Sergeant Kelly. The helicopter was facing east, i.e. its running tail rotor was pointed in a westerly direction down the four-wheel drive track toward the Forward Headquarters area. He explained what he had seen in the resurgence and what he had done, and together they made the decision to fly injured survivors to the end of the Bullock Creek track at the Forward Headquarters area, as there was ample room for helicopters to land and for vehicles to park. As they were speaking they saw Ambulance Officers Klempel and Ching approaching along the track at the end of their 20-minute run from the flooded ambulance. What occurred next was the subject of some controversy at the hearing and I therefore record their respective accounts from the evidence.

Mr Cowan, a very experienced helicopter pilot on the West Coast, with many years involvement in search and rescue work using his helicopter, said:

> While I was talking to Sergeant Kelly I saw two St John Ambulance staff coming along the track towards where we were standing. They were dressed in a uniform. They were approaching the rear of the helicopter where the tail rotor was spinning, that is they were running towards the tail rotor. I moved towards them to wave them clear of the tail rotor and at that time said to them to go back to the end of the Bullock Creek track as I was going to fly the injured persons there. I was unaware at that time there were any other ambulance staff in the area as I had only seen the one ambulance on the main road.

Sergeant Kelly is a very experienced police officer with 15 years of search and rescue involvement. He had assumed his appointed role as Forward Headquarters Commander or Scene Commander. He said:

> Two ambulance staff came along the track towards the rear of the helicopter. They were waved clear and then spoken to by Chris Cowan, who went down the track to meet them. I was concerned for their safety as they were approaching the helicopter from the rear on a narrow track. I waved them away.
>
> I spoke to the ambulance personnel but can't recall what I said. I was surprised to see them there and was unaware of any support for them. The helicopter went to pick up the survivors. I expected an injured victim out within two or three minutes.

He also said he was surprised to see the ambulance personnel there so soon, as he was, later, to see the number of ambulances at Forward Headquarters.

Mr Ching is a volunteer St John Ambulance officer from Greymouth. He has been involved with St John for over seven years and holds the ambulance qualification of proficiency officer. He said

> We continued down the track until we saw Chris Cowan's helicopter. I saw Chris Cowan talking to Sergeant Kelly of the Greymouth Police. I could see that a scoop net was lying on the ground and the helicopter was idling. I approached Sergeant Kelly and sought further directions but he informed us that we were to go back to the end of the road as the patients were to be flown out to us. We accepted this at the time. However I was concerned as I knew there were no ambulance staff at the accident scene because we were the first to respond.

Ms Klempel is a volunteer St John Ambulance officer from Greymouth, who has been

involved for the last two years. She holds the qualification known as elementary. She said:

> Andrew Ching and myself continued down the track for approximately five minutes and then came across Chris Cowan and his helicopter who was having a discussion with Sergeant Kelly from the Greymouth Police. We approached the policeman and Andrew Ching asked for more information and direction. I heard the officer say to Andrew Ching to go back to the start of the track and wait for the patients to be air lifted to us. At that time I thought that the officer's request was unusual as we had gear and equipment with us and we had been told that people had been injured. I also know that we were the first ambulance officers to arrive.

There is no argument that it was impracticable for Mr Cowan to attempt to fly ambulance officers into the accident scene. It would have been dangerous to attempt to drop inexperienced people by rope into the resurgence or in the vicinity of the platform. The quickest way for ambulance personnel to reach the resurgence was to proceed directly along the track on foot with all speed.

Now, as it turned out, Mr Ching and Miss Klempel in fact returned on foot to Forward Headquarters where, by that time, other ambulances had arrived. There was a dispute about timing, but that was allayed when counsel for the police conceded that the effect of Mr Ching and Miss Klempel being diverted back to the Forward Headquarters area and not permitted to proceed to the resurgence delayed the arrival of qualified St John personnel in the resurgence by between 10 and 30 minutes. That made no material difference for any of the survivors.

Mr Cameron, for the victims' families, characterised Sergeant Kelly's directions to the ambulance officers as an error of judgment. Having heard the evidence and having seen the witnesses and observed their demeanour, I do not accept that. The police are

in overall control of an SAR operation, but St John personnel are responsible for decisions about medical care. Where practicable, it is most desirable that injured patients be stabilised by qualified medical personnel before they are moved. Sometimes that is simply not practicable -- the person trapped in a burning car, for example. So, it is always a matter of making the best possible response under often difficult circumstances.

I accept Sergeant Kelly's evidence that he did not then know what other medical services were available. With the advantage of hindsight, he perhaps ought to have been alert to the fact that the presence of ambulance officers on foot foreshadowed the imminent arrival of ambulances. I find that he simply did not turn his mind to that. Nor do I make any criticism of Ambulance Officers Ching and Klempel. They are volunteers who give freely of their time to carry out an inordinate amount of ambulance work on the West Coast. I accept that both of them deferred to Sergeant Kelly's authority. Again with hindsight, perhaps they could have been more assertive about how soon the ambulances would arrive, but then they were not to know what had happened back where the ambulance had stopped and blocked traffic. As noted previously, Mr Ching had equipped himself with a portable radio but he never attempted to communicate with an ambulance. Even if he had, he might not have succeeded in making contact. What the incident highlights is the lack of communication facilities available that day -- both St John to St John and Police to St John. I shall say more about that later.

And so, based on the limited information available to him, Sergeant Kelly had to make a judgment. He knew that Mr Cowan had dropped the stretcher and was preparing for immediate take-off to recover it with the first survivor. He understood that access for ambulance personnel could most readily be achieved on foot some minutes away. Mr Cowan's evidence was that often, when he is involved in rescue operations with his helicopter, the first priority is recovering victims rather than transporting medical personnel to the site. Given that, where practicable, a victim should be stabilised by qualified medical personnel before being moved, Sergeant Kelly could arguably have

made the decision the other way. If so, however, he could later have been criticised if the ambulance personnel were not then on hand at Forward Headquarters to receive the patient. I conclude that, in the circumstances, it was not unreasonable for Sergeant Kelly to reach the decision he did.

About 1.45 p.m. Constable Joyce arrived in the resurgence and quickly assessed what had happened. He was joined shortly by Mark Traynor, who had been called down to the resurgence by Mr Skilton because more people were needed at that stage. Those already there had found it necessary to detach the stretcher from the helicopter rope because the relatively short length of rope meant that the helicopter was hovering barely above tree-top level and the noise, downwash and movement made it impossible for them to consider moving one of the injured to the stretcher without first detaching the stretcher. Mr Cowan returned in the helicopter to the junction (one or two minutes' flying time away) so that they could load the stretcher. I shall shortly return to what then occurred at the junction.

The Moving of the First Survivor

Ms Slatter, Mr Skilton, Leanne Wheeler and Constable Joyce then had to make the difficult decision about who should first be put on the stretcher. They decided that, although Stephen Hannen was still alive and seemed to have the most serious injuries, he should not be moved. Although they did not have the expertise to decide whether he had spinal injuries, they elected to take a cautious approach and assumed that he might have. Having heard the evidence, I am completely satisfied that they made the correct decision. No one has suggested that they did not. They then considered Scott Murray, who was still alive. He was conscious and talking; they assumed he had suffered internal injuries and he complained of injuries to his shoulder. He complained of being in pain and kept wanting help to sit up and tried to sit up himself. Leanne Wheeler spent a lot of time with him. She held his hands for long periods. His grip was

normal but he said that sometimes he could feel her hands and sometimes he could not. His voice and conversation were completely normal and once when she was holding his hands, he asked her to take her hands off his chest. He also wanted his pack removed but he was not wearing one. As the medical evidence later revealed, these were not unusual symptoms given the critical seriousness of his injuries.

The four of them made the decision to have Sam Lucas lifted out first. The stretcher could be got to him most easily and they thought at the time that his injuries appeared more serious than Scott Murray's. Having braced his neck, with the help of Mark Traynor they lifted Sam Lucas onto the rescue stretcher, Constable Joyce called out to Mr Savage at the platform site above to radio for the helicopter which arrived soon after, the stretcher was connected to the rope and Sam was lifted from the scene and taken to the Forward Headquarters area, arriving there about 1.40 p.m.

At the resurgence, while Sam Lucas was being evacuated on the stretcher, Scott Murray became loud, agitated and began convulsing. Ms Slatter then saw that he had stopped breathing so she, Mr Skilton and Constable Joyce used her CPR kit and worked on Scott for perhaps five to 10 minutes. Sadly, throughout this time there was no sign of any pulse or breathing and the three of them collectively agreed to cease CPR. There can be no criticism of any of them regarding this, and none was suggested. I conclude they did everything they possibly could. They decided to send Carolyn Smith out next and she arrived at Forward Headquarters in Mr Cowan's helicopter at 1.56 p.m. Just after Carolyn was lifted out, Constable Hendrickson, with the Alpine Cliff Rescue Team, having picked up Ambulance Officers Ching, Klempel and Rodger at Forward Headquarters, arrived at the resurgence. Constable Joyce briefed them on the position and the St John staff began to check the remaining seriously injured victim Stephen Hannen. Mr Savage, deciding that he was now superfluous to requirements, walked out, taking with him Leanne Wheeler, who had understandably become overwhelmed by events.

The Westpac helicopter arrived at Forward Headquarters at approximately 1.55 p.m. where Sam Lucas was checked by Mr Roper, and about 2.00 p.m. Messrs Roper and Beaumont were winched down from the helicopter into the accident area, where they attended briefly to Mr Mitchell but predominantly to Stephen Hannen. Officers Klempel, Ching and Rodger rechecked all of the other victims to confirm death. At that time the Iroquois helicopter was nearing Cave Creek.

And so by 2.00 p.m. the first two survivors had been airlifted out where they were being cared for by qualified ambulance personnel at the Forward Headquarters area; qualified ambulance personnel were at the accident scene dealing with the other two survivors; there were plenty of support services available at the Forward Headquarters area; two helicopters were working in the area and the arrival of the third and largest was imminent, the Iroquois having notified Greymouth Police Station at 1.58 p.m. that it would be in the vicinity of Cave Creek by 2.10 p.m. which it was.

The Westpac Helicopter -- Qualified Medical Assistance?

Remember that at 12.30 p.m. St John Ambulance at Greymouth had advised Grey Base Hospital of the accident and at 1.04 p.m. the Westpac helicopter had left Christchurch carrying St John Ambulance medical staff. Mr Paul Burns was also an operations supervisor at Christchurch RCC on duty that day. At 1.19 p.m. he observed a discussion between another supervisor, Mr John Sneesby, and Grey Base Hospital concerning whether the Westpac helicopter should be diverted to the hospital to uplift a doctor. They discussed this request with Mr Wright. The request was regarded as unusual because it was not normal practice, once the helicopter had departed, to divert and pick up passengers, including doctors. They all felt it would not be appropriate in this case, first because there would be a considerable delay in arriving at the scene and second because there was insufficient space in the helicopter to accommodate another passenger so either rescue equipment or ambulance personnel would need to be dropped off to make way and third because the viable alternative of taking a doctor to

the incident site by ambulance, would not make much difference in arrival time. Mr Sneesby took the view that St John's primary objective was to get its own resources to the scene.

