The Western Australia Police Service, RoadWise and communities along the length of the Eyre Highway have joined together to improve road safety, road crash trauma management and emergency response to this, the most isolated of locations. The area represents the most remote but heavily traveled region of Australia. It is a major conduit linking the West and East coast. A vast number of freight and passenger carrying vehicles use the highway. Additionally, the location is a major international air route and shipping route, and the Indian-Pacific rail link parallels the highway.

Commencing with a recently completed pilot project, it has been decided to place a series of five insulated stainless steel sea containers, known as Emergency Response Equipment Receptacles (ERER), along and immediately beside 1000 kilometers of the Eyre Highway at strategically positioned communities within WA and SA. Each container will house a trailer equipped with fundamental emergency response equipment. This basic durable equipment will support victims of emergency events and those assisting them. Emergency events will primarily be road crashes, but may involve other incidents.

The containers will perform a secondary function in conveying highly visible road safety messages. The sides will carry slogans emphasising safe driving and the dangers of speed and fatigue; two factors that contribute significantly to fatal and serious road crashes on remote country roads. Thirdly, the units will be incorporated into Local Emergency Management Advisory Committee (LEMAC) plans and become central to annual multi-agency emergency response exercises. These exercises, with an emphasis on crash rescue and trauma management, will practice emergency response personnel and remote communities in life saving skills, as well as overcoming somewhat their sense of isolation and the tyranny of distance.

ROAD SAFETY IN WESTERN AUSTRALIA – THE FRAMEWORK FOR ACTION
The management and co-ordination of road safety is Western Australia is undertaken through a strategic structure combining direction from A Ministerial Council for Road Safety. The Ministerial Council is Chaired by the Minister responsible for road safety and includes representation from the Ministers for Health, Education, Local Government and Planning.

The direction for road safety policy and strategy as well as the co-ordination and development of community education road safety programs is overseen by the Road Safety Council of WA. This group consists of executive management personnel from the WA Police Service, Health, Education, Insurance Commission of WA, Planning, Main Roads WA, as well as an elected representative for Local Government and the Royal Automobile Club of WA representing road users of the State. The Road Safety Council is a unique structure in that it has an independent Chairperson, that is not aligned to any state government department or road safety stakeholder group, resulting in balanced resolutions and recommendations.

The Road Safety Council is supported by the Road Safety Council Officer Support Group which is made up of senior management level officers of each of the agencies or stakeholders represented on the Council. This group provides the knowledge, research and expertise on issues that require noting, action or advice from the Road Safety Council.
Emergency Response Equipment Receptacles (ERER)

The activities of the various agencies that support the State Road Safety Structure are further co-ordinated, administered and monitored by the Office of Road Safety. This is a dedicated service to make certain that activities and resources of the individual agencies are not duplicated and that they are meeting the targets set by the Road Safety Council.

In 2000 the Road Safety Council adopted a State Road Safety Strategy to further the work of the strategic frameworks adopted in WA. The State Road Safety Strategy also incorporates the objectives of the National Road Safety Strategy.

In conjunction with this, the Road Safety Council had also developed Regional Road Safety Strategies to deal with the range of road safety issues that, due to the vastness of the State of WA can greatly vary from community to community.

To ensure that the project is consistent and in line with the State road safety strategy, the Emergency Response Equipment Receptacles pilot project meets the following Road Safety Council objectives:

1) Increased Community Ownership and Participation in Road Safety: The ERER project has developed momentum over the last two years, fostering strong community support and participation in the Goldfields. A range of local agencies both government and non-government have given support for the project including local Roadhouse owners, FESA, the SES, St John Ambulance, the Royal Flying Doctor Service, local mining company Delta Gold, WA Police Service, RoadWise, Goldfields/Esperance Development Commission and communities along the Eyre Highway. Lengthy consultation with all community members has demonstrated a very positive response and willingness to participate in the project. Community consultation and participation has been integral to the development of the ERER project.

2) Better Road Safety Coordination: The ERER project is a good example of a number of agencies coming together with a common goal and action plan. In the event of a road crash or other emergency situation, the ERER project would bring agencies together so that those providing initial response could do so in an efficient and coordinated manner, ensuring a greater chance of survival for victims.

3) Safer Road Users: The ERER containers carry slogans emphasizing safe driving and the dangers of speed and fatigue, two factors that contribute significantly to fatal and serious road crashes on remote country roads. Passing motorists on the Eyre Highway will be exposed to these road safety messages and reminded to drive safely.

