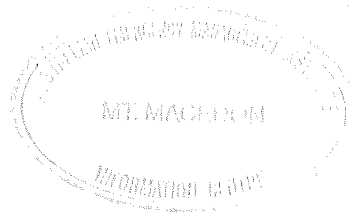




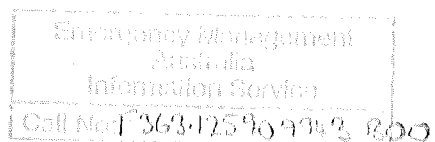
# **BOONDALL BUS ACCIDENT**

**REPORT BY JEFF SHELBERG**



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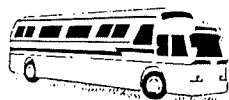




**Queensland  
Emergency  
Services**



**Queensland Ambulance Service**



## ***BOONDALL BUS ACCIDENT***

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*10:10 am  
24/10/94*

# **REPORT**

*by*

*Jeff. Shelberg  
Ambulance Site Commander*



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## **AIM**

The aim of this report is to present the details of the Boondall bus accident from the Ambulance Site Commander's perspective. Further reports available include the medical report written by the QAS Medical Director, Dr R Bonham, and a report from a regional perspective written by Assistant Commissioner R. Linwood.

## **BACKGROUND**

Boondall is approximately 18 kilometres north-east of the Brisbane CBD, and is one of the suburbs through which the main arterial four lane north/south bypass road meanders on a path that connects the Sunshine Coast with the Gold Coast. It was on this highway just south of the Sandgate Road overpass where the fatal bus accident occurred.

The early morning showers and the peak hour time traffic had abated, when a front end mechanical failure caused the south-bound tourist coach to lose control, career into a median strip ditch, causing it to flip on its side, become airborne, and skid across a northbound dual lane highway and plough down a ten metre embankment. Only for drought conditions, the front of the bus would have been submerged in swamp water.

## **INITIAL NOTIFICATION**

At 10:10 am a call was received at Brisbane Ambulance Communications Centre from an interstate tourist stating "a bus had tipped over". Within minutes confusing information was received that it may be a lorry accident. Finally it was confirmed as a bus accident from the first ambulance unit arriving on site.

## **ACTIVATION**

The sequence of activating resources followed the procedures set out in the QAS "Multi-Casualty Management Plan" for this region. Before confirmation of the extent of the incident was confirmed, the initial wave of ambulance resources had been activated. This included two units, a Station Officer (On-Scene Controller) and the designated Operations Co-Ordinator (Site Commander).

Once the first unit on the scene confirmed a coach containing elderly passengers was involved, the ambulance response was immediately upgraded by the Site Commander who was still travelling to the scene. The initial request was for:

- 15 Ambulance Units
- 2 Emergency Support Units
- 1 Medical Coordinator
- Medical Teams on stand-by

On arrival at the scene, the Site Commander requested the following additional resources:

- 2 Ambulance Clinic Buses
- 4 Medical Teams
- 4 Medical Response Helicopters

## **RESPONSE**

The first Ambulance response wave included:

- 16 Ambulance Units
- 3 Ambulance Clinic Buses
- 2 Emergency Support Units
- 1 Operational Support unit

Further support was activated, and the peripheral ambulance stations staged resources within response range to the incident. A number of senior ambulance operational staff also attended the scene together with Training Officers from the Ambulance Officer Training Centre, who reacted in accordance with the Brisbane Multi-Casualty Plan.

## **OTHER SERVICES**

The Police Service quickly set up road blocks and stopped all traffic at exit ramps either side of the scene, and, under the command of Inspector Veronica Kane, police provided sufficient resources to carry out the investigation as well as provide escorts for ambulances.

The Fire Service responded with sufficient staff to meet the demands of rescue, and, under the command of District Commander George Malouf, provided staff to assist with the movement of casualties to the triage area, and maintained a safe environment. For the first time in a metropolitan incident, the SES was activated. Under the command of Local Controller John Butler, the SES responded to provide shelter for the casualties from the impending rain. However, their task rapidly changed to encompass searching the area for body remains, evidence, clinical waste and assisted with the process of the deceased, including the establishment of a field morgue.

Other agencies that responded and eased the burden of fatigue were the Salvation Army Canteen Service and the Clergy. A Number of tow truck operators played an essential role in the initial stabilisation of the bus and joined some council workers and bystanders in assisting the injured.

