



How Safe Are Our Roads?

Rating Northern Territory's Highway Network for Risk

Benchmarking the performance of Northern Territory's roads in the Decade of Action

2011

Why Road Safety is Important

Many road crashes involve sudden loss, untold suffering and financial hardship, and they change the lives of people forever. Safe personal travel should be a key feature of modern society but unless road tragedy personally touches us or our loved ones, we sometimes don't reflect on how big a problem it is.

Across Australia around 1,400 people are killed each year and more than 32,500 are hospitalised. This averages four deaths and nearly 90 serious injuries on Australian roads and costs our community on average \$74 million each and every day.

Most crashes occur when ordinary people make everyday human mistakes. It has been estimated that around 1 in 500 driving decisions can be wrong, involving a mistake, an error of judgement, a missed signal or the like. Sober, drug-free, responsible drivers obeying the speed limit and wearing seatbelts frequently die on our roads. Safe roads minimise the chances of these crashes happening, and if they do occur, they minimise the severity of the crash. Engineering measures to improve safety don't have to be high cost and best of all, they last decades!

We need to create a genuinely safe road system, in which improving the safety of drivers, vehicles and roads is of mutual importance. A road system where we have five star drivers, in five star cars on five star roads should involve no deaths.

It is estimated that of all road fatalities which can be avoided through improved safety, half of these would be

avoided through road upgrades including investment in new road construction and expenditure on safety-related works. Australia's National Road Safety Strategy 2011-2020 recognises the critical need to improve road infrastructure, particularly those road features which are designed to reduce run-off-road, intersection and head-on crashes.

Making this happen requires the commitment of politicians, based on support from the public, funding from treasury, road authority action, and the design and construction skills of road engineers.

AusRAP is here to help all of these stakeholders, and aspires to help Australia become a nation free of high risk roads.

About AusRAP

The Australian Road Assessment Program (AusRAP) is a program run by the Australian Automobile Association and State and Territory automobile clubs, dedicated to saving lives through advocating for safer road infrastructure.

AusRAP's objectives are to:

- reduce deaths and injuries on Australia's roads by systematically assessing risk and identifying safety shortcomings that can be addressed with practical road-improvement measures; and
- put risk assessment at the heart of strategic decisions on road improvements, crash protection and standards of road management.

AusRAP works in partnership with government and non-government organisations to:

- inspect national and state highways and develop Star Ratings and Safer Roads Investment Plans;
- track road safety performance through risk maps so that funding agencies can assess the benefits of their investments; and
- explain the benefits of safer road infrastructure to the community by describing why some roads are safer than others.

Rating Australia's Network for Risk

In total, we have analysed more than 20,000 km of the highways which represents less than three per cent of the total road network in Australia, yet carries some 15 per cent of the nation's road traffic. This network experienced 1,170 road crash deaths, equating to 15 per cent of all road deaths in Australia during 2005-2009.

The AusRAP analysis focuses on casualty crashes that occurred between 2005 and 2009 on rural sections of the National Land Transport Network and significant connecting roads. These are generally defined as being those with a speed limit of 90km/h or more, though some lower speed limit sections are included where they form an integral part of an otherwise higher speed route.

For the results of risk across Australia's network see the companion report *How Safe Are Our Roads? Rating Australia's National Network for Risk*, available from www.ausrap.org.

Rating Northern Territory's Network for Risk

This brochure is a companion report to *How Safe Are Our Roads? Rating Australia's National Network for Risk* and provides detailed results for the most improved and persistently higher risk roads in the Northern Territory. This brochure complements the broader national picture and provides an extra level of detail on Northern Territory's roads.

Four highways were assessed in Northern Territory, totalling 2,652km in length. The length assessed of each highway and number of casualty crashes and deaths that occurred during 2005-2009 are shown in Table 1.

The 2,562km network in Northern Territory represented 13 per cent of the network analysed throughout Australia and the 72 deaths that occurred during 2005-2009 represents six per cent of the total national network assessed.

Change in Network Crash Risk

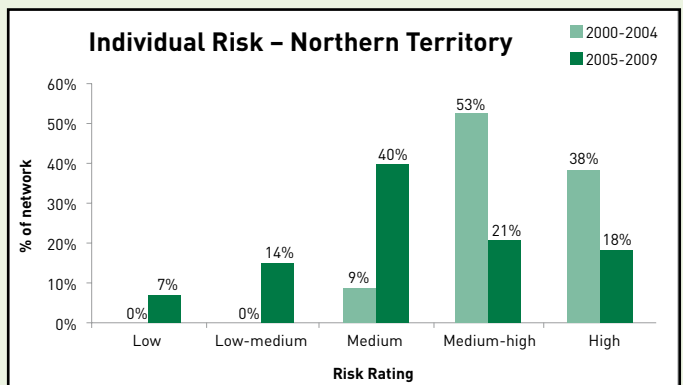
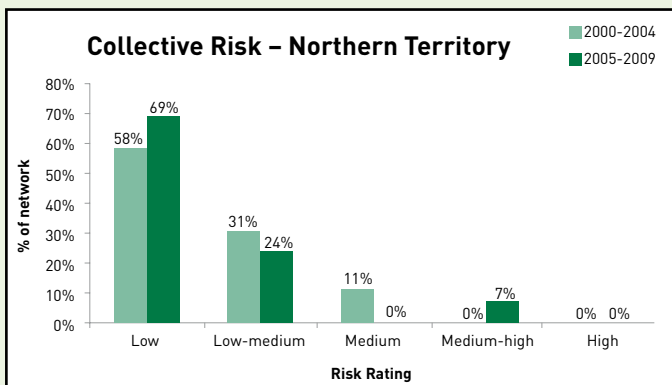
The collective risk graph for Northern Territory's Network, over, shows an increase in the percentage of categories at both ends of the scale, i.e. greater low risk and high risk roads, in the period 2005-2009 when compared to 2000-2004.

