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Ms Meg Crooks,
Secretary
House of Representatives Standing Committee
on Communication, Transport, and Arts
Parliament House
CANBERRA ACT 2600

Dear Ms Crooks,

Inquiry into managing fatigue in transport

Thank you for your letter of 5 May 1999, inviting me to make a submission this inquiry. I would be grateful if you could bring the following letter to the attention of the Committee, as a submission.

The issue of fatigue in transport is considered an important one. My remarks are of a general nature. They will mostly be confined to road, rail, air and sea transport, and raise a number of questions that the Committee may wish to examine.

1. GENERAL COMMENT

Fatigue may be defined as (Encyclopedia Britannica, older edition) as "*...a condition of impairment, resulting from prolonged mental or physical activity or both, usually removable by rest.*"

As noted below, fatigue in road transport appears to have received more attention in the 1990s, than in earlier decades. The Chairman's call for submissions (Paul Neville, MP, May 1999) notes that fatigue in the Australian workplace is estimated to cost up to \$1.7 billion a year in accidents and injuries, plus other costs. How much of this is due to transport is an interesting question.

Estimates of the total cost of accidents for different transport modes in 1988 and 1993 due to the Bureau of Transport and Communications Economics are shown in Table 1. Whilst loss of life tragically occurs with rail operations from time to time, the numbers (49 in 1993 excluding suicide) pale into insignificance when compared with road crashes, which in 1993 resulted in 1953 fatalities. These road fatalities, along with road crashes requiring over 17 000 hospital admissions and a further 47,000 injuries needing medical treatment, resulted in road transport accounting for about 93 per cent of the cost of all transport accidents in 1993. Updated data is now awaited for all transport modes.

TABLE 1 TOTAL COSTS OF TRANSPORT ACCIDENTS IN AUSTRALIA

Mode	millions of dollars (percentages in brackets)			
	1988	1988	1993	
	1988 terms	1993 terms	1993 terms	
Rail	94.5	120	(1)	69 (1-)
Aviation	64.0	80	(1)	76 (1+)
Maritime	263.7	318	(4)	316 (5)
Road	6130.8	7400 (approx)	(94)	6136 (93)
TOTAL	6552.9	7920 (approx)		6597

Reference Bureau of Transport and Communications Economics (1992) Social costs of transport accidents in Australia and (1995b) Information Sheets 4, 5, 7 and 8.

TABLE 2 NUMBER OF FATALITIES RESULTING FROM ROAD CRASHES IN AUSTRALIA 1986-1996

Year	Involving Articulated trucks	Involving Rigid Trucks	Involving Buses	Involving All Vehicles
1986	232			2888
1987	243			2772
1988	320			2887
1989	335	na	104	2801
1990	263	289	46	2331
1991	183	320	32	2113
1992	181	246	39	1974
1993	204	236	49	1953
1994	179	223	40	1928
1995	199	215	23	2017
1996	172	na	38	1977

Reference Road Fatalities Australia 1997 Statistical Summary

2. ROAD TRANSPORT

Fatigue in road transport is long standing. One concern, as noted by a Queensland Royal Commission on Transport and Harbour Problems report in 1936 was that of "...men working very long hours on truck driving, often to the detriment of their health and with grave danger to the public" Such a theme has been very apparent for the remainder of the 20th Century. Yet, the term fatigue does not appear extensively in some (but not all) road safety literature up to the late 1980s. One example is a report dated April 1977 Heavy Vehicle Safety from the House of Representatives Standing Committee on Road Safety referring to fatigue on page 69 in the context of 'Driving comfort' in a Chapter on

Accident Avoidance (Chapter 4, pages 39-72) after braking, steering, suspensions, tyres, couplings for articulated vehicles, loading, and vision. A further example is Staysafe (Parliament of NSW Joint Standing Committee on Road Safety) #11 report 'Safety of 2-Lane Country Roads' dated September 1987 with fatigue getting a brief mention on page 36 in connection with single vehicle accidents along with alcohol and 'going -to-sleep-at-the-wheel' following a mention on page 34 of drivers 'whose attention waivers'.