Dr Sexton gave evidence. He is employed by Coast Health Care Ltd as a whole-time specialist general surgeon at Grey Base Hospital. He is a member of the Royal Australasian College of Surgeons New Zealand Trauma Committee which, in 1994, wrote a report to the Ministry of Health entitled *Guidelines for a Structured Approach to the Provision of Optimal Trauma Care,* concerning trauma structures and procedures in New Zealand. In 1992 he wrote a paper about trauma retrieval on the West Coast. He first heard of the accident around 12.40 p.m.; by 1.00 p.m. the area had been identified, and he had been informed that two helicopters had been despatched from Christchurch with paramedics and that road ambulances had been sent from Greymouth. When he asked about the best way of getting a medical team to the site, he accepted the St John Ambulance decision about not diverting the Westpac helicopter and calculated that the Christchurch team would reach the site about the same time as any ground party sent from Greymouth. Accordingly he decided there was no point in sending a ground team. As will be seen later, the expert evidence was that the addition of a qualified medical doctor to the rescue team would have been unlikely to have affected the quality of care received by the survivors both at the accident site and at Forward Headquarters. Dr Sexton accepted that proposition.

After 2.00 p.m.

The full weight of the rescue and medical services was now available at the scene and the rescue of the two remaining survivors and the subsequent removal of the bodies of the dead proceeded smoothly.

A decision had to be made about where to take the injured and the dead. At first it had

been assumed that Grey Base Hospital would not have the resources to cope with what was initially thought to be 20 injured people. Once the actual numbers had been clarified, Dr Sexton directed that the injured were to be taken to Grey Base Hospital for initial assessment and would then be treated there or sent on to Christchurch Hospital for specialist treatment as was appropriate. The dead were taken to the temporary mortuary set up at Grey Base Hospital. There was no criticism of that decision.

At 2.12 p.m. Mr Cowan left from Forward Headquarters for the resurgence, intending to uplift the third injured victim, but he was interrupted by the arrival overhead of the Iroquois helicopter, which he directed to the scene. At 2.17 p.m. he then airlifted Stacy Mitchell from the resurgence and took him to Forward Headquarters, where he was attended to by ambulance officers. At the same time Constables Hamilton and Coll and Messrs Graham MacQuilham, Stuart Robinson and Andrew Mauger of the Alpine Cliff Rescue Team left for the resurgence and Sergeant Kelly reported to Greymouth Police Station that all available rescue workers were now employed either on the site, at Forward Headquarters or in the air. At 2.20 p.m. the decision was made to transport Carolyn Smith to Grey Base Hospital by the Westpac helicopter, while the Iroquois took Stephen Hannen to Forward Headquarters, attended by Ambulance Officers Roper, Hay and Higgins. At 2.25 p.m. Stacy Mitchell and Sam Lucas were taken by ambulance to Grey Base Hospital. Greymouth Police were advised by radio and in turn notified the hospital.

At 2.29 p.m, three hours after the collapse, Mr Skilton and Ms Slatter walked out from the resurgence, the last of the injured having been airlifted out. It is appropriate here to include Ms Slatter and Constable Joyce in the accolades already bestowed. Their contributions, too, were of the highest order. Sergeant Kelly reported to Greymouth Police Station that all the injured had been rescued. Thereafter the operation proceeded to photograph the scene, to confirm the number of the dead, to check for identification and then airlift out the bodies. This process was interrupted when, at 2.50 p.m., the Iroquois left the Forward Headquarters for Grey Base Hospital carrying

Stephen Hannen. At 2.55 p.m. the Westpac helicopter delivered Carolyn Smith to the hospital. At 3.00 p.m. specialist medical and anaesthetist staff arrived at Grey Base Hospital by air from Christchurch; at 3.05 p.m. the Iroquois helicopter arrived at the hospital with Stephen Hannen; the Westpac helicopter returned to Forward Headquarters at 3.15 p.m; hearses were sent to Forward Headquarters; the Iroquois returned to Forward Headquarters about 4.00 p.m; and at 5.11 p.m., after making four trips to the site, the Iroquois delivered the last of the bodies to Forward Headquarters.

At 5.15 p.m. an ambulance with the first three bodies arrived at Grey Base Hospital; and at 5.20 p.m. ambulances and hearses with the other 11 bodies left Forward Headquarters for Grey Base Hospital, the last of them arriving at 6.15 p.m.

Six hours had passed since the alarm had been given. Remember that this accident occurred in a location at least one hour distant from Greymouth by ground travel using all reasonable speed. I have made certain criticisms, which I shall return to again under lessons to be learned, but, having sat and listened to and gained the flavour of the evidence, I am satisfied that overall the rescue and recovery effort was a superb example of co-operation. Everyone involved should be congratulated on a difficult job extremely well done. As Mr Cowan put it, "nothing is normal in search and rescue."

Chapter 4

Identification and Notification

Clause (ia) (iv) of the terms of reference required me to consider and report on the action taken to identify those who died or who were injured in the collapse and to notify their next of kin.

Police General Instructions (a document that provides general guidelines for police officers in relation to all manner of situations) contain a provision that no formal police notification of death is to be made until formal identification of the body and relevant documentation has been completed. I emphasise that is a guideline. As Senior Sergeant Richard Smith explained in evidence

> Our administrative guidelines and general instructions say that preferably you have a formal identification completed before notification is done. However, in some circumstances there may be other information available which means that the officer himself is aware that the person is who we believe he is, before we have completed the formal identification.

But in this case, as Senior Sergeant Smith explained, the police knew that there were other school parties in the Punakaiki area that day and he was not himself certain of the identification of the Cave Creek party as a class. All police staff at Greymouth that day (perhaps 12) were very actively involved in other priority tasks relating to the disaster; it would simply have been unsafe and unreliable to attempt any formal notification to next of kin until identification and relevant documentation had been completed. That philosophy was echoed by Senior Sergeant Deazley who, very properly in my view, emphasised the need to ensure that information, when released, was accurate.

This was generally agreed to be the appropriate guideline procedure to follow in cases

of accident or disaster. Starting from that agreed baseline, the nature of the problem is easy to identify, but is by no means easily resolved. Word of the Cave Creek disaster was out through the media almost immediately after the 111 call at 12.16 p.m. The reasons for that will shortly appear.

Identification and documentation of the first three victims was completed by about 6.00 p.m. and those of the remaining 11 bodies by about 8.00 p.m. There is no quarrel that all of those procedures were carried out properly. Only then were the police in a position to begin making formal notification to next of kin. Although, as will be seen, some of the subsequent notifications were not made as soon as they should have been, it is the issue of what was done or what ought to have been done in relation to notification to next of kin during those intervening seven and a half hours which, it seems to me, is the real issue and one that is very difficult to resolve.

The Media Response

As would be expected, a disaster of this magnitude attracted intense media interest. Some organisations anticipate such a reaction. The New Zealand Fire Service, for example, has a system where, once it has been called to a situation that will interest the media, it issues a brief press release outlining such details as it thinks appropriate. In this way it hopes to divert or lessen incoming calls that block lines required to cope with the emergency. But, with the use of radio communications, so essential to emergency services, every communication is essentially made in public, since anyone with an appropriate receiver can listen in.

After the collapse, the police, St John RCC, Tai Poutini Polytechnic, the Fire Service, various department offices, including the Punakaiki Visitor Centre, and Grey Base Hospital were deluged with calls not only from the media but also from anxious and concerned relatives. So intense did the pressure become that, later in the day, the

telephone system at the Greymouth Police Station apparently collapsed under the load.

This intense activity did not impede the smooth flow of the rescue service, but it did heighten the anxiety of those waiting for news of their family members.

In his closing submissions in relation to this part Mr Cameron, on behalf of the families, suggested that the expression "to notify" within the terms of reference is not limited to notification of death but also covers notification of a relative's involvement in the accident. Although I believe that arguably he is wrong, it is appropriate to cover the ground in any event, because there are some lessons to be learned. It is necessary, however, to record what was often repeated at the hearing: that no two accidents or disasters are ever the same, and that it is extremely difficult to establish any form of guideline for dealing with anxious relatives.

Radio and television reports followed during the afternoon and there was a widely held perception among the relatives concerned that a 6.00 p.m. news telecast indicated that 14 were dead and that all next of kin had been formally notified.

The Police Response to the Issue of Notification

In these circumstances the police are responsible for notifying the next of kin of death.

Once the rescue services were under way Senior Sergeant Deazley prepared a plan based on the information he then had regarding the number of injured and dead at the scene. His plan comprised five phases for the remainder of that day: first, to establish, then consolidate and co-ordinate the rescue operation by 2.00 p.m; second, to rescue the injured as soon as possible and transport them to Grey Base Hospital; third, to recover the bodies of victims before dark and take them to the hospital; fourth, to carry

out mortuary procedures and identify victims as soon as possible, preferably by 7.00 p.m; and, finally, to notify next of kin as soon as identity was confirmed, beginning those notifications as soon as possible.

As has been mentioned, the original plan was that the Iroquois helicopter would transport the bodies of the dead, but that plan was delayed by about one and a quarter hours because the Iroquois was needed to transport Stephen Hannen to the hospital. The alternative of using Mr Cowan's helicopter to recover bodies using a long strop and rescue stretcher was considered but rejected, because of the need for appropriate privacy and dignity.

About 12.45 p.m. Senior Sergeant Deazley briefed Senior Sergeant Smith and appointed him as the Liaison Officer for the Tai Poutini Polytechnic, the hospital and the department. Thereafter Senior Sergeant Smith played a very full role engaged on those tasks, and also arranged for assistance from the Victim Support Group and made the necessary arrangements. At 1.30 p.m. he went to Tai Poutini Polytechnic where he officially advised the administration of what had occurred and that his information then was that 12 people were dead and five needed immediate evacuation. He arranged for a senior polytechnic staff representative, Dr Caroline Seelig, to go to the hospital. He also obtained the class list, which matched the list that the police had received from the Punakaiki Visitor Centre, an informal class photograph with names and the class enrolment forms that contained emergency contact details and permanent addresses. He also arranged for the Head Tutor of the Outdoor Recreation Students, Mr Stuart McGowan, to attend identification of the victims later in the day, and for Victim Support personnel to travel to and support staff at the polytechnic. He also advised the polytechnic staff of the names of the survivors as soon as he knew them. He then returned to the police station and reported to Senior Sergeant Deazley, before speaking by telephone to media and others, including parents from other school field trips at Punakaiki, next of kin, next of kin of other polytechnic students and overseas callers regarding holidaymakers.

Senior Sergeant Smith then returned to the polytechnic and told Mrs Skilton that her husband had not been injured but asked polytechnic staff not to release information about the names to the media. At 2.30 p.m. he went to the hospital where he spoke to senior hospital staff, and gave them as much information as he could. Because he had only an unconfirmed list of victims, he was unable to give information to those who were telephoning and asked the hospital not to release names at that point. During the course of the afternoon he shuttled between the polytechnic, the police station and the hospital, where he was present when the first ambulance containing bodies arrived. Later, at the hospital, he and other police officers had to divert people with cameras and to ensure the security of the temporary mortuary to avoid intrusion.

About 6.45 p.m. he went to Tasman House at the hospital, where next of kin and friends had gathered. His evidence was that he gave them as much information as he could, consistent with police guidelines. Senior Sergeant Smith impressed me as a decent man doing his best to deal with a very difficult situation at a time of high emotion and while having to keep police protocol firmly in mind. The police very fairly made no bones about this dilemma. In his final submissions Mr Stanaway said "it is accepted that there was a paucity of information supplied to the families prior to official notification". During that time at the hospital Senior Sergeant Smith had in his possession a tentative list of the dead and injured. (The list was accurate, but I describe it as "tentative" because formal identification had not yet been made.) The evidence was that list was seen by at least one relative. Torn by this conflict, Senior Sergeant Smith was adamant that he did not actually give the list to anyone, and I accept that; but also it is clear that more than one person saw it. That is entirely understandable and I make no criticism. What the incident does demonstrate is the very real difficulty both police and relatives face in this kind of situation.

