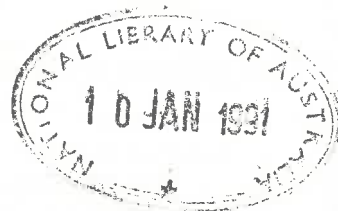




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ROADWISE

The Journal of the Australian College of Road Safety



Vol. 3. No. 3, Spring, 1990

Launch of Safe Coach Seat

On June 4, the management of Stratos Seats Pty Ltd, in the presence of the Minister for Transport, Mr. Bruce Baird and members of the NSW Roads & Traffic Authority, assembled at the RTA Crash Laboratory for the worldwide launch of an outstanding new design in bus and coach seats. Members of the Australian College of Road Safety Executive Committee and the editor of "Roadwise" were also amongst the guests.

A NSW Bus Safety Review Committee and the Federal Vehicle Safety Advisory Committee (VSAC) Working Group have been investigating safety issues in the wake of three major bus crashes in New South Wales in recent times. "Those horrendous crashes—the worst in Australia's history—have brought home to everyone the need to improve crash protection in long distance coaches", Mr. Baird said.

This is not a problem isolated to Australia. For example, there have been recent coach accidents of a serious nature in USA. One which occurred in California on May 18 this year caused injury for twenty visiting Australians. For this reason, Stratos plans to market their project in North America and South-East Asia as well as in Australia and New Zealand.

As part of the overall review of bus seat design, a \$40,000 testing programme was announced by the Minister earlier this year, as a joint effort by the RTA and the Federal Office of Road Safety.

A prototype of the Stratos Bus Safe-T-Seat has been tested at the Roads and Traffic Authority's Crash Laboratory. Mr. Baird said that "tests carried out on the new Stratos Safe-T-Seat indicate that it offers a standard of protection which will put Australia at the forefront of bus safety".

The RTA's Vehicle & Equipment Safety Section at Rosebery is world renowned as a crash engineering test facility, in which it is possible to simulate crash tests under laboratory conditions. It is the only such independent facility in Australia.

Results of this testing with the

\$300,000 test dummies, proved that levels of deceleration of 25 g can be withstood for periods in excess of 20 milliseconds with a peak deceleration exceeding 28 g (1 g = 9.8 m/sec).

This is more than two and a half times the proposed ECE80 standard for bus and coach seat strength and anchorages. Mr. Baird foreshadowed that, at a federal level, new Australian Design Rules designed to improve bus safety, would apply from 1992. It is anticipated that these new standards will incorporate criteria equivalent to ECE80.

The new Stratos seats feature a built-in lap-sash seatbelt that is suitable for adults and children. There is a quick release buckle for easy entry and exit. The seatbelt retracts into the seat eliminating the need for floor-mounted anchorage points. The difficulty of mounting seatbelts to the floor has been one of the greatest obstacles to installing seatbelts in coaches.

The seats have been designed to take advantage of the "unistrut" track style mounting system, as used by commercial airlines.

It has a unique one-piece, medium tensile, primary frame, without any weak points such as backrest recline mechanisms which can break in an accident. It has excellent lumbar support and increased lateral support in both backrest and cushion, to provide maximum comfort over long distances. Two styles of headrest are easily interchanged for day or night use.

Should an accident occur, each passenger is isolated and protected, minimising the number and severity of injuries.

The demonstration on June 4 was spectacular. The Stratos seat was again tested. The Safe-T-Seat breaks new ground in the design and manufacturing of coach seats and it is claimed to be the strongest and safest seat in the world.



The new Stratos Safe-T-Seat isolates and protects passengers in the event of an accident, as shown in this crash test.

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No payment is offered for articles submitted.

All articles should be clearly expressed and should be interesting to read. They should relate to matters of road safety, operation of mobile equipment or vehicles or traffic education.

The publisher requires indemnity from contributors against damages or liabilities that may result from publication of all material.

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Editorial

Australia-wide, the number of people killed in road crashes in 1990, up to the end of June was:

- (a) a 16% decrease compared with the same period in 1989;
- (b) the lowest figure on record for January to June period since 1960; and
- (c) an 18% decrease compared with the previous five year average for this period.