The graph for individual risk on Northern Territory's Network, over, which measures the casualty crash rates per vehicle kilometre travelled – that is the rate for each kilometre travelled by a vehicle, and so effectively represents the risk faced by an individual driver shows an improved level of risk when 2000-2004 is compared to 2005-2009. It is pleasing to see that only 39 per cent of the network rated as medium-high or high risk in 2005-2009 compared to 91 per cent in 2000-2004 – a change

TABLE 1: HIGHWAYS RATED IN NORTHERN TERRITORY

Highway	From - to	Length		Casualty crashes		Deaths	
		km	%	2005-09	%	2005-09	%
Barkly Highway	Stuart Hwy to QLD border	434	16%	23	4%	1	1%
Stuart Highway	Darwin to SA border	1,749	66%	468	91%	65	90%
Victoria Highway	Katherine to WA border	469	18%	23	4%	6	8%
Total [1]		2,652	100%	514	100%	72	100%

[1] Percentages may not total 100 per cent due to rounding.



of 52 per cent. None of the network was rated in either of the two best risk categories (low or low-medium) in 2000-2005, but in 2005-2009 21 per cent of the network was rated in these categories.

Performance Tracking

Performance Tracking uses the data compiled for each risk map to assess how the risk on the network, as a whole, and on individual road sections, had changed over time. It is a way of measuring success and the effectiveness of investment in safer roads.

Since 2005, AAA and the State and Territory Motoring Clubs have been mapping the rate of death and serious injury on Australia's main highways. This year, for the first time, and to coincide with the start of the *Decade of Action*, we have also tracked the risk rates across Australia. For this report, crash and traffic data for the period 2000-2004 has been compared to 2005-2009, and we have identified the most improved and persistently high risk roads.

The results of the *Most Improved* highway sections in the Northern Territory are presented in Table 2 below.

It is often difficult to be definitive about the cause of a reduction in casualty crashes on any given section of road. Frequently, the improvement in safety is the result of a combination of factors which can include reductions in traffic volumes, road upgrades, improvements in vehicle safety and changes in police enforcement.

Improvements which have occurred on the above lengths of road include:

- Stuart Highway overtaking opportunities Darwin to Katherine
- Work to widen the road pavement on various sections of the Stuart, Victoria and Barkly Highways
- Various intersection improvements on these three highways
- Infrastructure Road Safety initiatives including fatigue management on Stuart, Victoria and Barkly Highways (truck parking bays/rest areas)
- Easing access to Darwin with Tiger Brennan Drive off Stuart Highway.

TABLE 2: NORTHERN TERRITORY'S MOST IMPROVED HIGHWAY SECTIONS

Road Name	From – to	Road type	Casualty crashes	Individual risk rating	Casualty crashes	Individual risk rating	Change in casualty crashes 2005-2009
			2000-2004		2005-2009		
Victoria Highway	Timber Creek to WA border	Single	18	High	4	Low	-77.8%
Barkly Highway	Wunara to QLD border	Single	25	High	10	Medium-high	-60.0%
Stuart Highway	Pine Creek to Katherine	Single	50	Medium-high	20	Low-medium	-60.0%
Stuart Highway	Katherine to Daly Waters	Single	46	Medium-high	25	Medium	-45.7%

No other section of highway in Northern Territory classifies as Most Improved.

Ranked by percentage reduction in the number of casualty crashes between 2000-2004 and 2005-2009; significant reduction in the number of casualty crashes between data periods at the 98% confidence level; section lengths are greater than 7km; AusRAP Risk Rating based on the number of casualty crashes per 100 million vehicle km travelled: black (high risk), red (medium-high risk), orange (medium risk), yellow (low-medium risk).

TABLE 3: NORTHERN TERRITORY'S PERSISTENTLY HIGH RISK HIGHWAY SECTIONS

Highway	From-To	Type	Casualty crashes	Individual Risk Rating	Casualty crashes	Individual Risk Rating	Change in casualty crashes
			2000-2004		2005-2009		
Stuart Highway	Darwin to Pine Creek	Single	140	Medium-high	262	High	87.1%
Stuart Highway	Alice Springs to SA border	Single	41	Medium-high	50	High	22.0%
Stuart Highway	Barkly Hwy to Stirling	Single	43	Medium-high	30	Medium-high	-30.2%
Stuart Highway	Helen Springs to Barkly Hwy	Single	18	High	12	Medium-high	-33.3%

No other section of highway in Northern Territory classifies as Persistently High Risk.

Ranked by AusRAP Risk Rating 2005-2009; no significant reduction in the number of casualty crashes between data periods; section lengths are greater than 7km; AusRAP Risk Rating above average of the medium-high (red) category or high risk (black) category in both data periods; AusRAP Risk Rating based on the number of fatal or serious crashes per 100 million vehicle km travelled: black (high risk), red (medium-high risk), orange (medium risk), yellow (low-medium risk), green (low risk). Some of the roads listed may have had measures implemented since 2009.

In addition, the speed limit on these highways was reduced to 130km/h from 1 January 2007.

Unfortunately the analysis has also identified a number of sections of highway where numbers of crashes have not significantly reduced. After statistical testing it was found that three of these sections had a change in casualty crashes that was not significant, and therefore considered to be persistently high risk. The results of the top *Persistently High Risk* sections of highway are shown in Table 3.

More information

For detailed information on the risk ratings for Northern Territory's network, including maps and the best and worst roads, see pages 36 to 39 of the *How Safe Are Our Roads? Rating Australia's National Network for Risk*, published in 2011, available from www.ausrap.org