Another difficulty highlighted was that posed by telephone calls to the police from people claiming to be family members. Clearly, the police have to be very careful in such a situation. Mr Cameron suggested one possible solution to the problem of

proving the identity of a telephone caller: that the caller be directed to his or her local police station with proof of identity. There may be other ways of dealing with the matter. I propose to make that the subject of a recommendation.

During the day the police made five media releases and the polytechnic and the hospital each made a number. But the overall thrust of the relatives' complaint during this stage of events was that they were being told nothing -- that is, that the police could not divulge any information until the requisite procedures had been carried out. It may be that, in preparing an overall regional disaster plan (which I shall deal with later), a provision could be included to release early general information about a disaster to victims' relatives who have identified themselves to the satisfaction of police. Enquiries would be directed to a nominated police liaison officer or officers. There should be arrangements to notify families of progress in relation to the rescue and the identification of the status of victims, and members of victims' families should be given access to Victim Support personnel arranged by the police. In other words, anxious next of kin and relatives should be accorded the first priority. In my opinion, their need to know is more important than that of the general public.

I intend no criticism of the police in this regard, but simply draw attention to these matters. They are complex and require careful consideration and, if thought fit, should be implemented by people with the appropriate skills. I repeat that no two emergencies are the same. Adequate communication must be maintained because the lack of communication causes additional distress and frustration to people who are already distressed. In retrospect, the police acknowledge that they could have released the names of all those who were confirmed to have been on the Cave Creek trip. By a process of elimination, this would soon have shown which victims were dead, but again it is arguable, in the case of any particular relative, whether this would have been an advantage. That serves to highlight the dilemma.

I conclude that this whole issue requires wider analysis and consideration than is

appropriate to give here and I will make recommendations to that end. Perhaps a multi-disciplinary approach is needed. Whatever the case, the issue must be tackled in an open-minded manner.

Notification to Survivors' Next of Kin

In the case of the four survivors, appropriate next of kin were notified of the victims' predicament as soon as practicable.

Stephen John Hannen

Stephen's parents live in Nelson. Day telephone numbers for each parent were listed at the polytechnic together with a night telephone number. Stephen arrived at Grey Base Hospital at 3.05 p.m. and soon after a telephone message was left at the parents' home for them to contact the hospital, which they did at 5.17 p.m.

Stephen submitted a written submission which made poignant reading. He is now a tetraplegic and has suffered all the mental anguish that this must inevitably cause a very fit and active young man. He was disturbed about the time taken before medical assistance arrived at the resurgence, the lack of effective communication between the various rescue services and the lack of ambulance records passed on to the hospitals, which, he said, has delayed his recovery programme. (The terms of reference do not allow me to deal with the issue of his treatment once he reached hospital.)

Mr Lynn Hannen, Stephen's father, was particularly concerned about whether his son's treatment on being admitted to Grey Base Hospital and subsequent discharge and transfer by air ambulance to Christchurch Hospital and treatment there was adversely affected by a breakdown in communication between the St John Ambulance personnel who attended him first in the resurgence, and then at Forward Headquarters, and the

doctors who subsequently treated him at the hospitals.

Stephen suffered very serious head, spinal and internal injuries. In the resurgence Ms Slatter had assessed him to the best of her ability. She examined his head (which had been dressed to prevent foreign material entering wounds) and checked his pulse. She talked to him and noted that he could move one arm but didn't appear to be capable of any movement from the lower chest down and noted that "his stomach was starting to bulge out a little bit". When Ambulance Officer Rodger examined Stephen in the resurgence about 2.00 p.m. he noted that he "had a very serious head injury plus probable spinal, chest and jaw injury". He assisted Ambulance Officer Ching to put a cervical collar on him. Mr Rodger was apparently the only medical officer on the day who noted the likelihood of a broken jaw.

When Paramedic Roper from Christchurch was being winched into the scene about 2.00 p.m. he suspected that Stephen had spinal and chest injuries and perhaps rib fractures with complications, noted the likelihood of limb fractures and decided he must be lifted out as soon as possible for further treatment. He thought that a dead body was lying across Stephen's legs but, as previously mentioned, I prefer Ms Slatter's evidence that that was not the case. The evidence of the other paramedic, Mr Beaumont, who arrived at the same time, was that "the scene was a sobering one. There were many twisted bodies with no activity around them." Given the paramedics' sudden arrival upon that scene, I conclude that Ms Slatter's recall in that regard is more accurate than Mr Roper's. His evidence was that, after Stephen Hannen was airlifted out to the Forward Headquarters area, he was treated on the ground for about 15 minutes before being loaded onto the Iroquois and transported to Grey Base Hospital. At the Forward Headquarters area he did not notice any observable extension of Stephen's stomach although he was aware that Mr Ching had pointed out rigidity in that area, which alerted Mr Roper to the possibility of internal damage.

It is appropriate here to refer briefly to the issue of ambulance notes -- the written

records, however brief, made by ambulance officers about a particular patient, recording observations about the patient's condition upon initial and subsequent assessment while in care of St John Ambulance. Remember, however, that this was a rescue operation carried out at speed. It was accepted by Mr Neave, on behalf of St John, that no such notes that day were made in respect of Stephen Hannen. Notes were made about Carolyn Smith and Stacy Mitchell and apparently passed on to medical staff at Grey Base Hospital. Notes were made in relation to Sam Lucas but were not found later at the hospital.

Mr Lynn Hannen's concern, understandably, was that the absence of any ambulance notes may have contributed to what he perceived as later difficulties regarding his son's treatment at Christchurch Hospital. As indicated, the issue of his treatment following admission to Grey Base Hospital is not for me to consider, but it is appropriate to record the issue of the notes which I shall return to when dealing with the expert medical evidence.

Samuel John William Lucas

Sam's father lives in Christchurch and his telephone numbers were listed at the polytechnic. Sam arrived at the hospital at 4.20 p.m. and a message was immediately sent to Mr Lucas through his pager to contact Grey Base Hospital urgently. He did so at 4.29 p.m.

Stacy Cameron Mitchell

Stacy's parents live at Maungaturoto and their day and night telephone numbers were listed at the polytechnic. Stacy arrived at the hospital at 4.20 p.m. but before that his parents had been telephoned by Ms Robin Williams from the hospital, advising that Stacy was injured and on his way to the hospital.

Carolyn Rose Smith

Carolyn's father lives at Runanga and her mother at Coal Creek and works at Punakaiki.

No details had been provided for the polytechnic records. Carolyn arrived at Grey Base Hospital at 2.55 p.m. but her mother had been informed of her condition by an ambulance officer at the Bullock Creek Road entrance on State Highway 6 shortly after 3.00 p.m.

Formal Identification and
Certification of Death of the Deceased

At 5.30 p.m. the first three bodies (Alison Robyn Blackman, Abram Anthony Larmour and Matthew Brydon Reed) were placed in the temporary mortuary and identified by Mr McGowan, a tutor from the polytechnic. They were formally certified as dead by Dr Hugh Bodle. At 6.15 p.m. the remaining 11 bodies arrived and were also received into the temporary mortuary by Senior Sergeant Rose. They were all formally certified as dead by Dr Bodle and were then prepared for identification. They were dealt with three at a time, with each of the three victims taking approximately 20 minutes to deal with. The whole process took about one hour to complete and they were dealt with in the following order: Barry Peter Hobson, Scott Andrew Murray, Anne-Marie Olive Cook, Jody George Davis, Catherine Francis McCarthy, Peter Andrew Shaw, Stephen Mark O'Dea, Kit Buster Pawsey, Evan David Stuart, De Anne Reid and Paul Parker Chisholm. Mr McGowan was able to identify all the bodies except for Stephen O'Dea, whose body was identified by his mother at 7.30 p.m.

Notification of Next of Kin of the Deceased

At 7.00 p.m., with identification and documentation in respect of several of the deceased completed, Senior Sergeant Smith, assisted by Sergeant John Torrance, began to send messages to police stations nearest to the permanent address or emergency contacts listed on the polytechnic enrolment forms. This took about half an hour. The messages requested the recipient stations to notify the next of kin or other listed person of the death and, where no permanent address was given, the request was that the listed emergency contact person be informed. Once the message had been sent, the list of victims was marked accordingly. Senior Sergeant Smith was by that time already aware that some of the next of kin knew of the death of some of the victims. Those were Mr and Mrs Reed in Christchurch, Mr McCarthy in Greymouth and Mrs O'Dea, also in Greymouth. Messages were not sent in respect of those victims.

As the remaining identifications and documentation were completed at the hospital Senior Sergeant Smith was advised and the final message to the relevant police station was sent at 7.25 p.m..

First I deal with the position concerning each of the deceased in the order previously set out. At the hearing, in each case an affidavit by an immediate family member of a deceased victim was read and Senior Sergeant Deazley, who had read the documents, responded where appropriate. In some cases there are minor evidential conflicts that it is unnecessary to resolve. Given the concerns raised by family members, I believe it appropriate to deal with each case in some detail. Where appropriate, I shall add a comment.

The polytechnic enrolment forms were produced in evidence. This information was made available to the police. Each student has recorded his or her personal details on the front of the form. The obverse side contains four boxes with provision for the following details: A, permanent address; B, business contact (if applicable); C, address during term; and D, emergency contact. In every case, bar two, an emergency name

and address had been provided.

Alison Robyn Blackman

Alison's father lives in Hamilton and her mother in Christchurch. Mr Blackman's name was not listed as a contact person at the polytechnic and no emergency contact details were completed. The message to the local police station in Christchurch was sent at 7.00 p.m. and to Hamilton at 7.11 p.m.

Mr Blackman returned home from work about 5.30 p.m. on the day and read about the disaster in his local newspaper. No names were mentioned but it was recorded that there had been deaths and injuries and that polytechnic students were involved. He immediately telephoned Mrs Blackman in Christchurch, who could tell him no more than he already knew. He received a similar response from both the hospital and the police in Greymouth. Some time after that Mrs Blackman telephoned him to advise that Alison had died. Between 7.00 and 7.30 p.m. two policemen arrived at Mr Blackman's home in Hamilton and confirmed the death. He was concerned that he became aware of the disaster through the media, but accepted the importance of accurate identification before notification.

Comment: Given that Alison was among the first identified, hindsight would suggest that notification could have been begun more quickly. Given that Mr Blackman's name was not listed and there were no emergency contact details, it is understandable that the process would have taken longer than usual, but just how the police were able to connect the deceased to Mr Blackman is unclear from the evidence.

Abram Anthony Larmour

Abram's parents live in Vancouver, Canada. It is not known what details were on the relevant polytechnic form. A message was sent from Greymouth Police at 7.05 p.m.

Mr Larmour said that two policemen from the Vancouver Police came to the family home at 5.45 on the morning of 28 April, which was 12.45 a.m. in New Zealand on 29 April. Mr Larmour said in his affidavit

> They advised Abram had been killed, that there was no doubt about the situation and they were able to give a good account of the circumstances. These policemen were trained in notification to families on deaths and were excellent. They had details of people we could approach if need be, including victim assistance programme. They specifically told us that it is one of their objectives to make sure that families find out before reports are heard in the media and that they do not give such news out over the phone. Media reports of the accident came through in Canada at 7.00 am that morning.