The statistics show a variable result from one state to another with Victoria having approximately 30% decrease and Northern Territory 28% increase, compared with the same period last year.

We should be very concerned that Australians in the Northern Territory are still not getting it right. We should also be concerned that, despite a downward trend, 1136 people have lost their lives in six months. This provides no room for complacency by road users or authorities trying to solve this traumatic problem.

Also, despite the lowest road toll in three decades, it is reported that the cost of the carnage has continued to rise. The cost includes insurance payouts, inten-

sive medical care, the loss of earnings and social welfare support.

Dr. Gordon Trinca has predicted the cost in 1990 will be \$6,000 million, compared with \$2,710 million in 1983 and \$5,690 million in 1987. He said that 'ten per cent of our total hospital resources are consumed by road accidents'. The cost escalation is due not only to inflation and the cost of advanced medical care but also to the increased chances of people surviving but nevertheless being seriously disabled.

Another concern related to this matter is the use of uniform definitions of accident types. This is essential if data from different states is to be compared and combined accurately. The Australian Road Research Board (Dr. David Andreassen) has been extracting accident cost data for use in countermeasure evaluation and safety policy formulation. The Western Australian Main Roads Department and Police Department have agreed to adopt the ARRB classification of model guidelines for accident data collection and classification.

Australian College of Road Safety Guest Lecture - 1990

The Australian College of Road Safety's first Guest Lecture was given on 21st June 1990 in the Morrow Room of the Royal Australian College of Physicians in Sydney by Barbara Sabey formerly Head of the Road Safety Division of the Transport and Road Research Laboratory in Britain and now an international road safety consultant.

As the author of over 70 papers covering a wide range of road safety issues Miss Sabey has consulted in Europe and Australasia and is at present Chairman of two of Britain's most important road safety committees — the RoSPA National Road Safety Committee and the Child Accident Prevention Trust's Professional Committee.

Miss Sabey commenced her lecture with the comment that, while everyone regards themselves as road safety experts, safety has a low status professionally. She described the four-pronged attack in Britain aimed at partial reduction (perhaps 15%) of road safety injuries. This strategy includes low-cost engineering measures where the United Kingdom leads Australia; education, training and enforcement measures; drink-driving enforcement and publicity; and seat-belt wearing where Australia is ahead of Britain. In the new application of already developed measures such as vehicle engineering to protect against injury and avoid crashes; area-wide low cost road engineering schemes; and initiatives in education and training, there was an even greater chance of success. Miss Sabey foreshadowed the development of 20 m.p.h. area-wide traffic management schemes.

In the wide ranging discussion which followed the lecture, issues raised included: the complexity of inter-country comparison of road trauma figures; difficulties associated with application of speed limits; use of helmets by cyclists; the effectiveness of pedestrian crossings; and drug intake by heavy vehicle drivers.

Miss Sabey noted the importance attached overseas to the 1988 global

road safety review, "The Global Challenge", undertaken by a group led by Gordon Trinca. She suggested that this publication reflected the prominent influence of medical practitioners in the road safety debate in America and Australia. Miss Sabey concluded by saying that the big issue for the future was to develop an understanding of people's attitudes to road safety and road safety counter-measures.

The Sydney lecture was a result of liaison with the Roads and Traffic Authority of New South Wales, which sponsored Miss Sabey's visit to NSW to participate in a Conference and training workshop on Accident Hazard Investigation.

The Australian College of Road Safety is planning for future visiting lecturer tours.

Abroad

Children and Roads: A Safer Way

The Department of Transport in the UK has launched a major road safety initiative, "Children and Roads: A Safer Way", aimed at reducing child road accidents.

"Must Do Better: A Study of Child Pedestrian Accidents and Road Crossing Behaviour in Scotland", October, 1989, reporting on research by MVA Consultancy, was the basis of the new programme. This report concluded that the general standard of children's road sense and behaviour is very poor and that children do not cross the road in the way that they are taught. Recommendations included the areas of road engineering (to slow traffic), publicity, educational programmes (aimed at children, parents and drivers).

The new campaign seeks the involvement of local authorities, police, voluntary bodies, health agencies, private sector sponsors, schools, teachers and parents.

This UK initiative will be of special significance in Scotland, where 1990 has been designated Scottish Road Safety Year.