## ARRIVAL

On arrival at the scene, the Ambulance Service was met with a quiet group of casualties and helpers on the embankment of the highway. Only the occasional moan from the injured broke the silence, and calm prevailed throughout the operation. Ambulance Officers went about their duty in a calm, methodical and professional manner. This sense of calm continued throughout the operation and was to play an important part in reducing "Critical Incident Stress" by the responders to the scene.

With the arrival of the many agencies at the scene, early congestion problems were identified. Conscious moves were made to remove all unwanted vehicles, and marshall the ambulance units in a diagonal formation.

My first priority was to make contact with the On Scene Controller and receive a brief. Then I was able to implement strategies to control the scene, commence the flow of casualties to a triage area, identify a marshalling area for the rapidly arriving ambulance units, appreciate the potential problems and complexities and communicate with Ambcom as part of my overall duties as Site Commander.

## CASUALTY MANAGEMENT

The casualties presented with injuries ranging from soft tissue injuries, internal haemorrhage, fractures, severed limbs and multi-system trauma. All casualties received initial triage by the first ambulance crews, and received a priority for treatment by using the Mettag casualty label system. The information on the Mettag was used by all services to identify and accurately account for all passengers, record treatment and vital observations of the casualties.

At no time during the event was any casualty compromised or active resuscitation required, and all patients were in a stable condition at arrival at the major trauma centres. The initial triage was difficult, because most of the serious cases were either a high priority 2 or a low priority 1, making the initial evaluation by the first crew difficult.

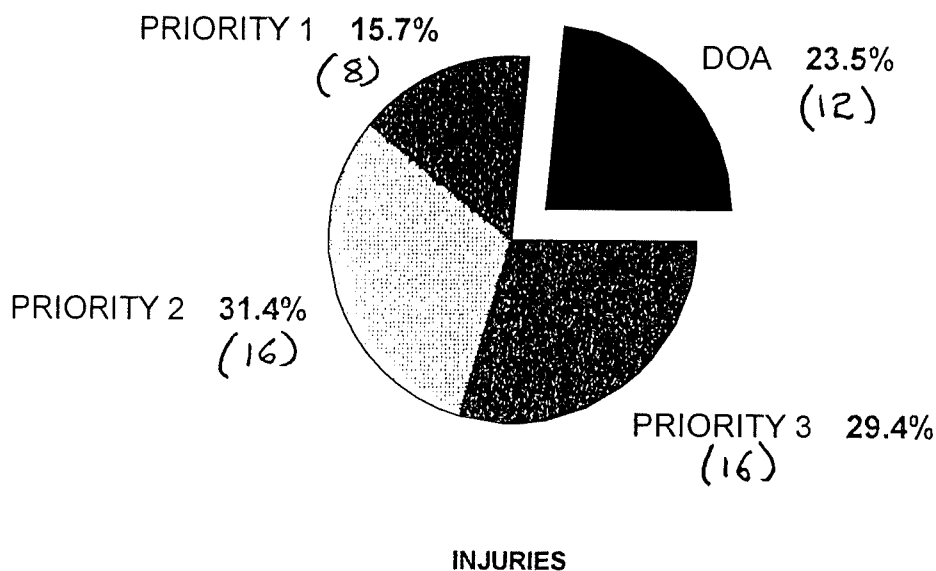
The deceased accounted for 23%(12) of the total number, and a further 29%(16) not requiring intervention to stabilise their condition. This left 47%(24) of the passengers requiring ambulance and medical intervention before transport to definitive care. (See chart on Page 4)

The Emergency Support Units provided the specialist resources to allow officers to manage the casualties in the forward area without returning to their units constantly for equipment. The fifty cardboard disposable stretchers were issued first, and once the triage area was established with the yellow and red tarps identifying the receiving area for the priority one and two cases, the casualties were moved from the forward area to the triage and treatment area.

Bulk oxygen with multi-flow outlets were strategically placed in the triage area, and trauma packs, disposable splints and IV fluids were issued from the ESU. The concept of a role specific unit to provide a ready identification for the triage and treatment area, and as a resource base for all equipment, has been challenged over the years. However, it proved its worth many times over at this incident, and this was supported by many comments at the scene, and at de-brief sessions.

The use of bystanders to augment our resources in the early stages of the incident was necessary, and the phasing out of those helpers and the phasing in of the QFS resources required a conscious management action.

## INITIAL TRIAGE





## SITE MANAGEMENT

The Gateway Arterial Road was an ideal location to manage a major incident, as the dual two lane highway provided a controlled area with easy access and space to establish the triage area, marshalling area and helicopter landing zone (LZ). The highway provided ample area adjacent to the crash site to establish the triage and treatment area, marshalling area, helicopter landing zone and at the same time allow the other services access and parking space.