Matthew Brydon Reed

Matthew's parents live in Christchurch. It is not known what details were included on the polytechnic form. A message was sent to the Christchurch Police Station by the Greymouth Police at 7.02 p.m but the parents were already at the Grey Base Hospital and were notified at, 7.00 p.m. Early in the afternoon of 28 April Mr Reed was telephoned by a work staff member who alerted him about the accident and he telephoned the polytechnic, who told him that they could not help but that he should come over to Greymouth. He assumed (mistakenly) that Matthew must be involved in a search and rescue operation. They arrived at Grey Base Hospital at 6.30 p.m. and soon after were told by Ms Mary Gordon, a hospital staff member, that Matthew had not survived the accident. The police went to Mr and Mrs Reed's home in Christchurch about 8.00 p.m. that night. Mr Reed says he has no recollection of a police officer being present at the hospital until much later when they went to the morgue.

Comment: Given the circumstances of Matthew's earlier identification, notification could have been supplied earlier but of course by then the Reeds were en route to

Greymouth. Clearly there was at least one officer present at the hospital for much of the time but the two simply did not make contact. This highlights the need for careful liaison in these circumstances between police, hospital and families.

Barry Peter Hobson

Barry's mother lives in Cambridge but no details were supplied about his father. Barry's permanent address was listed as Taupo but his mother's address as the emergency contact. The message was sent to the Cambridge Police Station at 7.19 p.m. but the family was not notified until midday the next day in Cambridge. Police accept that notification was not timely and have apologised to the family.

What happened here was what happened in two other cases. As Senior Sergeant Deazley explained, messages are sent by means of what the police call a switch message, but it is simply an input at one computer terminal emerging at another. On the night of 28 April the computer terminal at the Cambridge Police Station had been left in "unattended mode" for the evening and the Cambridge Police first became aware of the situation about 10.00 the next morning and then took steps to notify the family.

Comment: There is a simple remedy to this. Police have already taken steps to see that this does not occur again, and I shall return to the point later.

Scott Andrew Murray

Mrs Lovell-Smith, Scott's mother, has remarried and lives in Christchurch. Another address was provided for his father. The details of the enrolment form are not known. A message was sent to the Christchurch Police at 7.25 p.m. and Mrs Lovell-Smith was notified at 7.45 p.m. Mrs Lovell-Smith learned of the disaster during the afternoon and, after hearing details around 6.30 p.m., she telephoned the number established at Grey Base Hospital but was told there would be no information available until 7.45 p.m. She

telephoned the hospital again at that time and was told that she could still not be told of the position but asked if she could confirm her address and if she had people with her. Detective Robert Brooke of the Christchurch Police is Mrs Lovell-Smith's brother-in-law. On hearing this he telephoned the Christchurch Police and was told that a message from Greymouth had just arrived confirming that Scott had died. He offered to carry out the notification to Mrs Lovell-Smith and did so.

Anne-Marie Olive Cook

Anne-Marie's mother is a widow and lives in Whangarei. She first heard of the accident about 2.30 p.m. from a friend who had been listening to the radio. Listening to further news broadcasts, she appreciated that Anne-Marie could be involved and, after a number of attempts, finally reached the polytechnic by telephone at 4.22 p.m. and was told that they could not say which group was involved but would ring back when they had more details. Mrs Cook telephoned her local police station. They knew nothing but suggested she should telephone the Greymouth Police. At 6.10 p.m. she again phoned the polytechnic and it was suggested that she should telephone the Grey Base Hospital. A friend did so at 5.22 p.m. and was told they could release no information. Another daughter, Casey, telephoned Mrs Cook at 7.12 p.m., telling her that the 7.00 p.m. news had said that all next of kin had been notified and therefore she should not worry because she had heard nothing. But Mrs Cook continued to have nagging doubts and kept telephoning her daughter's flat but gaining no reply. Casey Cook then telephoned Grey Base Hospital and was told that Anne-Marie's group was involved but no names were released and they were not able to say who the injured were. The police arrived at 7.45 p.m. and told Mrs Cook officially of Anne-Marie's death.

Comment: Again, Mrs Cook's principal concern was that Friday afternoon media reports had been providing increasing details about the accident but yet a parent could not obtain information of any substance from the polytechnic, the hospital or the police.

Jody George Davis

Jody's father and stepmother live in Wellington. Mr Davis was not listed by name but another Wellington address was listed in the polytechnic records. He arrived home from work around 5.30 p.m. that day just as a friend telephoned his wife and told her that there had been an accident on the West Coast, that 14 people were dead and it seemed polytechnic students were involved. They listened to the 5.30 p.m. radio news, which confirmed the involvement of polytechnic students. At 5.30 p.m. he telephoned the polytechnic hostel in Greymouth and it was suggested he telephone the hospital. His wife rang the Greymouth Police and asked whether Jody was among the Group B students who had been on the platform trip and it was confirmed that he was on that list. Asking if he was one of the survivors, she was told that he was not. She then asked if Jody was dead and the response was that she could not be told but should call back in two hours. Mr Davis telephoned the Greymouth Police at 6.08 p.m. and was told to ring back in two hours. Next he said he watched the 6 o'clock television news and heard that families of those who had died had been notified, which gave him the hope that, as he had not been notified, Jody might be alive. He telephoned Grey Base Hospital at 6.21 p.m. but they refused to confirm or deny that his son was dead, and at 6.44 p.m. he phoned the Greymouth Police again, but was given no further information. A relative was by now at the house constantly telephoning the Greymouth Police and seeking information and about 9.30 p.m. he was read a message by the police confirming Jody's death and was told that the police would visit shortly. At 9.35 p.m. a policeman arrived with official confirmation of Jody's death.

Senior Sergeant Deazley explained that one of the police difficulties was that the enrolment form did not list Mr Davis by name but gave another Wellington address.

Comment: Mr Davis' concern was that no one contacted him at all before the policeman arrived at 9.35 p.m., whereas he and others on his behalf had made all the phone calls to the Greymouth Police and media reports indicated that all next of kin had

been notified some three and a half hours before he was notified.

There is also a reference to Wellington Police records indicating that Mr Davis was notified about 8.45 p.m. and that the relative had been told during a phone conversation with the Greymouth Police about 8.30 p.m.

Catherine Frances McCarthy

Catherine's father lives in Runanga and her mother in Pahiatua. Ms Lorraine Capstick is Mr McCarthy's partner. Catherine had previously lived with her mother but had returned to Greymouth to live with her father and Ms Capstick while she attended the course. Both Mr McCarthy and Ms Capstick teach at the same school in Greymouth and were aware by about 2.15 p.m. that there had been an accident involving some polytechnic students at Punakaiki. By 3.00 p.m. the local afternoon newspaper had been delivered, announcing that 15 people had died in the accident, but staff at the school decided not to show this to the couple. Both of them went independently to the hospital. The hospital staff were unable to give them any information and they resorted to listening to radio and watching television. From the 6.00 p.m. television news they learned that a platform carrying 18 people had collapsed and 14 were dead. Their fears mounted when they gathered from comments from hospital staff that Catherine was not among the injured. At about 6.50 p.m. a police officer whom Ms Capstick did not know and whose name she could not recall came in with a list and said words to the effect that he was not meant to be giving it to them as it was not yet official. Ms Capstick read it. From the list it was clear that Catherine was among the dead. I infer that this was Senior Sergeant Smith reacting humanely by bending the rules in extraordinarily difficult circumstances. Ms Capstick told Mr McCarthy about the list some five minutes later. About an hour later, around 8.15 p.m., a senior hospital staff member formally told them of Catherine's death.

Mr McCarthy telephoned Mrs McCarthy in Pahiatua about 3.30 p.m., telling her that

Catherine had been involved in an accident, but was unable to provide any other details. After 5.00 p.m. a friend telephoned the Palmerston North Police, who confirmed a news report and told her that next of kin had been informed. Mr McCarthy phoned between 7.00 and 7.15 p.m. to tell her that Catherine had been killed.

Comment: Mrs McCarthy's concern was that she has had no official advice about her daughter's death. What happened was that Catherine's permanent address was listed on the polytechnic records as Mrs McCarthy's Pahiatua address, but only the bare address and not Mrs McCarthy's name. The police, understandably, being aware of Mr McCarthy's presence at the hospital and his notification, were unaware that it was Catherine's mother who lived at the Pahiatua address.

Peter Andrew Shaw

Peter's parents live in Wairoa. On 28 April both parents were in Napier in different locations. A daughter, Rachael, heard the news on the radio at 2.00 p.m. and telephoned her father, who discounted any possible involvement by Peter. He told Rachael not to bother his wife but requested her to go to their home as a contact point. Rachael did so and telephoned the polytechnic, finding that it was Peter's group which had been involved. On the 4.00 p.m. radio news Rachael heard that polytechnic students were involved and 14 had died. She told her father on his arrival home soon after. He telephoned the Greymouth Police about 5.30 p.m. who said they would let them know what had happened but they never telephoned back. From the 6.00 p.m. television news Mr Shaw and his daughter gained the impression that all families had been notified. That relieved them, although Mr Shaw was left with a lingering doubt because he was certain that if his son was all right he would have been in touch. He telephoned the Greymouth Police again. They took details and told Mr Shaw "they had to be sure and would get back to him" but they never did. He telephoned Grey Base Hospital about 8.30 p.m. and spoke to a woman whom he thinks was called Robin. (It was probably Ms Williams.) She informed him that nothing had been confirmed but she

did say, "I can't say but that you should not hold out any hope." Mrs Shaw arrived home about 9.00 p.m.

The Greymouth Police message had been sent to the Wairoa Police Station at 7.16 p.m. About 10.45 p.m. two senior police officers well known to the family arrived with formal notification. They explained that they had had the message on their computer for a short while but had been held up because of a local stabbing incident. The Shaws' concern was that 6.00 p.m. media reports indicated that all families had been notified and yet they were not advised until nearly five hours later. Further, police did not fulfil promises to respond to telephone calls.

The police explained that they spoke to literally hundreds of callers that afternoon and evening; they were simply unable to keep up. About 6.30 p.m. all Wairoa police had been required to attend a serious stabbing incident. The computer had been left in unattended mode and the police did not become aware of the relevant message until 9.30 p.m. and took immediate action thereafter.

Comment: The three-and-a-half hour delay was unacceptable.

Stephen Mark O'Dea

Stephen's parents live at different addresses in Christchurch. His mother rang his father in Christchurch around 2.30 p.m. as she had heard a radio report. Mr O'Dea listened to radio reports thereafter, but was not particularly concerned at that time. At 4.24 p.m. he telephoned the Punakaiki Field Centre and spoke to a department officer, was told there had been a terrible accident but that the officer was not allowed to tell him anything and that he should contact the police. From what was said, he gathered that Stephen had been on the trip to the platform. At 4.30 p.m. he telephoned the police but they would not tell him anything and said they would get back to him. At 4.38 p.m. he telephoned the Grey Base Hospital and asked if Stephen was on the list of those

killed but was told that he could not be given that information. Changing tack, he asked and was told, that his son was not listed as a survivor and that he should contact the police. He knew from media reports that there were only four survivors. He telephoned the police again at 4.42 p.m. but was met with the same response and did not hear from them again. At 4.55 p.m. he telephoned the Punakaiki Field Centre, asked the department's officer there to level with him and was told that Stephen was dead. Mr O'Dea is grateful for that. He then arranged to communicate with Mrs O'Dea, who he knew was on her way to Greymouth.

Mr O'Dea expressed similar concerns to many others: lack of information from the police despite media releases and no final official contact from the police.