**SAFETY SIGN SERIES**

This is No. 5 in a series of interesting safety signs.
It is located on the Pacific Highway, northern New South Wales.

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Research Update

The following are current road safety projects being carried out at the Australian Road Research Board

Analysis of road engineering data from fatal accident forms

John Catchpole, phone (03) 235 1626
Identify road design features over-represented at fatal accident sites.

Accident costs and applications

David Andreassen, phone (03) 235 1587
Produce 'per accident' costs for various groups of accident types, to be used in project planning and evaluation.

Data and Safety arrangements - road safety review

Peter Cairney, phone (03) 235 1621
Investigate safety responsibilities, funding arrangements and accident data collection of organisations in each state. Identify any necessary improvements in data systems. Identify differences between accident problems of various jurisdictions.

Traffic control devices - cost effective countermeasures

Peter Cairney, phone (03) 235 1621

Traffic control devices - delineation (I)

Steve Jenkins, phone (03) 235 1629
Determine optimum configuration of retro-reflective delineation devices for a range of curve radii and for straights. Identify visual cues used in night-time driving.

Traffic control devices delineation (II)

Jim Jarvis, phone (03) 235 1580
Unobtrusively measure night-time curve negotiation performance on short-radius rural curves treated with experimental delineation treatments.

Traffic control devices - terminal life of signs

Steve Jenkins, phone (03) 235 1629
(1) Determine minimum photometric requirements for road signs, below which they are ineffective and should be replaced.
(2) Determine photometric performance of road signs presently in the field.

Traffic control devices - safer local networks

Ray Brindle, phone (03) 235 1563
Define tolerable geometric conditions which satisfy operational, safety, planning, aesthetic and other requirements by exploring speed/geometry/sight distance relationships in the design and traffic management of urban non-arterial roads.

LATM data bases

Ray Brindle, phone (03) 235 1563
Continue to develop the ARRB Local Street Information System (ALSIS).

Truck braking

Jim Jarvis, phone (03) 235 1580
Investigate in-service braking performance of trucks and truck driver braking strategies. Identify road designs and operational situations which may require difficult or dangerous truck braking manoeuvres to be executed.

B-double stability

Yan Tso, phone (03) 235 1633
Investigate rollover and directional stability of B-doubles, with emphasis on vehicle factors affecting stability.

Swept paths

Yan Tso, phone (03) 2335 1633
Develop appropriate criteria for acceptable low-speed performance of heavy vehicles and practical means of verifying compliance.

Road Transport Industry - "Serious About Road Safety"

The Road Transport Industry Forum (GPO Box 1879, Canberra 2601, Telephone (008) 024990) is developing a total reform package for the Australian Road Transport Industry.

The proposal includes a national accreditation scheme and a code of conduct as the basis of self regulation within the industry. It aims to develop, in conjunction with the Government, realistic regulatory arrangements covering such matters as driving hours, log book and driver licensing.

Back Issues of Roadwise

Back issues of Roadwise are available for members who have joined more recently. Four issues for 1988 and 1989 are available at \$9.50 per set including postage.

Conference Proceedings

You may order copies of the following:
"The Proceedings of the 1986 National Traffic Education Conference" ISBN 0 9590668 1 0 \$(10.50)

"The Proceedings of the Second National Traffic Education Conference" ISBN 0 9590668 3 7 \$(14.50)

Send orders to:

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Special Training for Convicted Drivers

A programme being implemented by the Queensland Corrective Services Commission is expected to have a significant impact on road safety. The programme which has the support of the Royal Automobile Club of Queensland, is designed to reduce penalties already imposed, for those who can be taught to be responsible.

This is the response of the Commission to the rapid escalation in the number of repeat drink driving offences being heard by magistrates.

The pilot programme has been operating on the Gold Coast since October 1987 and is now being extended to major regional centres throughout the state.

To be eligible for the programme, offenders have to be convicted on a third major drink-driving charge within a five year period or a second offence of driving with a blood alcohol content of 0.05 gms/100 mls or above while simultaneously being convicted of another offence (such as driving while disqualified).

(Conviction on a third major drink-driving charge within a five year period carries a mandatory prison sentence.)