This situation changed with the release of the Staysafe #15 report 'Alert drivers, and safe speeds, for heavy vehicles' dated September 1989. This report made frequent reference to fatigue, and cites (page 7) a study undertaken by Dawn Linklater in 1977, finding "*...evidence of fatigue amongst the drivers in the form of 40.7 % of the 615 drivers using stimulant drugs, 28.8 % reporting hallucinations whilst driving within the preceding year, and an average 71.6 hour working week. She also reported that 59.6 % of the truck drivers nominated driver - fatigue factors as contributing to truck crashes. Linklater, 1978, deduced from questionnaire responses that heavy vehicle drivers who exceed 55 hours of driving/week have an increased risk of crash involvement compared with others.*"

Staysafe Report #15 considered, inter alia, (p8) that there is a substantial *fatigue problem amongst heavy vehicle drivers in NSW ...*, questioned the lifting of legal speed limits for heavy vehicles from 80 km per hour to 90 km per hour on 1 January 1987, and then to 100 km per hour on 1 July 1988 (the latter with the strong support of the Federal Office of Road Safety) without compensatory measures such as tachographs.

2.1 Competition, and road safety

This section is adapted from 'Intercity land freight transport in Eastern Australia', Working Paper 1996/6, Centre for Resource and Environmental Studies, Australian National University. Strong competition within the interstate road transport industry, aided by better roads and trucks, has allowed road freight rates to fall in real terms. In terms of cents per net tonne km (ntk) the BIE (1992, 1995) notes an average door-to-door rate for the Sydney - Melbourne corridor of about 8 cents per ntk in 1991 falling to a low 4.1 cents per ntk in 1995 with Sydney - Brisbane rates falling from about 10 cents per ntk in 1991 to 6.3 cents per ntk in 1995, and, Melbourne - Brisbane rates taking intermediate values. Whether rail competition from National Rail and other interstate operators is now (in 1999) a factor driving down line haul road freight rates is a good question.

The strong competition is not without its costs, including numerous reports over the years of incidents of excessive driving hours, overloading, speeding, and road crashes. It is well known that certain truck drivers are induced to drive for unduly long hours, with a study (Hensher D, Battellino H, Gee J L and Daniels R F (1991) et al, Long distance truck drivers on-road performance and economic reward, FORS, Canberra) finding that the average number of driving hours for all drivers was 67 hours per week. Some truck drivers are also known to speed and/or overload to gain an advantage over other truck

drivers. The extent of long truck driving hours, speeding and or overloading also affects "competitive neutrality" between road and rail freight.

To remedy this situation within the trucking industry, and to improve road safety, a National Inquiry (May T, Mills, G and Scully, J (1984) National Road Freight Industry Inquiry Report, AGPS, Canberra and the New South Wales State Coroner (1990) Report on the adjourned hearing into the inquest touching the deaths ... as the result of a collision between a semi-trailer and a motor coach at Cowper, near Grafton, on 20th October, 1989 recommended that consideration be given to quality licensing. This would give entry controls to the industry as a means of removing that minority that puts safety at undue risk and persistently overloads above legal weight limits. The approach, as agreed to by the Australian Transport Council at its meeting of October 1994, is for the introduction of a national accreditation system for heavy vehicles. The National Road Transport Commission (NRTC: Annual Report 1994-95) notes the concept of alternative compliance to increase compliance with legal requirements and national consistency. However, national uniformity has not always served NSW well. National increases to 100 km per hour for the heavy vehicle open speed limit in 1988 had to be reviewed in NSW - a year when fatal road crashes involving articulated trucks saw a loss of 250 lives in NSW. Proposals made by the NRTC in the mid 1990s for longer legal driving hours in NSW then received justified criticism from NSW authorities.

The concept of the form of operator licensing put in place in New Zealand under the Transport Services Licensing Act 1989 has many advantages. The New Zealand scheme requires goods service licence holders to hold a certificate of knowledge of law and practice concerning the safe and proper operation of a goods service, and, provides a mechanism to remove from the roads, or positions of forwarding freight, operators who put safety at risk. However, as shown by the 1996 Report of the New Zealand House of Representatives Transport Committee on the Inquiry into Truck Crashes it is one thing to have well written legislation, and it another matter to have it properly enforced.

Data provided by the NSW Roads and Traffic Authority from nine years from 1 January 1988 to 31 December 1996, shows a **loss of 438 lives in fatal crashes involving articulated trucks on major NSW intercity highways** (see Appendix A which also shows such fatalities were approximately 38 per cent of all fatalities on these highways).

A study by the Australian Road Research Board (Australian Road Research Board, 1991, Improving truck safety in Australia) found that throughout the 1980s, about 400 lives a year were claimed in fatal crashes involving trucks with a further 1700 serious injuries a year and the total cost of all accidents involving trucks conservatively estimated at about \$500 million a year. The ARRB report also noted that compared with the United States, Britain and Finland, and whilst such comparisons are difficult, truck fatal accident rates in Australia were approaching double that of the other countries compared. The National Transport Planning Taskforce, Building for the job, 1994, p27) noted that the

number of fatal road crashes involving articulated vehicles had almost halved from 1988 to 1992 and appears to remain at the lower level. However, heavy vehicle safety remains an important issue.

