

Informal document No 3
WP.1 Road Safety 50th Session

Considerations from the Motorcycle Rider regarding Compulsory Daytime Running Lamps for All Vehicles and the Revision of the Consolidated Resolutions on Road Traffic RE.1

Transmitted by the Federation of European Motorcyclists' Associations (FEMA) representing the American Motorcyclists' Association, the Federation Internationale de Motocyclisme and the Motorcycle Riders' Foundation of the United States

1. Introduction

Throughout the review of the Consolidated Resolutions on Road Traffic RE.1, the representative organisations of the motorcycle riders have sought to play a constructive role and ensure that the “best practice” nature of RE.1 will be just that and reflect the needs and particular circumstances of users of powered-two wheel vehicles. We have generally been encouraged by the understanding shown by the other interests represented in WP.1. On one issue however, that of compulsory daytime running lamps/lights (DRL) for all vehicles, we are very concerned that the position being advocated in document ECE/TRANS/WP.1/2005/17/Rev.3 is far from being a “best practice” and, if adopted, will be to the detriment of motorcyclists and other groups of vulnerable road users.

We wish to state again that in principle we are not opposed to daytime running lamps. We believe that the effectiveness or otherwise of DRL for all vehicles is significantly influenced by the geographical latitude of the country in which the measure is applied. This is a view shared by a number of researchers, for example the Transport Research Laboratories (TRL) of the United Kingdom: *Effectiveness of DRL, Department for Transport (DfT) database, 2003*.

Recognising that a very high proportion of motorcycle accidents, something over 35% of all accidents, involve a car where the driver has not seen the motorcycle, we are generally supportive of the practice where motorcycles travel with their lights on and very concerned that by requiring all vehicles to have their lights on in daytime the conspicuity of the motorcycle will be diminished.

We firmly believe that the position within the Vienna Convention is correct and that it should be maintained. That is that all countries who are signatory to the Convention are required to make it compulsory for motorcycles to have the lights on in daytime. On the question of DRL for all vehicles the Convention allows for it to be introduced should the authorities in a country decide that it would be beneficial.

We recognise that the 50th Session of WP.1 will probably be the last opportunity to convince the participants of WP.1 that the case for compulsory DRL for all vehicles has not been made and consequently, a positive statement of its benefits should not be included within a revised RE.1.

This Informal Document therefore will not concentrate on the merits or otherwise of the research that has been undertaken on the subject. It will look for evidence of the benefit of DRL for all vehicles, in the countries where it has been introduced and by comparing those countries with countries that have not introduced the requirement. The evaluation of DRL for all vehicles within the European Union will also be addressed in the particular context of the appropriateness of conclusions being reached by WP.1 at this point in time.

2. The research

As previously stated it is not our intention to review once again the research which favours DRL for all vehicles and weigh against it the research which questions the benefits. We would however wish to make two points.

Firstly the conclusions reach by *Koornstra et al, SWOV 1997*, were not based on new research but on a review of existing research. In a number of instances Koornstra changed the basis for analysing data, thereby reaching conclusions different from those reached in the original paper. As can be seen in the earlier versions of ECE/TRANS/WP.1/2005/17 Koornstra's findings and in particular the incredible claim made in 1997 that reductions in accidents of up to 22% could come from compulsory DRL for all vehicles, are still being used to justify its compulsory introduction. As we have stated in previous meetings of WP.1 Koornstra's conclusions have been widely questioned, as exemplified by the conclusions of the Transport Research Laboratories (TRL) critical review of the SWOV report for the United Kingdom's Department for Transport: *Effectiveness of DRL, DfT Database 2003*. They stated that "it is very difficult to form a balanced judgement on the reliability of the claims made by SWOV" and went on to say that "the report was poorly presented and the claims made for the potential accident savings appear exaggerated".

Secondly the research undertaken on behalf of the European Commission, *Human Factors, Daytime Running Lights, TNO 2003*, must also be treated with reservations. Following the withdrawal of the DRL provisions within the Voluntary Agreement between the European car manufacturers and the Directorate-General for Enterprise of the European Commission, in July 2001, FEMA was assured by the Directorate-General for Energy and Transport that as the appropriate road users' organisation we would be fully involved in the research that they would be undertaking. Unfortunately this was not to be the case and we were only shown a copy of the Final Report just before its publication, when we were also told that it would be too late to incorporate our comments in the Final Report.

Our main concern was the positive findings of the report appeared to be justified by a series of very questionable experiments, where persons were shown pictures on a television monitor of traffic situations, having vehicles with and without Daytime Running Lights, and asked to identify a motorcycle. It is our considered view that environment in which the experiments took place and the pre knowledge of the participants that they were looking for motorcycles, invalidates the conclusions reached.