The rehabilitation programme consists of seven modules, each conducted

by a different agency: Ambulance (first aid course), Transport Department (defensive driving course), RASQ (road safety course), Police (traffic instruction course), Insurance Council of Australia and a solicitor (legal issues), psychological counselling, alcohol counselling.

The Chairman of the Commission's Board, Sir Edward Williams, said that the objectives of the programme were:

- to make an offender aware of the need for road safety and the danger of driving a motor vehicle while affected by alcohol;
- to enable an offender to prove to the court, through a Community Correctional Officer, that his/her conduct and character were now such that the privilege of holding a driver's licence was valued;

- to have the offender's driving disqualification lifted after a two-year period;

- to reduce the length of prison sentences in relation to those offenders convicted on a third occasion for a major drink-driving offence (i.e., blood alcohol content 0.125 gms/100 mls and above).

ACRS links overseas

The Australian College has applied for affiliate membership of the World Safety Organisation. Also, Mr Jim Johnstone, a member of the College's executive committee has been appointed to the Board of Governors of the Safety and Health Hall of Fame International.

ACRS Varies Meeting Venues

Since the inaugural meeting of the Australian College of Road Safety, in conjunction with the second biennial National Traffic Education Conference held in Armidale, NSW in February, 1988, most executive committee meetings have been centralised in Sydney. The annual general meeting in 1989 was held at White City Tennis Club and the annual general meeting in 1990 was held in Armidale, NSW, in conjunction with the third biennial National Traffic Education Conference. The September meeting of the executive was held in Brisbane. It is planned that the November meeting will again be held in Brisbane. Melbourne has been nominated as the location for the next annual general meeting to be held in February, 1991.

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Drive For Your Life

One of the recognised solutions to reduce the number of fatal and serious injuries from accidents is better driver training. Shell Australia and the Driver Education Centre of Australia formed a non-profit joint venture to produce a video-based driver education programme aimed at 15-17 year old youths. The programme is entitled "Drive For Your Life" and includes seven videos plus leader's notes and suggested student activities.

In Australia there is an over repre-

sentation of young people in traffic accidents: 35% of all drivers killed in road mishaps are under 25 years of age.

This programme provides a comprehensive training programme that the project team hopes will be provided to every secondary school in Australia by community groups.

Information about "Drive For Your Life" can be obtained from local Shell service stations or from D.E.C.A., PO Box 1742, Shepparton, Victoria, 3630. Telephone (058) 21 1099.

New Members

The following new members have joined the Australian College of Road Safety.

Corporate

Australian Medical Association
Geoff McDonald & Associates
Queensland Department of Transport (RTS)
Royal Australasian College of Surgeons (Road Trauma Committee)
Rural Doctors' Association

Personal

Mr Bernard Mack (Office of Road Safety, Tasmania)
Mr John Dann (Queensland Ambulance)
Mrs Shirley Walker (Kenmore, Queensland)
Ms Vallorie Hodges-Palmer (Road Safety Co-ordinator, Brisbane Sth.)
Mr Peter Dare (Chief Driver Trainer, Mt Cotton DTC Qld)
Mr Leslie Jackson (Chief R.S. Officer SA Office of Road Safety)
Mr Paul Kam (Australian Army, Victoria Barracks, Brisbane, Qld)
Mr Andrew Nisbett (Karalee, Qld)
Mr Peter Wilkes (Road Safety Officer, Qld Dept. of Transport)
Mr Michael King (Road Safety Officer, Qld Dept. of Transport)
Mr Alan Sault (Investigations Officer, Qld Dept. of Transport)
Mr Frank Loeken (Ass. R.S. Co-Ordinator, Qld Dept. of Transport)
Mr Ian Gibson (Australian Army, Puckapunyal, Victoria)
Mr Charles Wells (Civil Engineer, Southport, Queensland)
Mr James Mulcahy (Driving Instructor, Kenmore, Queensland)
Mr Alan Graham (Principal Manager, Office of Director General for Transport)
Mr Raymond O'Dowd (Senior Executive Officer (Traffic), Qld Dept. of Transport)
Mr Bruce Hill-Webber (Driving School Proprietor, Zillmere, Qld)
Mr Alan Brown (Chief Driving Examiner, Qld Dept. of Transport)
Prof Ian Webster (Director Drug & Alcohol Services, Liverpool Hospital, NSW)
Mr H D Miller (Risk Control Consultant, Aspley, Qld)
Mr George Goddard (R.S. Resource Development Officer, Qld Dept. of Transport)
Mr Bruce Jackson (Regional Manager, Qld Dept. of Transport)
Dr Ian Johnston (Executive Director, Aust. Road Research Board)
Prof R Huckstep (Prince of Wales Hospital, NSW)
Dr Peter Tamblyn (Specialist Centre, Ashford, SA)
Mr Paul Circosta (Manager, Resource Development Unit, Qld Dept. of Transport)
Mr Neil Hamilton-Smith (Qld Dept. of Transport)
Sgt Ian Bunting (Australian Army, Wagga Wagga NSW)
Mr Kerry Fielding (Occupational Health & Safety Co-Ord., Qld Dept. of Transport)
Mr Bryan Kilgallin (ACT Dept. of Urban Services, R.S. Unit)
Dr Michael Henderson (Balgowlah, NSW)
Mr Rodney Mills (Consultant, Beenleigh, Qld)
Mr Douglas Wilson (Medico-Legal Consultant, Caloundra, Qld)
Mr A. Ridley (Nowra Driving School, NSW)
Dr Ric Bouvier (Kew, Victoria)