2.2 Tachographs

The question of the compulsory installation of tachographs may be of interest to the Committee. The 1977 Heavy Vehicle Safety report cited above notes that some trucking organisations used a tachograph which is a type of 'in flight' recorder that can provide supervisors with information such as engine speed, vehicle speed, and time, and '*...therefore enable a close watch to be kept on the way a vehicle has been driven*', also, tachographs are unpopular with some drivers.

The 1980 Commission of Enquiry into the NSW Road Freight Industry, with sole Commissioner Mr. G. McDonell, whilst recognising the importance of road freight to a modern society made a number of recommendations including consideration of tachographs.

Compulsory tachographs were recommended for most articulated trucks by the National Road Freight Industry Inquiry in 1984, as part of a package of 98 recommendations. In 1986, regulations of the Council of the European Communities (EEC) required the installation (by approved fitters only) of equipment that clearly records distance travelled, speed and time on heavy trucks used in road transport.

As noted above, legal speed limits were relaxed in 1987, and 1988. As noted by Staysafe report #15, there was a marked increase in fatal crashes involving articulated trucks. By July 1989, following ongoing fatal road crashes involving semitrailers, the NSW Minister for Transport, Mr. Bruce Baird was reported (SMH 8/7/89) as seeking Cabinet approval 'within the next few weeks' for tough new measures, including the automatic cancellation of licences for speeding an amount in excess of the new 100 km/hr limit, and the 'likely mandatory installation' of tachographs in large trucks. However, the road transport industry strongly resisted compulsory tachographs. It instead urged speed limiters only. This view was supported by the then Federal Transport Minister Bob Brown MP who announced that a new Australian Design Rule would require speed limiters for all new trucks as of 31 July 1991.

However, at a NSW State Cabinet meeting held in Cootamundra on 26 September 1989, tachographs were deferred. This was despite the strong support for tachographs in NSW that had come from:

The NSW Minister for Transport, Bruce Baird, and hence the Roads and Traffic Authority.

The NSW Police,

The NRMA, and

The NSW Parliamentary Road Safety Committee, STAYSAFE

Following the crucial NSW State Cabinet meeting on 26 September 1989, various media reports occurred. One was that the Cabinet passed up "going it alone" in requiring tachographs by one vote (Illawarra Mercury 30/9/89) after the Ministers had been lobbied before at dinner by ". . .no less than 20 burly members of the truck drivers' lobby group, the Road Transport Association, who sat on every table of the Cootamundra dinner to nag the ministers on this issue."

The Daily Telegraph noted (30/9/89) that how during the dinner, trucking industry lobbyists secured strategic seats at tables so they could earbash Ministers about the evils of tachographs. *"By the end of the dinner, the trucking lobby was openly boasting that it had the numbers in Cabinet to defeat any proposal for compulsory tachographs."*

After the Cabinet meeting, Mr. Baird and Premier Greiner emerged with a road safety package, with increased penalties for excessive speeding and speed limiters for heavy trucks and buses. Tachographs were deferred pending more information as well as support from other States and the Commonwealth before a decision was made (SMH 27/9/89). This was seen by some commentators as "Baird rolled by truckies" and a win for the road freight industry.

2.3 The Pacific Highway crash of 20 October 1989

The tragic accident claiming the loss of 20 lives on Friday, 20th October, 1989 near Grafton involving a collision between a semi-trailer and a long distance coach, also highlighted excessive working hours - both loading and driving - for a truck driver raising questions of fatigue. The following EDITORIAL **ROAD TRANSPORT NEEDS REGULATION** from a November 89 Consumers Transport Council (CTC) Newsletter is considered as fair comment, with bold added since for emphasis:

On Friday, 20th October, 1989, the worst road crash in Australian history took place near Grafton. Twenty people were killed in a collision between a semi-trailer and a long distance coach.

If tragedies like this are to be avoided in the future there must be an honest examination of the present state of affairs on Australian roads. The comments as reported (The Australian 21/10/89) of NSW Transport Minister, Mr. Baird sum it up: "A large section of the (heavy vehicle) industry is out of control. . .We have tried self-policing and it does not work".