Mrs O'Dea happened that day to be on a trip to Greymouth with five other women arriving by road about 5.00 p.m. She was told of the accident. Suspecting that her son might be involved, she went to the police station and identified herself, but they could tell her nothing, and she was sent to the hospital. There she was taken to Tasman House along with other relatives and asked to wait there, which she did for about two hours without being told anything more. About 7.30 p.m. she was approached by a police officer who asked her to identify a body thought to be that of Stephen. She did so.

Comment: The identification and notifications could have been carried out rather earlier if those in the mortuary had been aware of Mrs O'Dea's presence. Formal notification ought to have been made to Mr O'Dea.

Kit Buster Pawsey

Kit's parents live on a farm near Hawarden, North Canterbury. Mrs Pawsey had been in Christchurch that day and was first told about the accident around 6.00 p.m. by someone in the tearooms at Leithfield while she was on her way home. She

telephoned her husband, who had already been approached by neighbours who had come to bring him in off the farm. He had telephoned the police but had been unable to ascertain any information except that Kit was "on the list" but that did not really mean anything to them. After Mrs Pawsey returned to the farm the couple telephoned Greymouth every hour on the hour but the police would not tell them anything. About 9.00 p.m. Mr Pawsey finally persuaded someone at the Greymouth Police Station to confirm to him that his son was dead. Their local policeman, whom they know well, came to the farm about 9.30 p.m., apologetic that he had not been able to find out anything earlier or been able to tell them personally.

In her affidavit Mrs Pawsey expressed the couple's frustration as being that they had to wait too long, had to make all the enquiries themselves and could find out virtually nothing beyond media reports.

In his brief of evidence Senior Sergeant Deazley had responded to these concerns but at the hearing by consent that section of his evidence was deleted, because matters between the police and the Pawsey family had been resolved. I observed that Mr and Mrs Pawsey were in constant attendance at the hearing and I infer that they sensibly took the opportunity to discuss the matter with a senior police officer. In those circumstances I elect not to comment.

Evan David Stuart

Evan Stuart's parents live at Cable Bay on the coast north of Nelson. At 3.45 p.m. Mrs Stuart was told by her mother-in-law of "a bad accident on the West Coast". From the 4.00 p.m. radio news she became aware that 14 polytechnic students had died in an accident near Punakaiki. She immediately telephoned the Hannens and spoke to a person there, who told her that the Grey Base Hospital had been trying to contact the Hannens. Mrs Stuart was immediately aware that if Stephen Hannen was involved, then her son would be also. She telephoned Grey Base Hospital and was told that the

accident involved Evan's group. She identified herself and told them she knew that Stephen had been injured. She spoke to another person who told her that Evan was involved but that she did not know where he was and that someone would ring her again very soon. As Mrs Stuart put it, she is still waiting for that phone call. She got a message to her husband to return home. About 9.00 p.m. she telephoned the Christchurch police and was told that Evan was dead. She was also told that it was not normal practice to advise of death over the telephone. At midnight a policeman from Nelson arrived to tell them officially of Evan's death. She said that he was very kind and sympathetic.

In the last paragraph of her affidavit Mrs Stuart made this poignant point: "Ian and I feel that the whole of New Zealand knew of our son's death before we did."

Again, police enquiries showed that the police computer terminal at Nelson, where the message was sent, was in unattended mode and police staff there were unaware of the request until Greymouth Police telephoned them after speaking to Mrs Stuart. The police thought that the constable visited the family about 10.30 p.m.

Comment: The police accept that notification was not timely and have apologised.

De Anne Reid

De Anne's father lives in Christchurch and is remarried to Ms Christine Reid. Her mother lives in Blenheim. Mr Reid is a contract helicopter pilot who works in Malaysia. His father rang Mr Reid's manager in Sarawak about 9.30 p.m. New Zealand time on 28 April with the news of De Anne's death. He had no knowledge of the accident before that time and, under the circumstances, said that he has no concerns about notification.

De Anne's mother was in Wellington at the time of the accident and first heard about the

accident at 2.15 p.m. Following the 3.00 p.m. radio news, which identified a group of polytechnic students, she telephoned the polytechnic, who confirmed that it was De Anne's group. She telephoned her partner in Blenheim; he had already been in touch with the Blenheim Police who telephoned him back saying they could not tell him anything. After that she made tentative arrangements to travel to the West Coast, first ringing the Wellington and then the Greymouth Police, who were unable to tell her anything. She gave the Greymouth Police permission to tell a good friend, Ms Flora Beynon in Greymouth, anything she wanted to know; meanwhile her partner was continuing enquiries unsuccessfully through the Blenheim Police. She flew to Blenheim, arriving at approximately 7.35 p.m. About 9.10 p.m. she and her partner tired of waiting and went to the police station in Blenheim where they camped and said they were not leaving until they were told something. They were informed that the police had just received a fax and gave it to them to read. It said that De Anne was dead. De Anne's mother thought the fax message was timed at 9.17 p.m., whereas the police say that it was sent at 8.50 p.m. As she put it, "we went through hell that day from 3.00 p.m. until 9.15 p.m."

De Anne's stepmother was in Christchurch and first heard about the accident after 4.00 p.m. She quickly ascertained from friends that her stepdaughter's group had been involved and she gathered the family around her. Her concern was that some 14 telephone calls were made to various official sources without obtaining any positive response or promised return calls. She said that she has never officially been advised of De Anne's death. Ms Beynon had been waiting at the hospital from approximately 4.30 p.m. and could have identified De Anne's body and notified the family.

Senior Sergeant Deazley's evidence was that De Anne's stepmother's address was not on the enrolment form provided by the polytechnic and the Greymouth Police would not therefore have arranged for her to be notified. There may have been some confusion by police acting in the mistaken belief that De Anne's stepmother (with the same surname) was in fact her natural mother.

Comment: This is another case where the relatives were constantly in communication with police but were not accorded the special treatment that could have ameliorated their distress.

Paul Parker Chisholm

Paul's mother lives in Christchurch. No next of kin or emergency contact details were completed on the polytechnic enrolment form.

A message was sent to the Christchurch Police at 7.30 p.m. and Mrs Chisholm was notified at 8.30 p.m. by two police officers who came to her home.

At 5.10 p.m. that afternoon her daughter Emily telephoned Mrs Chisholm at work, advising her of the accident and providing an information telephone number that she had obtained from the polytechnic. Mrs Chisholm immediately telephoned the Greymouth Police, who put her straight through to the Grey Base Hospital where she spoke to Ms Williams, who informed her that Paul was on the list of students who were on the Cave Creek trip and that he was not one of the injured, "so that it therefore did not look good". Mrs Chisholm says that "Robin Williams was marvellous. She ensured that someone was with me and asked about my immediate situation." Although accepting that the police must be certain about a death before reporting it to family members and that police and other resources were extended to the maximum, Mrs Chisholm was concerned that, other than her contact with the police and the hospital, no one in any official capacity told her there had been an accident until the police arrived at 8.30 p.m. She also said she knew Paul's application forms to the polytechnic had both her work and home phone numbers on them.

Comment: This is another example of a humane (but unofficial) notification to an

anxious relative, on this occasion made by a hospital staff member.

Review of Notification Procedures

Other than the observations already made, I do not propose to comment in any further detail about individual cases. It is clear that an overall pattern emerges. The observations that follow must be made, against the following benchmarks:

1. Formal notification of death to next of kin must be under the overall control the of the police.

2. Such formal notification may be made only after formal identification and necessary documentation has been completed in any individual case.

3. Wherever practicable, notification should be made face to face by a police officer calling on the next of kin at the latter's address.

Further, in looking to the future I emphasise that, in this particular case, the resources of the Greymouth Police and the hospital were stretched to deal with what was, thankfully, a very rare major emergency. Any observations must be balanced against those important background matters.

In the pre-formal identification stage the following matters clearly emerge:

1. Anxious family members were bombarded by media reports but could not obtain any significant information from any official source. The polytechnic, an obvious source for anxious enquiry, was similarly in the dark. I question whether it is was necessary to throw a blanket over the release of any information.

2. There was clearly a problem for the police in identifying correctly and accurately the genuiness of enquiries from family members. A partial answer to this has already been

suggested: that family could be asked to go to their nearest police station, identify themselves and enlist the assistance of staff there.

3. In situations of this sort, a police officer or a team of officers (assuming the resources are available) should be specifically appointed as family liaison officer/s. All genuine family enquiries should be directed to him or her and he or she should have the responsibility of divulging as much information as is reasonably possible. As an example, I commend the way in which Ms Williams dealt with Mrs Chisholm, and the way in which Senior Sergeant Smith dealt with Ms Capstick.

4. Senior Sergeant Deazley perceived difficulties created by the Privacy Act regarding the dissemination of information.

There is widespread misunderstanding within the community about the effect and application of both the Privacy Act 1993 and the Official Information Act 1982. I am indebted to the Privacy Commissioner, Mr Bruce Slane, for a timely submission. He expressed the view that there is a tendency to give the Privacy Act as a reason for being unable to release information in circumstances where there has been a longstanding policy not to release it anyway. I do not repeat that necessarily as a criticism of the police in this case, but rather for assistance in the future. Mr Slane said that, regarding the release of information to enquirers who have approached the police and requested details, the decision about releasing the information is made under the Official Information Act and not the Privacy Act. If the law creates any difficulties about the release of the information, it is the Official Information Act to which the police should refer. Mr Slane doubted that the Official Information Act would cause any particular difficulty in release of the information about an accident victim to a family member or next of kin, but it might give a legal basis to a refusal to release information immediately to some other enquirers such as the news media or unrelated third parties while efforts were still being made to notify the next of kin. That, he suggested, would be consistent with police instructions that place emphasis on notifying next of kin first.

Mr Slane added that the proactive release of information by the police is not governed by the Official Information Act. To the extent that the information is "personal information" about living individuals, it is governed by the Privacy Act. Information about deceased people is not generally covered by the Privacy Act and therefore if the police have details about a deceased person they are at liberty, in Privacy Act terms, to deal with that information as they think proper.

Mr Slane went on to stress that of course the accuracy of the information released is critical, and noted that information privacy principle 8 provides:

> An agency that holds information shall not use that information without taking such steps (if any) as are, in the circumstances, reasonable to ensure that, having regard to the purpose for which the information is proposed to be used, the information is accurate, up to date, complete, relevant, and not misleading.

Against that background the Privacy Commissioner noted that the basic obligation remains that the police clearly recognise the importance of the verification process not only for the privacy of individuals but for the effectiveness of their own operation and their ongoing reputation as both acting upon and releasing information in which the public can place some trust. Mr Slane believed that principle 8 makes good sense, whether in normal police operations or in a disaster.

Finally Mr Slane recorded that the Privacy Act makes provision for information privacy principles to be spelt out for particular circumstances and suggested that, if the police believe that there are particular problems in respect of an accident or disaster, they can submit a draft code of practice to him for consideration. Noting that a code of practice for the police is likely and preparatory work is being undertaken, I am grateful for that information and I propose to recommend that the release of information to next of kin and family members relating to accident victims should be specifically addressed in the

proposed code.

Following formal identification and documentation the following factors emerge.

1. Urgency must be accorded to identifying the names and addresses of next of kin. To that end pre-victim identification enquiries by relatives should be treated as genuine subject to checking.

2. The delivery of the message must be accorded absolute priority in all circumstances except where it is simply not practicable (for example the Wairoa situation). This means that the details must be ascertained quickly after formal identification, address details preferably checked in advance, the message sent straight away and followed immediately by a check to see it has been received and actioned. Then priority should be accorded its delivery and the time of delivery reported back to the sender station.