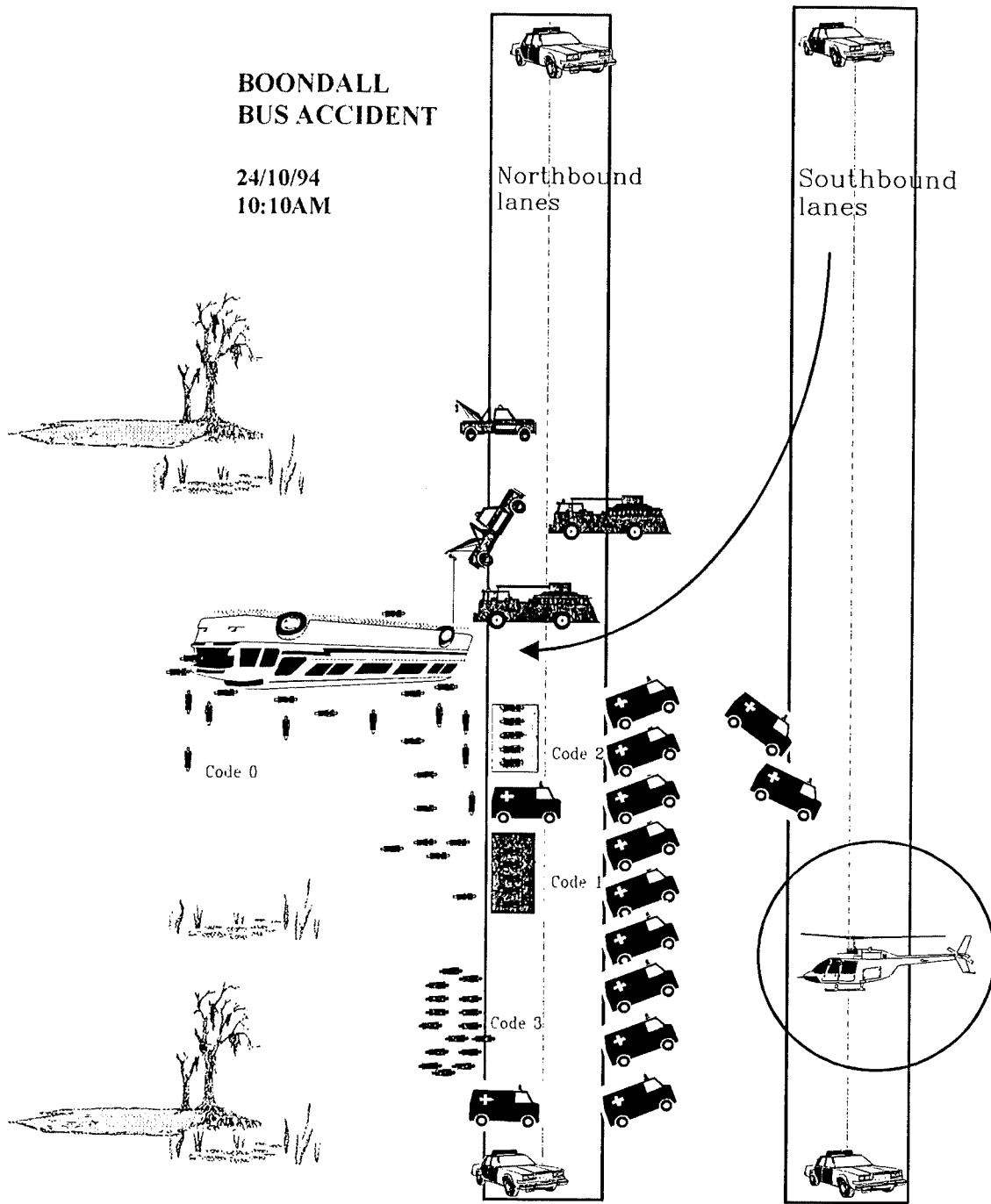
Early intervention was necessary to establish the management areas, and with the cooperation from the police, all traffic was diverted around the scene and all civilian vehicles on site that could be moved were diverted out of the area.

The bus was down a 10 metre embankment, and the Emergency Support Unit was deployed adjacent to this area on the road. The opposite shoulder of the road provided an ideal marshalling area, with enough room to park arriving units in a diagonal pattern to facilitate maximum use of available space and easy access for loading. Tow truck operators were asked to park all arriving vehicles. The southbound highway provided easy departure access, and was an ideal location for the helicopter landing zone. (Refer site plan page 6)

Coordination and caution was required with the helicopter zone, as this was located near the ambulance departure route, however, incoming resources prevented the site of the LZ being located on the northern approach.