Our roads should not be like a battlefield, calling for extremes of human endurance. Lets be honest and admit that over 70 hours work driving each week is too much and that truck drivers' hours should be reduced, not increased. Truck speed limits have been increased. There is no excuse for drivers who risk safety by travelling still faster.

Many NSW highways are inadequate for the large vehicles that now use them. But it is unrealistic to call for better roads without asking large trucks and coaches to contribute their fair share of the costs of road upgrading.

The issues have often been raised before, with several major Government enquiries being held. It is clear that the road freight industry has been slow to assume its responsibilities. At the present rate of progress it will be many years before full road cost recovery is achieved.

One important step in improving road safety and public confidence in the industry could be taken quickly. That step is the fitting of tachographs. Many owners of vehicle fleets already use them, and one was reportedly fitted to the ill-fated coach in the Grafton crash. Honest drivers and honest companies have nothing to fear from their use. Indeed they can exonerate drivers from allegations of speeding, just as the locomotive speed recorder ruled out excess speed as the cause of the Granville rail disaster.

Tachographs would both discourage speeding and help prevent drivers from spending too many hours behind the wheel. If in the future they are also used for a fair system of road charges, to fund better and safer roads, the road freight industry would benefit. The rapid growth of the industry suggests that it could well afford reasonable charges.

Since the industry has not agreed to adopt tachographs voluntarily, then Governments must make them compulsory. The Federal Government, having encouraged the States to permit heavier and faster trucks on our roads, must accept its responsibilities for road safety and not leave the hard road safety options up to the States alone.

2.4 Do we have too much trucking in Australia ?

As noted by the Business Council of Australia in 1996, and by Austroads in 1997 (Australia at the crossroads, page 17) **Australia has the world's the highest road freight per capita** (measured in net tonne-kilometres per head) with latest ABS data indicating some 119 billion tonne km for 1995 (or about 6500 net tonne km per person per annum). Whilst much land freight activity is now most effectively performed by road trucks, the dubious distinction of Australia having high road freight per capita has arisen in part because road transport undertakes significant interstate and bulk freight tasks. Some of these freight tasks could be performed by an upgraded rail system.

It may then be asked: does Australia have the world's the highest rail freight per capita? The answer is no, as Canada's rail freight task in billion tonne kilometres is more than double that of Australia, and Canada's population is not double that of Australia.

As noted by the predecessor to this Committee in 1987 (House of Representatives Standing Committee on Transport, Communications and Infrastructure, *Constructing and Restructuring Australia's Public Infrastructure*, 1987), road transport is being encouraged by hidden subsidies (some \$1406 million a year for articulated trucks was noted by the Committee) into freight movements that would be better done by rail. The Committee, thinking rightly that little progress had been made, in 1989 bluntly stated (Rail: Five

systems, One Solution, p) that :"*...The plain fact is that a greatly increased amount of freight could be carried across the continent by rail more efficiently and with greater safety than it ever could be by road. Road has been preferred because it is seen as providing reliable transit times. If rail were more efficient and carried the amount of freight it should, lives would be saved, less non-renewable resources would be used and less pollution would be generated.....Australia is paying the price of neglect and bandaid solutions in an endeavour to solve problems in its rail systems. ... Rail has been starved of funds and rendered inefficient.' "*

Findings such as these, coupled with the ongoing and tragic loss of lives in road crashes involving semitrailers, were factors leading to agreements reached between Federal, State and Territory Governments at a series of Special Premiers Conferences, for the formation in 1991 of a National Rail Corporation (NRC), and, a National Road Transport Commission (NRTC). However, as shown by the Committees 1997 report on roads, and its 1998 report on rail, much remains to be done.

In the meantime, as reminded by Robert Gottliebson writing for Business Review Weekly on February 22, 1999, road for intercity line haul is a high cost option. Australia's over-reliance on road haulage imposes significant costs, including higher road maintenance costs, higher road construction costs, demand for bringing forth road works, and road crash risk. As well, air pollution and greenhouse gas emissions result from the use of at least an additional 100 million litres of diesel each year than would be used if Australia had efficient rail track alignment between its three largest cities, and improved competitive neutrality.

In the meantime, the least the motoring public can expect is that truck drivers hours of operation are reasonable and realistic, and, along with speed and weight of loads, driving hours are tightly enforced. This may well require an increase in staffing resources to the State road authorities. For example, in NSW B-Boubles and long distance buses are required to have tachographs, but how often does the Roads and Traffic Authority of NSW get to check the records of at least some of the tachographs ? Here, STAYSAFE 16 in its 1990 report on B-Boubles expressed a concern about the commitment of the NSW Roads and Traffic Authority to adequate supervision of B-Boubles, and asked about their safety record vs normal articulated trucks.

