Proposal for amendments to UN Regulation No. 130 – Lane Departure Warning System (LDWS)

This document proposes an amendment to the original text of United Nations Regulation No. 130 – Lane Departure Warning Systems (LDWS). This proposal intends to facilitate effective functioning of the LDWS fitted to Australian supplied vehicles of category M2, M3, N2 and N3 primarily used under highway conditions.

I. Proposal

Insert new Section 12., to read:

"12. Transitional provisions

- 12.1. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 01 series of amendments.
- 12.2. As from [1 September 202X], Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the preceding series of amendments, first issued on or after [1 September 202X].
- 12.3. Until [1 September 202Y], Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments, first issued before [1 September 202X].
- 12.4. As from [1 September 202Y], Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation."

Annex 3., amend to read:

"Annex 3

Visible lane marking identification

- 1. For the purpose of the approval test referred to in paragraphs 6.2.3. and 6.5. of this Regulation, the test lane width shall be greater than 3.5 m.
- 2. The visible lane markings identified in Table 1 below are assumed to be white, unless otherwise indicated in this annex.
- 3. Table of identified visible lane markings to be used for approval test in accordance with paragraphs 6.2.3. and 6.5. of this Regulation.

Table 1

Table 1	Pattern				Width	
Left edge lane marking	Left edge Centre Right edge lane marking line lane marking		Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width	•		Definition of lane width for the purpose of this Regulation			
2.5 m_ 10 m_	→ □		CANADA	30 cm	20 cm	30 cm
Centrelines yellow, edge	right edge li	ines white left	CANADA Traffic Flowing in Opposite Direction	20 cm	15-20 cm	20 cm
3 m 6 m	right edge li	ines white left	CANADA Traffic flowing in same direction	20 cm	15-20 cm	20 cm

	Pattern			Width		
Left edge lane marking	Centre Right edge line lane marking		Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
Centrelines yellow, edge	right edge li line yellow	nes white left	CANADA Traffic flowing in opposite directions with lane changing prohibited	20 cm	10-15 cm 10-15 cm 10-15 cm	20 cm
Centrelines yellow, ri	ght edge line	<u>m</u>	CANADA Traffic flowing in opposite directions with lane changing allowed only from one lane	20 cm	10-15 cm 10-15 cm 10-15 cm	20 cm
3m Cen	3m	te	CANADA Continuity lines in merging and diverging areas		10 – 15 cm	ı

	Pattern				Width	
Left edge lane marking	Centre Right edge line lane marking		Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
White Lines		— 0.5 m — 0.5m	CANADA Guiding Lines		10-15 c	m
5 m_			DENMARK	30 cm	15 cm	30 cm
3 m_ 9 m_			FINLAND	20 cm	10 cm	20 cm

	Pattern				Width	
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane			Definition of lane width for the purpose of this Regulation			
3 m _ 10 m_		9 m	FRANCE Motorway ¹	22.5 cm	15 cm	22.5 cm
3 m _ 10 m_	→	3 m	FRANCE Highways (4 lanes or 2x2 lanes)	22.5 cm and 37.5 cm	15 cm	22.5 cm
3 m		3 m 3.5 m	FRANCE (other roads)	10 or 12 cm		15 or 18 cm

	Pattern			Width		
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
4 m	-		GERMANY Secondary	12 cm	12 cm	12 or 25 cm
6 m	+		GERMANY Motorway	15 cm	15 cm	30 cm
3 m 9 m	—		GREECE	12 cm	12 cm	12 cm

	Pattern			Width		
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
3 m —	→ □		ITALY Secondary and Local	12 or 15 cm	10 or 12 cm	12 or 15 cm
4.5 m _ 7.5 m -	→ □		ITALY Motorway	25 cm	15 cm	25 cm
3 m —	→ □		ITALY Main	25 cm	15 cm	25 cm

	Pattern				Width	
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lan widt		→	Definition of lane width for the purpose of this Regulation			
4 m _	→		IRELAND	15 cm	10 cm	15 cm
12	→□		JAPAN	10 cm	10 cm	10 cm
3 <u>m</u> 9 <u>m</u>	→ ∐		THE NETHERLANDS	15 cm	10 cm	15 cm

	Pattern				Width	
Left edge lane marking	Centre Right edge line lane marking		Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width	•		Definition of lane width for the purpose of this Regulation			
3 <u>m</u> 9 <u>m</u>	→ □		NORWAY	20 cm	15 cm	20 cm
4 <u>m</u> 10 <u>n</u>	→ □		PORTUGAL	20 cm	15 cm	20 cm
a* _ b* _	→ □ ·		RUSSIAN FEDERATION More than one line in each direction (Basic variant)	10-20 cm	10-15 cm	10-20 cm