Chapter 5

The Medical Evidence

The Deceased

The medical evidence regarding those who died is very clear. Besides holding bachelor's degrees in science, surgery and medicine, Dr Martin Sage also has a post-graduate doctorate of pathology. He has 15 years' experience as a forensic pathologist in Christchurch and has conducted about 3000 postmortem examinations for coroners in various parts of the country. He is a part-time Senior Lecturer in Forensic Pathology at the Christchurch School of Medicine, and is Forensic Pathology Adviser to the Police Region 5, which includes Westland. This advisory position was created by the police to ensure that the forensic pathology practice in unusual or extreme cases throughout the country is supervised or undertaken by a senior forensic pathologist. In this case Dr Sage offered his services to and was directed by Mr A.T. Sullivan, the Greymouth

Coroner, to undertake postmortem examinations and to report upon all 14 deceased victims. In company with Mr Dean Austin, a mortuary technician from Christchurch Hospital, he travelled to Greymouth early on Saturday 29 April 1995 and conducted postmortem examinations on all 14, beginning about 8.30 a.m. and finishing about 5.30 p.m. after assistance from Grey Base Hospital staff, the police and, for part of the time, in the company of the Greymouth surgeons, Messrs Sexton and Bodle.

Dr Sage's evidence following examinations was that, in a mass impact incident such as this, there is a frequently voiced misunderstanding that determination of the cause of death requires only a quick external examination of the victims because all will have externally apparent lethal injuries. This incident, typically, demonstrated how far from the truth this misunderstanding is. None of the victims had externally apparent "inevitably lethal" injuries.

Another purpose of Dr Sage's postmortem examinations was to determine the severity and extent of injuries to establish whether each victim survived the impact for any appreciable length of time, for how long they would be expected to survive untreated with the injuries they sustained, and whether the pattern and severity of injuries were such that some losses might have been avoided in different rescue circumstances.

After explaining assessment of injury severity by reference to internationally recognised criteria, Dr Sage went on to describe injuries to be expected in a vertical fall of 25 to 30 metres, as was the case here. Here is what he said:

> A person free-falling over 25-30 metres accelerates due to the force of gravity to reach a speed of 100-120km/h. On impact onto a hard surface such as rocks or concrete, the kinetic energy acquired in the fall is very rapidly dispersed as the body slows to a stop. It is the rate of change of energy which is most important, because the various body components have finite tolerances to these energy changes. Falls onto a hard surface from this height are very often fatal, because

the distance over which the victim slows down is so small.

If the rate of change of energy could be reduced then survival becomes more likely, so that falls into soft snow drifts, water or even ploughed fields are usually less damaging even at the same speed of impact. I assume that at least part of the explanation for there being four long-term survivors is that they somehow slowed down less abruptly than their companions. Where the impact surface is highly irregular, extra shearing forces can be applied to various parts of the body. This would conceivably have occurred in the rock and boulder-strewn impact site of this incident.

In this incident the typical constellation of high energy impact injuries familiar from road vehicle or aircrash as well as falls from a height were expected. These include direct injuries to skull and brain, chest wall, spine and limbs with bony fractures and soft tissue tearing wounds (lacerations). The speed of impact is limited in free-falling to so-called "terminal velocity" by air resistance so that the fragmentation injuries seen in very high energy impacts (such as aircrash at speeds in excess of 200km/h) were not expected.

There will also be indirect injuries resulting from deceleration such as bursting lacerations of solid organs, tearing laceration of the major blood vessels in the chest and subdural haemorrhages and tearing of nerve bundles within the brain (diffuse axonal injury) in the head. The indirect injuries can be just as lethal as the more spectacular direct injuries but are usually externally invisible.

Following his postmortem examinations, Dr Sage's analysis of the victims as a group showed three major sub-sets.

The largest group were the 10 who were already dead by the time the first assistance reached them only a few minutes after the fall. Six of them (Matthew Reed, De Anne

Reid, Anne-Marie Cook, Abram Larmour, Evan Stuart and Stephen O'Dea) had sustained injuries that would be expected to be lethal within the elapsed few minutes. One (Peter Shaw) had severe injuries to three different body regions and in his case Dr Sage also expected that he would succumb before the uninjured arrived. Two (Paul Chisholm and Alison Blackman) had critical injuries to one region and serious injuries elsewhere and although critical injuries are not regarded as inevitably lethal, death is a very common and often very rapid outcome. In the case of Catherine McCarthy (whose body had to a degree been trapped between the rocks and the falling platform), Dr Sage's conclusion was that the multiple injuries that she suffered, in combination with the presence of the platform above impeding her ability to breathe and maintain an adequate circulation, was the cause of death.

The second group were the two found by Leanne Wheeler to be unconscious but probably still alive upon initial examination. Both of those two (Jody Davis and Barry Hobson) were found to have critical injuries to which, in Dr Sage's opinion, they would have been expected to succumb rapidly.

The third group comprises the two who were alive when the first help arrived. They are the only cases in which Dr Sage would even consider whether their deaths might have been prevented.

In relation to Kit Pawsey, Dr Sage outlined major internal injuries and was of the opinion that, without surgical treatment, his death was inevitable. He said that it is very difficult to predict survival times reliably because of individual responses, but he believed that Kit would have succumbed within a few minutes.

Scott Murray also suffered critical injuries to the head and, in the form found at examination, these would be expected to cause death if untreated. Dr Sage said that, given the severity of the contusions and the deep brain injury, he was surprised to hear that Scott Murray was conscious and talking at the time of the first assistance. In his

opinion, the subdural haemorrhages would evolve over time and would be highly consistent with initial recovery of consciousness followed by a lapse into unconsciousness and death. This, he said, could take as little as a few minutes or as long as several hours, depending upon the rate at which blood was accumulating. Scott also suffered severe bruising into lung substance, a major fracture of the lower back with associated local blood loss and a fracture of the left upper arm. It was Dr Sage's opinion that the accounts of Leanne Wheeler, Mr Skilton and Ms Slatter led him to believe that the lung injury and blood loss were the direct precipitating factors in Scott Murray's death.

In Dr Sage's opinion the injuries to all 14 deceased were the result of a fall from a height exceeding 15-20 metres onto broken rocky ground. All had injuries that would cause their deaths if untreated, and it was his opinion that no treatment at any time could have saved 12 of them.

Mr Russell Worth was called by the Commission to give evidence. Apart from the usual medical qualifications, he holds a Fellowship of the Royal College of Surgeons of Edinburgh and a Fellowship of the Royal Australasian College of Surgeons, together with a Diploma of Aviation Medicine. He was actively involved in neurosurgery for 25 years until the end of 1994 and in that time looked after approximately 6000 patients suffering from severe head injuries. He is Vice-President of the Trauma Sub-Committee of the Neuro-Surgical Society of Australasia and Director of Medical Services for the Royal New Zealand Airforce. He is presently employed by Capital Coast Health Ltd in Wellington as Director of Trauma Services. Mr Worth was called to give evidence for two reasons: first, to provide an opinion in relation to the causes of death of Scott Murray and Catherine McCarthy, and second, to give expert evidence in relation to helicopter rescue services. I shall deal with the latter matter later.

In relation to the issue of cause of death, Mr Worth had read the brief of evidence to be given by Dr Sage and so his evidence was based upon that material, together with the

evidence of those who were with the deceased in the resurgence.

With regard to Catherine McCarthy, having set out the postmortem findings from Dr Sage, Mr Worth said:

> The injuries are severe. There is an injury to the brain in depth as well as surface damage. Consciousness may well have been lost early. In my opinion the injuries of the brain were non-survivable. As well the deceased had a lacerated spleen with associated bleeding, a fractured humerus and bi-lateral lung damage, adding to the injuries being non-survivable.

With regard to Scott Murray he said:

> From the postmortem examination conducted by Dr Sage it is known that Scott Murray had bilateral subdural haemorrhages. There was a collection of blood on each side of the brain deep to the dural covering. As well there was evidence of severe injury to the brain in depth. Subdural haematomas develop over a period of time and very often there is a period where consciousness is retained. The total pattern of injury to the brain, that is the subdural haematoma and the injury to the brain in depth, means that recovery was extremely unlikely regardless of any medical intervention provided immediately at the scene or later.

The Commission also called as a witness Mr Ian Civil, who is a Fellow of the Royal Australasian College of Surgeons and is currently employed by Auckland Health Care Services Ltd as Director of Trauma Services. He also conducts a practice as a general and vascular surgeon, has substantial experience working solely as a trauma specialist, in 1992 was appointed as Chairman of the Royal Australasian College of Surgeons New Zealand Trauma Committee and since 1985 has been a member of the Association for the Advancement of Automotive Medicine based in Chicago. For the last four years he has been a member of the board of directors of that organisation.

Using the material contained in Dr Sage's postmortem examination reports, Mr Civil was asked to make his own assessment of the severity of each of the injuries: "In all material respects I concur with Dr Sage's assessments and for the reasons which will follow think it highly unlikely that any of the deceased would have survived their injuries even if advanced life support skills had been available more promptly."

Mr Civil also considered the case of Scott Murray: "I have read the evidence of Mr Worth and agree with him that the severity of the head injury made survival improbable." In relation to Catherine McCarthy: "This deceased had a very severe head injury which, associated with the shock produced by the ruptured spleen, would have been likely to have been fatal under the most desirable circumstances."

He was also asked to comment specifically on whether Kit Pawsey could have survived:

> In this case the bi-lateral severe lung injuries would have rapidly compromised breathing. Unless advanced emergency care was available within 5-10 minutes it is highly likely that the patient would have died from hypoxia. Even in an urban setting provision of care within this time frame is not always guaranteed. Had the patient survived the immediate pulmonary problem the severe pelvic fracture may well have caused death from haemorrhage.

As will be apparent, in my opinion the weight of the expert medical evidence is overwhelming. It is, I conclude, highly probable that none of the deceased would have survived even if advanced emergency care had been almost immediately available.

It is appropriate here to say something for Mr Andrew McCarthy, a personable man who endeared himself to all at the hearing. He, very understandably, persevered with his thesis (I use that term advisedly because he is a science teacher) that his daughter

Catherine might have survived the fall and might, with early medical intervention, have recovered. He pursued that theory with dignity and grace. With very much regret I am bound to report that all the evidence points the other way (although I know he will not agree).

The Survivors

The concept of the "golden hour" is by now well known. This is the period of one hour from the time of the trauma or injuries occurring. There are people who will die from their injuries, either immediately or some time later, in spite of all efforts, whereas others can have their outcome changed by early treatment, ideally within that golden hour. A further group will survive even if medical treatment is delayed.

An issue that was likely to arise at the inquiry was whether the prognoses of any of the four survivors might have been either improved or worsened because of the time taken for trained ambulance personnel to reach them. Remember that three-quarters of an hour had elapsed before the alarm was first given, and about two and a half hours before the first ambulance personnel arrived in the resurgence.

Mr Civil was asked to consider this aspect in respect of the four survivors. Armed with all of the available material, including clinical records, he calculated relative degrees of injury severity for the survivors. Their injuries ranged from moderate (Sam Lucas, Stacy Mitchell and Carolyn Smith) to severe and potentially life-threatening (Stephen Hannen). His opinion was as follows:

> Reviewing the clinical records of Lucas, Mitchell and Smith I see no evidence that the clinical care provided either in the pre-hospital area or after admission compromised the outcome. In Hannen's case there have been complications of the injuries but review of the hospital records, including the admission note written by Dr Chris Curry, does not suggest that any aspect of his management at the scene, or en route to Christchurch Hospital contributed to these complications.