Identification of the site management team was by service tabard endorsed with "Commander", and further enhanced by red helmets being worn by the ambulance and fire services.

The professional media were effectively controlled during the event. The only problem encountered was from a person taking amateur video footage. This is an expected trend emerging in America and needs to be considered in such situations.



## RESOURCES

In addition to the conventional ambulance units, role specific units were deployed to assist in the management of the scene as discussed briefly below.

### *Emergency Support Units*

These units contain bulk trauma packs, patient care supplies, IV fluids, disposable stretchers and splints, multi-flow oxygen outlets and other ancillary equipment to treat 50 trauma cases. This alleviates the need to access equipment from ambulance units, and leaves them in full operational order ready to transport the casualties to hospital.

The cardboard disposable stretchers were the result of discussions between a colleague in South Australia and myself some years ago, and once developed by St. John Ambulance South Australia they were implemented into our service and tested at exercises, but not in a Multi Casualty Management situation until now. They proved invaluable. They were so effective they were used from the "road side" to the "bed side" literally, and were used as "patslides" within the hospital environment.

### *Operational Support Unit*

This unit provides a mobile casualty facility and stand-down provisions to the emergency services. Equipped with a kitchenette and a treatment area, this unit is essential for the welfare of service personnel at protracted incidents.

## TRANSPORT

Both air and road transport were used from the scene, and the Ambulance Transport Officer recorded the following details on every casualty:

- ♦ *Ambulance Unit*
- ♦ *Time*
- ♦ *Surname*
- ♦ *Mettag label number*
- ♦ *Hospital*

All casualties were accounted for, and no tertiary transports were necessary as a result of inappropriate hospital dispersal. Both the Transport Officer and Site Medical Coordinator worked in close liaison to achieve this rare outcome.

## CRITICAL SUCCESS FACTORS

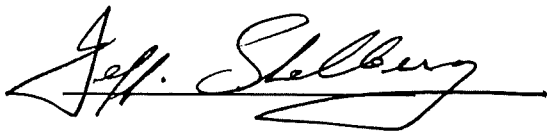
- ♦ *Time of day and day of week was conducive to adequate resources.*
- ♦ *I have researched MCM incidents for the past five years and attended most local and interstate debriefs of incidents in recent times. The lessons learnt from those events were valuable in the management of this incident.*
- ♦ *The regional MCM plan has been adjusted and tested many times in recent years, and, when activated worked according to plan.*
- ♦ *The Emergency Support Units played a critical role, and role specific units are necessary to resource events such as this.*
- ♦ *There was a high level of understanding of the principles of MCM by the senior officers at the scene.*
- ♦ *Early intervention on scene - site management (15 min).*
- ♦ *Use of bystanders effective - tow truck drivers.*
- ♦ *Air support - transport of medical teams to the scene, and rapid evacuation of casualties from the scene.*
- ♦ *Decongestion of scene - code 3 cases were the first to leave the scene for peripheral hospitals.*
- ♦ *Proximity of incident to major hospitals - less than 25 kilometres.*
- ♦ *Close liaison with medical co-ordinator - no tertiary transfers*
- ♦ *Accessible and controlled site.*
- ♦ *Proximity of helicopter zone - no effect from downwash.*
- ♦ *All service commanders were on first name basis*
- ♦ *Pro-active management of scene and activation of support agencies.*
- ♦ *Calm and controlled scene - low anxiety level*
- ♦ *Scene cleared of casualties in less than 2 hours, and all accounted for.*

## SUMMARY

Although the response and management of this event went smoothly and no significant problems were encountered, there are always amendments to procedures and recommendations that follow such incidents. The uncertainty and the unknown potential of the incident at the time of initial call is always the most tenuous and stressful to the responders, and, it is only when the full potential of the event is realised, then, and only then can management strategies be implemented.

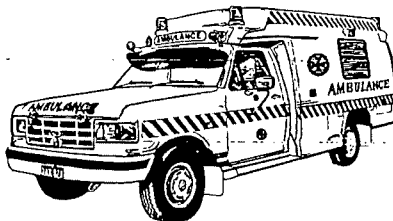
This event was the worst transport accident in Queensland's history in terms of deceased. However, there will be more incidents, and the response agencies must be prepared to meet all threats and events, because the public will expect no less from the Emergency Services.

*"What we have to learn to do, we learn by doing" - Aristotle*



Jeff. Shelberg

20 November 1994



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Boondall bus accident