4) Optimised Trauma Services: The ERER containers house a trailer equipped with fundamental emergency response equipment. The ERER project aims to empower those providing initial response with the ability to help in a practical way until professional help arrives. The relatively rapid provision of basic care and reassurance is essential. It is unarguable that the provision of commodities such as shelter from sun, wind or rain, seating and stretchers, blankets, water, anti-infection agents and material to stem blood flow, would save lives and reduce the effects of trauma. The units will also be incorporated into Local Emergency Management Advisory Committee (LEMAC) plans and become central to annual multi-agency emergency response exercises. These exercises will train emergency response personnel and remote communities in life saving skills, with an emphasis on crash rescue.

BACKGROUND – THE NEED FOR ERER

In dealing with the core function of Traffic Management and Road Safety, the WA Police Service (WAPS) is faced with numerous challenges. In the Kalgoorlie Police District, which is host to this project, speed, driver fatigue and responding to resultant road crashes involving multiple fatalities and serious injuries have particular significance. FESA/SES are restricted in providing their life saving services by the tyranny of distance and RoadWise are faced with similar difficulties in reducing the effects of Road Trauma. At present our resources and emergency response capability, particularly in heavily travelled but remote locations are grossly inadequate. For example, should an interstate passenger coach crash, as occurred in Grafton NSW, resulting in multiple fatalities and critical injuries, victims would perish or suffer dreadfully because of our lack of preparedness.

The vast driving distances involved in travelling on our major highways are of particular concern. Drivers are reluctant to take rest stops and attempt to drive unrealistic distances without rest. Heavy road-train type trucks, passenger coaches, light vehicles towing caravans and other vehicles of every category use the roads extensively. The Great Eastern and Eyre Highways are often narrow and engineered with sloping gravel shoulders. The
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east/west orientation and long straight, level stretches of highway necessitate vehicles alternately being driven into blinding sunshine or glaring vehicle headlights. Heavy commercial vehicle use often leads to a breakdown of the road surface, and conflict with feral and native fauna is an ever-present hazard. These factors represent challenges to already fatigued drivers.

It is unarguable that the Eyre Highway between Ceduna in South Australia and Norseman in Western Australia, a distance of 1200 kilometres, is the most sparsely populated but heavily travelled section of road in Australia. The highway traverses some of the country’s most inhospitable terrain with temperatures ranging from well below freezing in winter to intensely hot in summer.

It is the main conduit for heavy freight vehicles, passenger coaches, tourists towing caravans and single light vehicles linking the Eastern states and Western Australia. At present in excess of 140 000 vehicles travel the route annually and it is predicted commercial and tourist traffic will increase significantly over the next decade.

A significant number of serious and fatal crashes on this Highway involve heavy vehicles and are fatigue and speed related.

Last year approximately 2 000 passenger coaches passed across the WA/SA border. Major passenger coach operators run regular, daily, overlapping services along the Eyre Highway. Many of these coaches have a capacity in excess of sixty passengers.

Should a passenger coach be involved in a crash, particularly a head-on crash involving another heavy vehicle, on a remote stretch of the Eyre Highway, a significant number of people would perish and many would require urgent medical intervention. It is evident that at present, initial and emergency response to such an event would be inadequate and overwhelm those attending. It would be many hours before all victims received specialist attention.

Recently, on the Eyre Highway a single crash victim was trapped for twenty hours awaiting the equipment to free him. During this time a small community of those providing life saving support built up around the crash scene. Operating in well below freezing temperatures, in driving wind and rain, these people endured harsh conditions and suffered because of a lack of basic equipment. At one stage they scavenged in a motel rubbish tip for discarded tins with which to make improvised flares to light the highway allowing an RFDS aircraft to land. These delays and the harsh conditions attributed to the subsequent amputation of the victim’s leg.

If larger numbers of victims were involved, and considering extended response times and the extremes of weather, those suffering serious or even moderate injury complicated by shock could perish quickly. The relatively rapid provision of basic care and reassurance is essential. It is inarguable that the provision of commodities such as shelter from sun, wind or rain, seating and stretchers, blankets, water, anti-infection agents and material to stem blood flow, would save lives and reduce the effects of trauma. Moreover, considering the triage process and the limited number and capacity of emergency evacuation means, highway users and adjacent community members would be left to provide care and comfort to gravely ill victims for significant periods of time.

At present there are no plans and few resources in place, which would minimise the loss of life resulting from a crash involving multiple victims, particularly a passenger coach. It is unacceptable to regard this catastrophic event as a remote possibility, and use this as an argument against developing and implementing a management plan. It is incumbent on emergency service providers to plan for such an event, such plans being based on a worst-case scenario in line with contemporary risk management practice.

**Pilot Project:**

In March this year, concluding two years of community consultation, research, marketing and planning, a single ERER unit was established at the Roadhouse community of Balladonia 200 km East of Norseman on the Eyre Highway. The pilot project was established with funding from RoadWise, the WA Police Service and FESA, and community support, particularly Delta Mining Company and communities along the Eyre Highway.

