BICYCLE NETWORK®

AUSTRALIAN DESIGN RULE DEVELOPMENT PROGRAM

RESPONSE TO PROPOSED ADR 99/00

(LANE DEPARTURE WARNING SYSTEMS)

MAY 2022

Introduction

The Australian Design Rules Development Program

The *Road Vehicle Standards Act (2018*) stipulates that all new road vehicles must satisfy national vehicle standards (Australian Design Rules – ADR) before they enter the Australian market. These ADRs, developed in conjunction with international vehicle regulations, set out the mandatory requirements for safety, environmental performance and theft protection. Once new vehicles fulfill these federal requirements, responsibility is handed down to states and territories to ensure continued compliance.

The Australian Design Rules Development Program is managed by the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC), and aims to amend and develop existing ADRs and introduce new ADRs where necessary.

Lane Departure Warning Systems (LDWS)

Lane departure warning systems (LDWS) are a safety technology that warns drivers of an unintentional movement or drift from a road lane, which may arise due to, for example, fatigue or driver error. The alert may be an audible signal, a vibrating steering wheel or seat, or in some cases the vehicle may even take control and correct itself.

There exists a wealth of literature demonstrating that LDWS technology is an effective intervention for preventing crashes related to driver fatigue and distraction[1,2]. In 2013, the UNECE World Forum for Harmonization of Vehicle Regulations (WP 29) first endorsed *UN Regulation No. 130 (R130) – Uniform provisions concerning the approval of motor vehicles with regard to the Lane Departure Warning System (LDWS)*, which has since become the international standard for LDWS in omnibuses, and goods vehicles over 3.5 tonnes GVM. Australia is yet to fully harmonise with this standard.

Our position

Bicycle Network supports **Option 2** in the Regulation Impact Statement prepared by the DITRDC. This option proposes mandatory standards under the *Road Vehicle Standards Act (2018)* for all new heavy vehicles supplied to the Australian market to be fitted with LDWS, adopting the technical requirements of UN Regulation No. 130. We believe that ADR 99/00 (Lane Departure Warning) is suitable for adoption under the Australian Design Rules.

We take our position for the following reasons:

- The adoption of AD 99/00 will be a better outcome for people riding bikes on roads. Findings from Bicycle Network's 2020 rider fatality report revealed that **1 in 5** rider fatalities involve a heavy vehicle[3]. This statistic has not changed in over 20 years. Data from the Transport Accident Commission in Victoria suggests that people riding bikes are **34 times more likely** to be seriously injured than vehicle occupants, and 4.5 times more likely to be killed in a crash. LDWS are a critical intervention in alerting drivers of dangerous traffic behaviours, which in turn will decrease bike rider fatalities.

- In proposing this ADR, the DITRDC will harmonise with the international standard for LDWS in heavy vehicles, UN Regulation No. 130 (R130). We agree with and support this movement. It is in the best interest of the Australian government to continue its harmonisation with international technological and legislative developments. An international standard would also further simplify system design and enhance quality.

- Road trauma costs Australia's economy **$30 billion per annum** and the proposed Australian Design Rule 99/00 will help to reduce this economic burden[4]. A cost benefit analysis in DITDRC's Regulation Impact Statement suggests that the regulation of LDWS in new vehicles over a 37 year period will yield $17.3 million in societal benefit.

Considerations for the future

Mandatory fitting of blind spot information systems (BSIS)

To further protect people riding bikes on roads, Bicycle Network will continue to advocate for the compulsory fitting of blind spot information systems (BSIS) for all new light vehicles.

Blind Spot Information Systems (BSIS) are a technology that alerts the driver of a vehicle of possible collisions with bikes (and motorbikes) travelling adjacent to the vehicle. The technology plays an important role for vulnerable road user safety[5], as many crashes involving serious injury, and often death, occur when a vehicle making a turning movement collides with a rider travelling parallel to the vehicle[6,7].

Progress has been made to amend ADRs to allow the fitting of BSIS technology in heavy vehicles. In a recent Discussion Paper, it is anticipated that a new ADR for blind spot information systems will be mandated for new heavy goods vehicles over 8 tonnes GVM and exceeding the regulated vehicle width limit[8].

We believe that drivers are equally impaired when recognising riders in blind spots, regardless of vehicle type and dimensions. An ADR that mandates the fitting of BSIS will help reduce the likelihood of crashes the occur due to blind spots, and we look forward to future developments.

Exit warning technology

One of the most serious crash risks for people riding bikes is colliding with a vehicle door as a person exits their vehicle, commonly referred to as 'dooring'. As well as causing serious injuries[9], these types of crashes discourage people from using bikes, or using bike lanes that run parallel to parked vehicles[10].

Technology can play a critical role. Manufacturers such as Mercedes and Ford have taken the lead by fitting 'exit warning' technology into new models. The technology is able to alert drivers of an approaching bikes before they open their vehicle door.

This is an exciting advance in vehicle technology that could play a pivotal role in protecting vulnerable road users. The growth and evaluation of this technology may form the basis of future amendments to the Australian Design Rules development program.

Bicycle Network recommends

Implement Australian Design Rule 99/00 to mandate the fitment of lane departure warning systems (LDWS) to new heavy vehicles under the Road Vehicle Standards Act 2018

Who we are

With nearly 50,000 members, Bicycle Network is one of the top five member-based bike riding organisations in the world. We are committed to improving the health and wellbeing of all Australians by making it easier for people to ride a bike.

Operating nationally, we have a measurable, successful and large-scale impact in community participation and the promotion of healthy lifestyles through bike riding.

We achieve this through:

- improving the bike riding environment by working with government at all levels to provide better infrastructure, legislation, data, policies and regulations;
- delivering successful, large-scale behaviour change programs such as Ride2School and Ride2Work;
- providing services and insurance that support bike riders through nationwide membership;
- running mass participation bike riding events such as the Great Vic Bike Ride; and
- being a key national spokesperson on issues related to cycling and physical activity.

Bicycle Network is committed to improving the safety of heavy vehicles in Australia. Our 'Swapping Seats' campaign, commissioned by Rail Projects Victoria and supported by the Metro Tunnel Project, offers free public activations for people riding bikes to increase their safety knowledge about riding with heavy vehicles.

References

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