Where 'alternative compliance' is allowed to be used for road freight operations, adequate provision should be made for audit by the State road authorities.

2.5 Saf-T-Cam operations in NSW

From a recent inquiry into the Roads and Traffic Authority of NSW, Saf-T-Cam units are currently based at 20 locations (4 Hume, 4 Pacific, 1 Casino, 2 New England Highway, 5 Newell, 2 Sturt, 2 Barrier) with a further one to follow at Branxton.

Page 34 of the Annual Report of the RTA notes that Saf-T-Cam allows the RTA to identify vehicles that are travelling at excessive average speeds and drivers exceeding prescribed drivers hours with the RTA cancelling the right to operate certain vehicles on NSW roads. It would be interesting to know what is the greater problem overall (and for each main corridor) : vehicles that are travelling at excessive average speeds OR drivers exceeding prescribed drivers hours, also, under what regulations and legislation can the RTA withdraw an operators right to operate specific vehicles on NSW roads.

2.6 Truck driver fatigue in New Zealand

The New Zealand House of Representatives Transport Committee 1996 report on the Inquiry into Truck Crashes discusses driver fatigue on pages 36 to 41. In summary, driver fatigue is a largely unrecognised problem. It notes a VicRoads 1995 reference indicating that driver fatigue is a factor in approximately 25 per cent of crashes, and a large American RTB study finding that 58 per cent of single vehicle long distance truck crashes were due to fatigue. (Question: how many single vehicle long distance truck crashes occur in Australia?). New Zealand examples are shown of abuse of log books, which is considered as widespread, and log books are held as inadequate to control driver fatigue. Recommendations include *"...development of appropriate strategies, rule and enforcement systems for the control of driver fatigue. This could include the use of on-board computers as a substitute for log books, providing there are prescribed standards for access and data gathering."*

3. RAILWAYS

Despite some unfortunate train crashes with tragic loss of life, when the quantity of freight and passengers are taken into account, rail generally has an enviable safety record. It is, however, a challenge for private and public rail operators, as well as Government regulators, to maintain a good safety record in the face of increasing competitive pressures.

In Australia, rail's safety record in the late 1990s has been clouded by some serious accidents, including Hines Hill (WA), Mt. Christie (SA), Mittagong (NSW) and Berefield (NSW). The Hines Hill Tragedy with the loss of two lives, as reported by Ken Date for Railway Digest (March 1997, p30-32), notes that on 14 January 1996, a West bound Sydney - Perth superfreighter collided with an east bound Westrail freight train at Hines Hill, and refers to a WA Coroner's Report. Fatigue was not mentioned in the article.

Railway Digest (April 1997, p8) reported on a collision at 5.25pm on 22 February 1997 at Mt. Christie between a West bound SCT train and an east bound NR steel train with injuries and extensive locomotive damage, and, a collision on 25 February 1997 at Mittagong between a CityRail Endeavour rail car and a FreightCorp Train.

An account by Railway Digest (June 1998, Page 7) of a collision between two coal trains travelling in the same direction at Beresfield at 6.45am on 23 October 1997 cites an

Inquiry (by BASI). The article noted "crew fatigue", and "crew rostering practices" as problems leading to the serious collision, with injuries.

The emerging use of Driver Only Operation (DOO) also raises new issues, and are the subject of an article by Frank Hussy in *Railway Digest* (June 1999, p18-23 and 40). The article (p40) notes the relevance of fatigue to DOO *"...came to light in New Zealand where, whilst also reporting fewer overall safety incidents, the number of incidents attributable to fatigue increased"*. [This could well be the case with Australia's road drivers as well.]

The article notes *"...fatigue was considered a contributing factor in the Beresfield accident...(and) the introduction of fatigue managements systems by most rail operators"*.

4. AVIATION

Some general comments are made from the Committee's 1995 report 'Plane Safe' (Incidentally - is fatigue mentioned at all in this report?). On page 19, the report notes the BTCE 1993 estimates of 320 aviation accidents, including 36 fatal accidents, at a cost of \$76 million. General Aviation (GA) and its five categories (page 40), which earned, possibly with commuter or regional airlines, a total income of \$526 million in 1992-93, would seem to be responsible (can this be quantified?) for most of the aviation accidents in 1993, and to date in recent decades in Australia.