The pilot project was essential in establishing the feasibility of what is an entirely original concept. Lessons learned in completing the pilot project will be employed in now finishing the program by establishing an ERER at each of five strategically placed communities or roadhouses situated along the length of the Eyre Highway. These communities have been identified as the Nullarbor Roadhouse, South Australia, Eucla - Amber...
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Roadhouse, Madura Pass Roadhouse, Ciaguna Roadhouse, and Balladonia Roadhouse. Lengthy consultation with all key community members has demonstrated a very positive response and willingness to participate in the project.

As with the pilot project, each subsequent ERER will contain a trailer stocked with appropriate, durable and basic response material as previously described. It is not the aim of the ERER project to provide qualified sophisticated first aid and complex equipment, which would require extensive training and expert personnel. But, rather to empower those providing initial response with the ability to help in a practical way until professional help arrives. Complexity will defeat the simple purpose and reduce the efficiency and effectiveness of the ERER concept.

Each ERER will be displayed in a predominant roadside location at each community, and for security reasons immediately adjacent to and in view of a 24-hour roadhouse. Each unit will be painted and marked distinctively and carry a high impact, innovative road safety message emphasising the dangers of fatigue and speed and perhaps drugs, drink driving or defective vehicles.

THE CONSULTATIVE PROCESS
Integral to the establishment of the pilot project and gaining acceptance for the ERER program was community consultation. As an example, in recognition of the role of the heavy transport industry in remote area road safety, during a 72-hour period at the WA SA border in 1999 every truck entering the State was stopped and the driver handed road safety literature and material explaining the ERER concept. As well, a survey form was distributed to drivers seeking comment on the need to establish such a program. Whilst only twenty-two responses were completed and returned, all were supportive. Furthermore Police Officers interacting personally with drivers reported support for the proposal to be unanimous.

In 1999 a personal presentation was made to the Annual General Meeting of the Eyre Highway Business Operators Association, which represents all major businesses on the highway, including those in South Australia. Subsequent discussions with attendees were in the form of consultation, seeking feedback and ideas on improving the concept. Attendees enthusiastically participated and were unanimous in their support. As a follow-up to this meeting a number of personal visits were made to each roadhouse over a two-year period to consult with managers and staff, provide status reports and seek input into the progression of the project. The media were included as a means of community consultation with all media participating in the dissemination of information.

Over the two-year development and implementation period a series of consultation meetings were held with all regional road safety and emergency management agencies. In 1999 a personal presentation was made to the Chief Medical Officer of the Health Department and the WA Police Service Assistant Commissioner for Traffic and Operations Support was kept apprised and consulted at all stages.

RESEARCH IN THE FIELD
Extensive research has failed to establish that a similar program exists anywhere in the world. Therefore the project is considered unique and establishes best practice in combining remote area road safety, trauma management and emergency response into a single concept.

COMMUNICATION STRATEGIES
Throughout the development and implementation phase of this pilot project consultation and communication were contemporaneous. However, once the pilot project was established and in order to publicise and gain support for completing the program, a series of presentations were made to high profile symposiums. These included the 2001 Annual Road Safety Council Conference and the recent Fire and Rescue Services Western Rescue Symposium.

TRANSFER OF IDEAS
The ERER pilot project and indeed the entire program has been established with the idea that, should it prove to be of benefit on the Eyre Highway, it can be duplicated and extended to include other remote locations within Australia. As the result of communication strategies, keen interest has been expressed by other State and
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interstate groups involved in road safety and emergency response to road crashes. Representatives of remote Aboriginal communities believe the concept can play a significant role in improving road safety and trauma management in their areas.

MONITORING AND EVALUATION OF ERER
The nature of the program limits the availability of quantitative data. In order to overcome this shortfall expert testimony on the value and expected outcome of the project is currently being provided by Professor Bryant Stokes, the Chief Medical Officer of the WA Health Department.

Anecdotal data has been provided by the President of the Eyre Highway Business Operators Association and Manager of the Balladonia and Norseman Roadhouses in the form of a letter. The Officers in Charge of both Eucla and Norseman Police Stations, which are situated at either end of the WA section of the Eyre Highway, report a keen interest in the ERER program by all road users and a heightened awareness of road safety.

Evaluating the effect of road safety signs is subjective. However there is existing research which indicates that creating high impact, innovative messages targeting driver fatigue and speed and delivering them to an area where these two factors are significant problems will have some effect on driver behaviour. Furthermore, research with advertising companies has demonstrated that the total cost of each ERER unit, inclusive of trailer and equipment, is significantly less than the cost of constructing a similar sized, double sided sign.

The WA Police Service and RoadWise will provide for a major evaluation of the project after a five-year period. Annual evaluation will be provided for in the local police sub-district Business Plans.
## Appendices

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