	Pattern			Width		
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
c* - d* -	→		RUSSIAN FEDERATION More than one line in each direction (Variant 1 with a lane for reversing traffic)	10-20 cm	10-20 cm	10-20 cm
a* - b* - d*			RUSSIAN FEDERATION More than one line in each direction (Variant 2 with a lane for reversing traffic)	10-20 cm	10-15 cm	10-20 cm
	e* f *	→ [] → []	RUSSIAN FEDERATION One line in each direction (Variant 1)	10-15 cm		10 cm

	Pattern			Width		
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width			Definition of lane width for the purpose of this Regulation			
	f		RUSSIAN FEDERATION One line in each direction (Variant 2)	10-15 cm		10 cm
5 m_ 12 m_		20 m	SPAIN	20 cm	10 cm	20 cm
3 <u>m</u> 9 <u>m</u>	→ □		SWEDEN	20 cm	10 cm	20 cm

		Pattern				Width		
Left ed lane ma	dge erking	Centre line			Country	Left edge lane marking	Centre line	Right edge lane marking
	Lane width		→		Definition of lane width for the purpose of this Regulation			
	6 <u>m</u> 12 <u>m</u>				SWITZERLAND	20 cm	15 cm	20 cm
	2 m	—			UNITED KINGDOM Motorway ¹	20 cm	15 cm	20 cm
	2 <u>m</u> 7 <u>m</u>	+			UNITED KINGDOM Dual Carriageway	10 or 15 or 20 cm	15 cm	10 or 15 or 20 cm

Pattern		Width		
Left edge Centre Right edge lane marking line lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane width	Definition of lane width for the purpose of this Regulation			
3 m 6 m	UNITED KINGDOM Single Carriageway (speed limit >40 mph)	10 or 15 or 20 cm	10 or 15 cm	10 or 15 or 20 cm
3 m → □ 9 m → □ Undivided road with one lane each way	AUSTRALIA Two-lane, two- way road	15 or 20 cm	10 cm	15 or 20 cm
9 m — 3 m — Central dividing line on an undivided road with more than one lane each way	AUSTRALIA Multi-lane undivided road	15 or 20 cm	10 cm	15 or 20 cm

Pattern				Width		
Left edge lane marking	Centre line	Right edge lane marking	Country	Left edge lane marking	Centre line	Right edge lane marking
Lane			Definition of lane width for the purpose of this Regulation			
3 m 9 m	•		AUSTRALIA Two-lane, two- way road with lane changing allowed from one direction only	15 or 20 cm	10 cm 10 cm	15 or 20 cm
			AUSTRALIA Two-lane, two- way road with lane changing not allowed	15 or 20 cm	10 cm 10 cm 10 cm	15 or 20 cm
			AUSTRALIA Single barrier line	15 or 20 cm	10 cm	15 or 20 cm

¹ Excepted certain zones (e.g.: slip road, lane for slow vehicles ...)

For the traffic speed limit up to 60 km/h:

^{*} Note:

a = 1...3 m; b = 3...9 m; a:b = 1:3;

c = 3...6 m; d = 1...2 m; c:d = 3:1;

e = 1 m; f = 2 m; e:f = 1:2

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For the traffic speed limit above 60 km/h: a = 3...4 m; b = 9...12 m; a:b = 1:3; c = 6...9 m; d = 2...3 m; c:d = 3:1; e = 2 m; f = 4 m; e:f = 1:2
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II. Justification

1. The expert from Australia proposes to include amendments to Annex 3 of UN Regulation No. 130 to account for Australian-specific lane marking identification ensuring

- 2. Approximately 10 per cent of Australian vehicle safety reports generated from January to December 2022 identified that when lane markings were present on roads, the lane departure warning system or lane keep assist system fitted to the vehicles:
 - Did not warn the driver;
 - Did not intervene if it had the capability to do so; or

vehicles will be designed for operation in the Australian market.

- Intervened (conducted active steering) when there was no apparent safety or operational risk.
- 3. The Australian Government has collected evidence that the frequency of these reports generated has increased over the past three years. This is attributed to the increase in such features being fitted to new vehicles entering the Australian market.
- 4. The Lane Departure Warning System should be able to:
 - Detect edge line or outline markings of 15 or 20 cm thickness;
 - Detect variations in longitudinal gaps between lane markings ranging from a minimum of 3 m to a maximum of 9 m; and
 - Detect unique Australian barrier lines separated by a 10 cm lateral gap between the 10 cm thick dividing lines.
- 5. The Australian Government has consulted nationally on UN Regulation No. 130 in early 2022 and is seeking to propose a mandate on November 2025 for new types (new models) and November 2027 for all types (all vehicles) for motor vehicles of categories M_2 , M_3 , N_2 and N_3 . This is subject to the relevant Minister's signature on the national road vehicle standard (also known as an Australian Design Rule).
- 6. There are vacant rows located between the lane marking information for Greece and Italy, and Italy and Ireland. If there are no requirements for these vacant rows, they should be removed.