I note the obvious, that, to the survivors, any delay at all must have been extremely uncomfortable, painful and distressing. There was no expert evidence as to the

psychological effects, if any, on any of them.

I conclude that the evidence does not suggest that the materially earlier arrival of qualified ambulance personnel would have made any appreciable difference to the outcome for any of the survivors. Apart from the issues of discomfort, no one suggested that it did.

Chapter 6

The Terms of Reference -- and the Lessons to be Learned

It is appropriate now to deal in turn with each of the terms of reference. Clause (ia) reads:

(ia) The actions of the Police and other organisations and persons involved in carrying out the rescue operation following the collapse of the viewing platform, including,
(i) The steps taken to notify rescue services of the collapse of the platform:
(ii) The provision of medical assistance to persons at the scene:
(iii) The action taken to evacuate injured persons from the scene:
(iv) The action taken to identify the persons who died and who were injured in the collapse and to notify their next of kin;--

and whether those actions were expeditious, effective, and appropriate in the circumstances.

I understand the term "in the circumstances" to mean the circumstances as they existed on 28 April. I shall consider each subclause separately and determine whether the police and other organisations and people involved in carrying out the rescue were expeditious, effective and appropriate.

(i) The steps taken to notify rescue services of the collapse of the platform.

I conclude that there can be no criticism at all of what was done by those remaining at the scene, given that the only appropriate way to notify the rescue services was taken. Ms Slatter and Mr Skilton established a plan of action; the decision to use the vehicle radio was an obvious one and the written recording of instructions commendable. The fact that the vehicle radio could not be used because the keys could not be located was

unfortunate but unavoidable. Had the keys been available, the radio would probably have worked. What happened subsequently was logical, sensible and commendable.

With regard to the police and St John notification of rescue services, the evidence is clear that both bodies acted immediately and effectively to communicate with and draw in all other necessary services. It is also clear from the evidence that the police, correctly, assumed overall control of this properly designated Class 2 search and rescue operation and that St John, as requested by the police, took responsibility for the provision of medical rescue services.

(ii) The provision of medical assistance to persons at the scene.

For these purposes I propose to regard suitably qualified St John Ambulance personnel as persons capable of providing medical assistance. Some St John Ambulance officers, particularly on the West Coast, are volunteers but some are permanent employees. The latter is becoming increasingly the case as St John takes over the bulk of the country's ambulance services, but, as the evidence showed, that has occurred only relatively recently on the West Coast. Ambulance officers have a range of qualifications, the paramedic being the highest qualification and elementary the lowest. The higher the qualification, the greater the range of treatment the officer is qualified to administer. At the time there were no officers with paramedic qualifications on the West Coast, although recently a fulltime paramedic has been stationed in Greymouth, but that made no difference on the day.

I have dealt at length with the issue of Sergeant Kelly's diverting Ambulance Officers Ching and Klempel, but in the circumstances as he knew them to be at the time, with the helicopter running and the first injured patient already being prepared on the stretcher for lifting out, his decision, in my opinion, was entirely sensible and appropriate. What that incident highlights is that neither the St John personnel nor Sergeant Kelly could communicate directly with an ambulance or ambulances. I

accept, as a general proposition, that it is important for an ambulance officer to render assistance at the scene where practicable, and for patients to be examined by medical personnel before they are moved.

In my opinion, neither St John Ambulance nor the New Zealand Fire Service can be criticised for delaying the arrival of medical personnel at the site. The stalling of ambulance 892 was unfortunate, unavoidable and did not, in any event, delay the arrival of medical personnel. There was a suggestion in the evidence that a Fire Service vehicle might have partially blocked the road at some stage but if that was so no issue was ever made of it by counsel.

With regard to the arrival of helicopter services, some issue was made initially at the hearing about whether the police ought to have stood down Mr Cowan initially, and then whether they ought to have directed him to uplift medical personnel from Grey Base Hospital. I conclude there is nothing in either of these assertions. It was entirely sensible for the police to put him on standby pending further directions. It was the department that had directed him to the site (which was important, in my opinion, from the point of view of the morale of those in the resurgence), and the medical opinion was that the presence of a doctor from Grey Base Hospital would have made no difference to the outcome.

The evidence is that the Westpac and the RNZAF helicopters arrived as quickly as they could.

I conclude the actions taken to provide medical assistance at the scene were expeditious, effective and appropriate in the circumstances.

(iii) The action taken to evacuate injured persons from the scene.

Mr Cameron based his submission on the proposition that the actions taken to move

the injured from the scene without the benefit of medical assistance was inappropriate in the circumstances, but intimated that the Commission might best confine itself to dealing with the lessons to be learned.

The evacuation was carried out by helicopters all piloted by very experienced operators and, in the circumstances, this part of the exercise proceeded particularly smoothly and the actions taken were expeditious, effective and appropriate.

(iv) The action taken to identify the persons who died and who were injured in the collapse and to notify their next of kin.

No issue appears to arise in relation to the steps taken to identify those who were injured and to notify their next of kin.

In relation to those who died, in my opinion the actions taken to identify them were expeditious, effective and appropriate in the circumstances. It was only in the area of notifying next of kin, and then in relation only to some of them, where the police actions were less than expeditious, effective and appropriate. The particular circumstances have been detailed in relation to the particular families affected.

The issue has to be viewed against the background of the enormous demand made upon the police resources at Greymouth that day, and this has to be firmly remembered and taken into account. I shall deal with the lessons to be learned in the next section.

Clause (ib) reads:

(ib) If those actions are found not to have been expeditious or effective or appropriate in any respect, suggestions for changing the practices and procedures of the Police or other organisations or persons involved in rescue operations.

As indicated earlier, I proceed on the basis that the wording of this clause allows me licence to consider the overall actions of the police in relation to notification, though I have found their actions were lacking only in respect of three late notifications. It is also an opportunity to consider a police-led change in the manner in which victims' families are handled by officialdom. The principal lesson to be learned is that a change is needed in police culture in terms of attitudes towards and dealing with relatives of the injured and the dead. I intend this apparent criticism only to be taken constructively. I appreciate that the circumstances of every accident or major incident are different, that resources of all organisations concerned may be stretched, and that therefore it is very difficult to formulate a hard and fast set of guidelines. It would be inappropriate for me to attempt to lay down any new guidelines. Rather I prefer to recommend that the police give careful consideration to the overall issue of notification to victims' families in cases of accident or major incident with particular reference in any particular case to:

1. The immediate appointment of a victims' families liaison officer charged with the responsibility of making as much appropriate information as possible available to those whom the officer concludes are genuine enquirers with an interest greater than that of the public generally.

2. Those so identified being kept up to date with the victim's progress, recognising the need to allay natural fear and anxiety as much as possible.

3. Where death has occurred, to take, where practicable, proactive steps to obtain a preliminary identification of the deceased and, if this is known, to ascertain the identification of next of kin as soon as possible so that, once the body has been identified and other documentation has been completed, next of kin can be notified immediately and appropriately.

4. Develop a culture of, where practicable, giving such notifications absolute priority.

5. To follow up messages to see that they are received and acted upon immediately and, if not, are diverted to an appropriate point where they will be.

6. Take a broad-based approach to the issue of identifying next of kin. As is apparent in this case, victims' parents frequently live at different addresses. Where the police know that there is more than one next of kin who may be living at different addresses, then they should take the extra step of formally notifying each person.

I believe that adopting a different culture of this sort would not necessarily impose any additional load on police or other resources. I am suggesting a change in attitude to an approach of what can best be done to keep the victims' relatives informed rather than an attitude of "we can't release any information at this stage and you must wait".

Suggestions were made on behalf of the victims' families that I should make recommendations accordingly for a change to Police General Instructions, but I believe it is inappropriate for me to go that far. I propose to recommend that the police give careful and studied consideration to changing their approach.

That leads me to the final clause.

(ic) The suitability and adequacy of legislation (if any) relating to the conduct of the rescue operation and, if any such legislation is found to be unsuitable or inadequate in any respect, suggestions for changing the law.

There is no legislation relating to the conduct of the rescue operation. As noted earlier, the rescue operation was conducted as a Class 2 search and rescue in terms of what is known as the *Search and Rescue Manual*. I have already dealt with the way all the organisations co-operated to produce the rescue effort. It is useful, however, to set out the lessons to be learned from this exercise.

Besides Messrs Worth and Civil, the Commission also had the benefit of hearing from another expert witness, Professor Stephen Deane, who is a duly qualified medical practitioner holding Fellowships from the Royal College of Physicians and Surgeons of Canada and the Royal Australasian College of Surgeons, and who has had extensive experience developing trauma services in hospitals in Sydney and other parts of Australia and was the Royal Australasian College of Surgeons representative on a working party of the National Road Trauma and Advisory Council in Australia developing a template for trauma systems in Australia. He has also been involved in trauma teaching to undergraduate and post-graduate doctors and, as chairman, has been responsible for the Early Management of Severe Trauma course which has now been promulgated throughout Australia and New Zealand and has educated over 3000 doctors in aspects of the early management of those suffering injury.

I am grateful for his evidence which has helped me to obtain a broad overview in terms of the disaster plan activation and the trauma (injury) management system response. He began with the proposition that trauma systems must be specifically designed around certain distinctive features of the health risks of victims of injury such as: injuries may actually be hidden, multiple injuries may co-exist, one or more injuries may be acutely life-threatening, physiological deterioration can be subtle or sudden and progressive, few medical practitioners treat potential or actual serious injury frequently, and assessing and treating such patients can in itself be stressful for the health care providers.

Next he noted that hospital and local community disaster plans are constructed to enhance the possibility of appropriate responses when there are multiple victims or potential victims, resources are limited and multiple agencies need to be involved.

In Professor Deane's opinion, in developed countries such as Australia and New Zealand, the standard of medical training at all levels is high and the support facilities are generally very good by world standards, but this can lead to inappropriate

assumptions by the general public such as: if nothing else, my nearest hospital can preserve my life if I am injured, all doctors are capable of administering advanced first aid efficiently to injury victims, smooth teamwork is a hallmark of medical/paramedical practice and health care practitioners are above territorial contests.

Noting that trauma care systems have not necessarily developed evenly, he pointed out that impediments to rational trauma planning and implementation have frequently included: administrative inertia due to fear of costs, political inertia due to fear of community objections (e.g. failure to understand that the local hospital, despite its focus for community pride, cannot provide state of the art trauma care), medico/political conflict, territorial contests between different agencies and narrowly focused enthusiasm as against the need to consider broad regional systems.

It is interesting to note that some of these impediments have become visible in the present case.

Professor Deane believed that, to cope with an event such as the Cave Creek disaster, what is needed is a pre-planned, easily activated disaster plan that can make best use of a well-established trauma system. In the present case no local or regional disaster plan existed, although most of the principal organisations concerned (police, the hospital, St John, RNZAF, Westpac) had their own disaster plans, which were activated.

Professor Deane also provided a very clear exposition of the issue of command. While not commenting on the events in this case, he said:

> An event such as this requires unambiguous leadership by a scene commander who needs also to be responding to clear advice from a designated medical controller who has authority to determine and communicate medical need and advice regarding treatment, transport and destinations.

From his overview he was able to provide an opinion regarding an appropriate strategy to advance the development of a trauma system for the West Coast, emphasising that he was dealing with broad concepts rather than specific detail. He commented on the following matters:

1. Pre-hospital care

(a) Manning of ambulances:
In his opinion ambulances should be staffed by two well-trained officers.

(b) Some form of pre-hospital triage should be introduced so that a regional response can be triggered when high-risk patients are identified.

(c) Vehicles:
The West Coast is well suited to helicopter usage.