3. The experience

We have had to acknowledge that trying to reach clear conclusions on the benefits or otherwise of DRL for all vehicles, based on research findings, has proved to be a rather sterile exercise. We have therefore looked to see if there is supporting evidence for its benefits, where it has been introduced as a compulsory requirement.

We had anticipated that it would be possible to analyse the accident statistics on the basis of the types of vehicles involved in multi-vehicle accidents. Unfortunately such data does not appear to be readily available. We were however able to obtain data on the number of fatalities by road user category arising from collisions with cars and make a comparison between two countries with compulsory DRL for all vehicles and two that had not introduced the measure.

We then considered the available data for multi-vehicle accidents without the categories of vehicles being identified. We looked at this from two perspectives. Firstly to see whether there was any identifiable benefit when comparing countries with compulsory DRL for all vehicles with countries that had not introduced the measure and; secondly, looking for an identifiable change in the incidence and trend of the accident statistics in countries which had introduced compulsory DRL for all vehicles, to see if any changes could reasonably be attributed to DRL.

Figure one show the situation in four countries of fatalities, by road user category, arising from collision with cars. It can be seen that a greater proportion of motorcyclists are killed in collisions with cars in Norway and Sweden, where DRL for all vehicles is compulsory, than in Ireland where it is not, while there is a very similar proportion of killed in Sweden compared to the Great Britain, where it is not. It should be noted that these figures do not recognise that the exposure of motorcyclists is lower in Norway and Sweden due to their significantly shorter riding season.

Figure two shows that when the fatality rates weighted against the vehicle park are compared in eight European countries over the period 1990 to 2004, no real distinction can be seen between the three DRL for all vehicle countries (Finland, Norway, Sweden) and the four countries where DRL was only compulsory for motorcycles (Austria, Belgium, Ireland, Netherlands) and Great Britain, where DRL is not compulsory for any category of vehicle but it has been estimated that over 90% of motorcyclists do ride with their lights on in daytime. Whilst it is recognised that Austria introduced compulsory DRL for all vehicles in 2006 in the context of the data period being considered it is included as a non DRL for all vehicles country.