MOTOR VEHICLE STANDARDS

National design standards for new motor vehicles are to be reviewed, the Federal Land Transport Minister Bob Brown told the 15th Australian Road Research Board conference in Darwin held in August.

"A major report on vehicle occupant protection carried out by the Monash University Road Accident Centre is about to be handed to the Federal Government", he said.

"The report is the most comprehensive of its type ever carried out in Australia."

"Although current design standards are high, Australian motorists clearly have the right to the best and newest safety developments in the world."

Mr. Brown said that a range of other road safety measures must also be considered to achieve a continuing fall in the road toll. He said one of the most important was working to make road laws uniform across the nation.

"The Australian people expect a co-ordinated effort to promote road safety", he said.

An allocation of \$18 million has been made by the Federal Government to road safety research and public education over the next three years.

ARTAC Considers Speeding Trucks

The Australian Road Transport Advisory Committee, representing all major sectors of the road transport industry and government, has recommended tougher action against speeding trucks.

Their recommendation to state transport ministers is to implement on-the-spot defect notices to be issued on heavy vehicles caught travelling at 115 kilometres an hour, or more.



Publications



NATIONAL ROAD SAFETY RESOURCE CENTRE

(an initiative of the Australian College of Road Safety in co-operation with the University of New England)

The Librarian, National Road Safety Resource Centre,
C.B.Newling LRC, University of New England,
ARMIDALE NSW 2351
Telephone (067) 73 4261 Fax (067) 72 9702

"Road Traffic Accidents in New South Wales 1989", Road Safety Bureau, RTA, June, 1990.

"Road Safety", NSW Roads and Traffic Authority Road Safety Bulletin, No. 3, Winter Edition, 1990.

"Novice Driving — The Students' View", STAYSAFE 17, Parliament of New South Wales Joint Standing Committee on Road Safety, ISBN 0 7240 8753 2, May, 1990.

"Roadlit", a weekly current awareness bulletin listing items recently received in the library of the Australian Road Research Board, 500 Burwood Highway, Vermont South, Victoria, 3133, Telephone (03) 881 1561.

"Community Attitudes to Road Safety: community attitudes survey wave IV", Reark Research Pty Ltd (available from FORS, Report CR85, August, 1989) Note: previous publications in this series, wave I October, 1986, wave II June 1987, wave III May 1988.

"Skills Acquisition by Young Drivers: Perceiving, Interpreting and Responding to the Driving Environment", Milech D., Glencross D., and Hartley, L., ISBN 0 642 51339 2, October, 1989 (FORS Report MR4).

"The Cost of Road Crashes", AGPS 89/21 643 CAT. No. 89 1778 2.

"Pacific Highway — A New Direction", NSW Roads and Traffic Authority, December, 1989.

"Drinking or Driving: It's Your Decision", FORS B89/20429 Cat. No. 89 0434 3.



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