2. Categorisation of hospitals

(a) Advanced trauma service should be supplied at Christchurch Public Hospital but Professor Deane believed that the public has a right to expect seamless trauma care between Christchurch Public and Grey Base Hospitals.

(b) The District Trauma Service for the West Coast requires that Grey Base Hospital be officially designated and supported as such and a Trauma Service Director should be appointed and clinical service should conform with appropriate guidelines. Strong leadership should be shown in enhancing the basic trauma services on the West Coast by education initiatives, good communications and clinical feedback.

(c) Basic trauma services are provided by general practitioners who see major trauma

infrequently, so good basic training in initial assessment of trauma patients and continuing training is required on a regular basis.

3. Disaster planning

There should be a clearly developed and easily implemented hospital and local community disaster plan that would guarantee unambiguous leadership in disasters. Such a plan would result in mobilisation of resources more likely to handle a worst case scenario as opposed to a stepwise incorporation of resources as the magnitude of the disaster unfolds. Another critical issue is that of communication: lines of authority must be clear, lines of communication must be well planned and the technology must be available to deal with the communication problem posed by the difficult geography.

Having heard Mr Worth's evidence, it is clear that the framework already exists on the West Coast. Indeed the response to this disaster is adequate testimony to that. It is, in my view, a matter of taking a broad view, preparing an overall regional disaster plan in consultation with all relevant organisations and agencies, and obtaining their acceptance and implementation of it.

It is not for me to attempt to write such a plan; rather it requires careful consideration by all the agencies involved, approaching it in a co-operative and open-minded manner.

Some of the difficulties identified in this case require resolution. Examining the evidence of what occurred at the junction in a neutral light, it becomes apparent that, by directing the ambulance officers to return to Forward Headquarters, a police officer was in fact directing medical officers about where medical treatment should take place, when this, strictly, was not a police decision. During the course of Mr Chatterton's evidence it became clear to me that there is an actual or perceived conflict between St John and the police over this issue of command in relation to medical decisions at accident scenes. Having heard the evidence, I suspect the conflict is more perceived than real and an experienced St John officer on the West Coast has been appointed to liaise with the police there so that any such difficulties should by now have been resolved. If any difficulties remain they must be talked through; there is no time for resolving territorial disputes in the midst of a disaster response.

Mr Worth gave examples of regional disaster plans that apply to other areas. I conclude that every regional area requires its own disaster plan structured to meet the unique local requirements. The West Coast, with its particular issues of transportation and communications, is a prime example.

The evidence revealed that there is agitation for a dedicated rescue helicopter located at an appropriate position on the West Coast. Mr Worth has had extensive experience in setting up helicopter rescue services in New Zealand. In 1978, in conjunction with the late Mr Peter Button, he developed the first civilian rescue helicopter service in Wellington and has since then been intimately involved with helicopter rescue services. Recently the Aviation Industry Association of New Zealand Inc. formed an Air Rescue/Air Ambulance Division and has now released a draft Air Rescue/Air Ambulance standard for comment. That sets out the standards originally set by the New Zealand Society of Air Rescue Trusts and, in Mr Worth's opinion, represents the state of current thinking throughout Australia and New Zealand. In this case the Westpac Rescue Helicopter conformed to those standards.

Mr Worth noted that helicopter rescue operations in New Zealand have not developed systematically. They have either been developed by enthusiasts servicing a perceived need or as the result of a local disaster raising awareness, and this has resulted in a patchy coverage of New Zealand, with some areas being underserviced and others duplicating an expensive resource. There are differences in opinion about whether a dedicated rescue helicopter should be located on the West Coast. A paper produced by the Royal Australasian College of Surgeons New Zealand Trauma Committee in May 1994 headed *Guidelines for a Structured Approach to the Provision of Optimal Trauma Care* recommended that 24-hour/seven-day emergency ambulance helicopters should be based at advanced trauma services in the four main centres and in Hamilton, but that there should also be access to local emergency ambulance helicopters available in a number of other places, including Greymouth. Recently the Southern

Regional Health Authority released a document called *Pre-Hospital Emergency Care/Primary Response in Medical Emergencies.* It addressed the question of helicopter services based in Greymouth in these terms:

> In general the spread of suitable commercial helicopters provides good coverage for isolated areas, however, there is no suitable local helicopter in the Greymouth region. This service is needed because of the region's topography and isolation. Special funding arrangements will have to be made. SRHA are having talks with ACC and interested community groups towards setting this up.

Dr Sexton supports the provision of a dedicated rescue helicopter for the West Coast.

It is important to note that Mr Worth was very supportive of the local first response helicopter services such as those provided in this case by Mr Cowan. That, he said, is a strong characteristic of the West Coast, where there are a number of similar operators dotted throughout its length. Whatever happens in regard to rescue helicopter services in the future, he said, never ever lose sight of the value of the first response helicopter. It is important to remember that, even if a dedicated rescue helicopter were located at Greymouth, it would still be up to two hours' flying time away from certain areas in Southern Westland. Also, an appropriate type of machine (e.g. a Squirrel) is expensive to purchase and to run, and really needs to be supported by and operated as part of a commercial operation, as are the Westpac Rescue helicopters.

It has been brought to my attention that an Emergency Services Review is currently being carried out, led by Sir Somerfield Tegel. As I understand it, that review is due to be reported soon after an extensive consultative process involving a large number concerned and involved organisations. It would be quite inappropriate for this report to attempt to cut across the ground of a national review. In my opinion, there is a need for a West Coast regional disaster and trauma treatment plan that will require full consideration, among other things, of the type of rescue helicopter services needed for

the future.

The same applies with the issue of radio communications. In my opinion, what difficulties there were between the rescue services on 28 April were heightened, if not caused by, an inability to communicate freely between organisations. It is unnecessary here to include the details of the communications available on the day. They must be viewed against the difficulties for line of sight communication created by the topography of the West Coast. In essence, the police were able to communicate by radio from Forward Headquarters and the junction sites and their base at Greymouth Police Station; they were also able to communicate air to ground with the aircraft; and all of the aircraft were carrying out a listening watch on an appropriate frequency so that they could communicate with each other. St John and the police had no means of communicating with each other by radio and St John were out of communication with their Greymouth base once past Runanga. The St John personnel who first went to the junction, Officers Ching and Klempel, were not in communication with their base or with the ambulances. (There is evidence that Officer Ching carried a radio, but none that he used it, or that it was useable.) There is other evidence that other components of the rescue services were similarly unable to communicate with each other.

A number of solutions were suggested during the course of the evidence, some of them conflicting. It is not appropriate for me to attempt to resolve these conflicts. I prefer to stand back and look at the issue from the broad perspective and observe that in the 1990s, when, by means of satellite navigation, aircraft and ships can be navigated with pinpoint accuracy to almost any place on the earth, it should not be impossible to create a reasonably priced system of radio communication, even in an area of topographical difficulty such as the West Coast, where every essential element of a rescue service ought to be able to communicate freely with the other. This aspect should be addressed in a combined regional disaster and trauma plan. In that regard I am grateful to Mr David Stanley, the department's Telecommunications Manager in Wellington, who indicated that a Public Safety Radio Frequency Management Group has been set up by

representatives from the department, the police, the Fire Service, the Ambulance Board, the Customs Department and the Ministries of Defence and Civil Defence, to inquire into and ensure the best use of the radio spectrum for public safety. Introduction of the ESB band radio network has begun on what he terms a staged migration basis. This network will apparently substantially upgrade the existing radio communication facilities. Given the experience of this case, I commend that and recommend this should be considered in the preparation of a combined regional disaster and trauma plan.

General

I record that my overall impression (having regard only to the West Coast) is that the Coast is already well served with rescue organisations, many of them are working assiduously to improve their facilities, but there needs to be co-ordination between them to ensure that everyone is heading in the same direction. I therefore suggest the following recommendations, but with any critical intent, but in the hope that there will emerge for the West Coast an overall disaster/trauma plan designed to deliver seamless trauma care for victims from accident site to the appropriate hospital. The list of matters suggested in the following recommendations is not intended to be exhaustive. That is a matter for the experts to determine.

Recommendations

1. That the government initiate and implement appropriate steps to institute a combined regional disaster and trauma plan for the West Coast.

2. That such a process should invite and involve wide participation from every relevant rescue and trauma care organisation or party.

3. The object of the plan should be to deliver timely, effective and seamless trauma

care from accident site to the appropriate hospital.

4. Among other matters, the plan will provide for:

(a) Unambiguous overall leadership, including the prior resolution of all likely conflicts, and the co-ordination of all services.

(b) Unambiguous medical leadership.

(c) Mobilisation of resources on a worst-case scenario basis, with progressive scaling down as appropriate.

(d) Clear and well-planned lines of communication, both personal, and by means of technology, between all the various arms of the rescue services.

(e) Optimisation of resources, including a determination of the community's ability to support, and the location of, a dedicated rescue helicopter.

(f) The manning of ambulances by two well-trained and appropriately qualified officers, and with provision for the recording and passing on of patient notes.

(g) Where practicable, the introduction of pre-hospital triage performed by suitably qualified officers on patients perceived to be high-risk, and before they are moved.

(h) Appropriate categorisation of hospitals, with Grey Base Hospital being appropriately designated and a trauma service director appointed, and with pre-planned hospital designations allocated.

(i) The instigation of continuing trauma treatment training for interested general practitioners.

(j) Identification of responsibility for notifying families of both injured and deceased victims and the adoption of appropriate guideline procedures to achieve a sensitive and timely communication of information.

(k) An overall programme of continuous education and training aimed at maintaining a co-ordinated overall response.

Epilogue

Sitting through the 31 hearing days enabled me to gain the feeling and the flavour of the inquiry. The tragic consequences of the Cave Creek platform collapse have been far reaching and the continuous presence of representatives of many of the victims' families was mute testimony to this. But, to my observation, it is not just the victims and their families who have been traumatised by the tragedy. At an individual level, it became very clear to me that the tragedy has left an ineradicable mark on the lives of those department employees and others who were closely involved.

What caused this catastrophe to happen? Standing back and viewing the evidence objectively, that I am left with the overwhelming impression that the many people affected -- victims and their families, department employees and their families, and others closely associated with the disaster -- were all let down by faults in the process of government departmental reforms.

Society always likes to feel it is progressing, but there are lessons for society in all of this. No government organisation can do its job without adequate resourcing. In my opinion, it is up to governments to ensure that departments charged with carrying out statutory functions for the benefit of the community are provided with sufficient resources to enable them to do so. Here, the evidence is clear that the Department of Conservation lacked and continues to lack those resources. For future safety that must change.

It is a tragic quirk of fate that all of those who fell with the platform at Cave Creek had a close affinity with New Zealand's great outdoors. One was already employed in tending the conservation estate, and the others were the very type of young people likely to seek similar employment enthusing others.

I should like to conclude with a poem that was submitted by Mr Philip Cook. It was loved by his sister, Anne-Marie, who died at Cave Creek.

It's Only a Little Planet
If you can stop, and let yourself look,
let your eyes do what they do best,
stop and let yourself see and see
that everything is doing things to you,
as you do things to everything.

Then you know
that although it is only a little planet
it is hugely beautiful
and surely the finest place in the world to be.

So watch it, look at it,
see what it's like to walk around on it.

It's small, but it's beautiful,
it's small but it's fine
like a rainbow
like a bubble.

On the trail
There's nothing there
that isn't alive
from the deadest fallen branch
to the water like running ice
everything
seems so much a part of everything else
nothing can be separated
or thought of as dead.