Chapter 5 of 'Plane Safe' called "Destructive Competition" is of interest. The Committee noted (p53) that whilst *"...Competition is an important policy for improving the efficiency and hence the international competitiveness of the Australian economy"*, it put forward the hypothesis that *"in certain circumstances strong competition, particularly price competition reduces profits. This can lead to reduced expenditure on aircraft maintenance and in turn have an adverse effect on safety"*.

The report (p 56) felt the GA industry would be *"...characterised by considerable excess capacity"* with (p 58) *"In GA it is a case of too many aeroplanes chasing too little business for too little return thus putting pressure on operators to reduce maintenance expenditure, with adverse effects on safety"*.

The main concern with "Destructive Competition" within GA appears to be leading to safety being compromised from inadequate maintenance. Here, fatigue does not appear to be mentioned in this Chapter, but a reference is given to evidence on *"...pilots who will fly for nothing"*. This older evidence may be worth revisiting.

As well as references in Chapter 5 to considerable excess capacity, and pilots who will fly for nothing, this Chapter notes (p56 and 57) evidence to a Seaview Inquiry of *"pilots being pressured... to fly illegally overloaded aircraft...a large number of small businesses which operate at the margin"* and *"...behaviour of pilots who break the rules"*. All of these points are very similar to some alleged aspects of the road freight industry.

5. MARITIME

Did the Committee's earlier report "Ships of Shame" raise, at any stage, fatigue as an issue?

To what extent , if any, has reduced crew numbers on Australian crewed and overseas crewed ships, contributed to maritime accidents is unknown.

6. GENERAL

The Committee's earlier report "Ships of Shame" indicated a shameful exploitation by certain overseas shipping interests of other people for commercial purposes, with sometimes tragic consequences .

Placing of monetary inducements within Australia to drive excessively long hours, leading to fatigue with sometimes tragic consequences, is also shameful exploitation. So also is any imposition of penalties for 'late arrival' of a long distance truck. In as much as the practice still continues within the Australian road freight industry, it would be good to see it eliminated, or at least reduced. It would also be desirable to see that it does not occur within the rail industry as rail is exposed to more competitive pressures.

Whether or not tachographs, or the more modern equivalent of computerised vehicle monitors, that are capable of recording speed and hours of driving, should be required for all long distance trucks could also be examined. This will raise related issues of what is current world best practice in commercial vehicle monitoring. The inquiry may well establish a need for an increase in staffing resources of the sections of the State road authorities that are responsible for heavy vehicle safety.

The question of whether Australia has too much road freight for its own economic and social well being is also commended to the Committee. If the Australian way of life really requires people to regularly have to drive over 60 hours a week to earn a living driving long distance trucks, and run the risk of fatigue, then we have it wrong.

Please let me know if I can assist the Committee with its inquiry. I would be happy to appear before the Committee.

Yours sincerely,

**APPENDIX A FATALITIES FROM ROAD CRASHES ON MAJOR
NSW HIGHWAYS**

Involving Articulated Trucks

	HumePacific	New	Syd-N'cle	Newell	Sturt	All	Total	
1988	22	19	11	1	15	3	71	151
1989	24	38	11	2	20	4	99	143
1990	12	12	8	0	2	1	35	94
1991	9	21	7	2	6	1	46	78
1992	8	22	5	1	5	1	42	84
1993	8	12	10	1	10	1	42	69
1994	12	14	2	1	10	4	43	67
1995	3	11	6	0	6	2	28	63
1996	5	12	10	3	2	0	32	56
TOTAL	103	161	70	11	76	17	438	805

Involving All Vehicles

	HumePacific	New	Syd-N'cle	Newell	Sturt	All	Total	
1988	52	71	24	6	27	5	185	1037
1989	40	123	26	4	32	14	239	960
1990	24	46	22	2	14	4	112	797
1991	12	46	11	5	12	3	89	663
1992	21	44	16	11	15	1	108	649
1993	26	39	14	9	24	8	120	581
1994	21	44	12	7	25	8	117	647

1995	19	33	18	11	11	6	98	620
1996	12	42	19	12	4	1	90	581
TOTAL	227	488	162	67	164	50	1158	6535

Reference. Compiled from data supplied in 1997 by the NSW Roads and Traffic Authority. **Hume Highway** denotes the sections from Crossroads (Alcock Ave) to Albury. **Pacific Highway** denotes sections from Hexham Bridge to Queensland Border, and, **New England Highway** denotes sections from Maitland (Church St) to Queensland Border.