Figure one

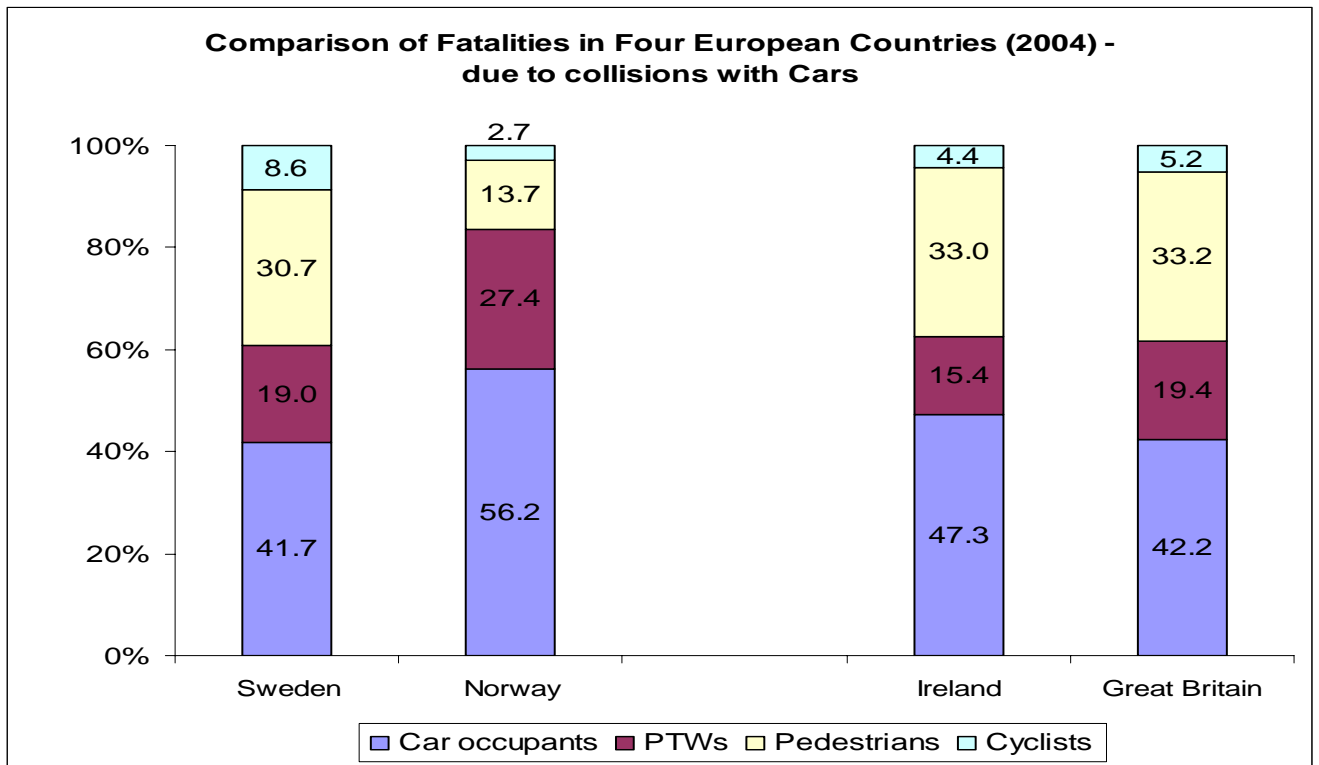
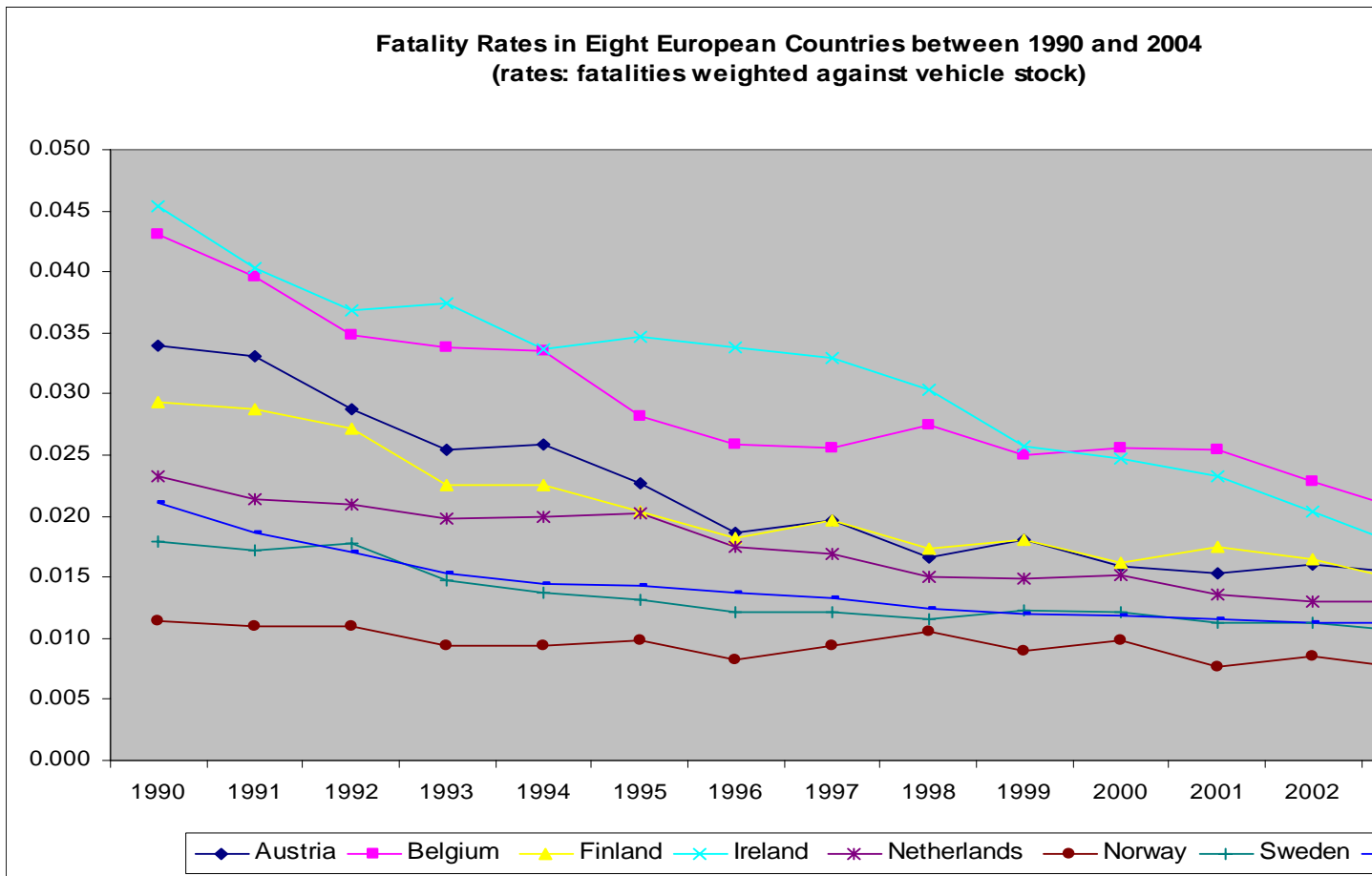


Figure two



It should be noted from Figure two that whilst all eight countries have shown significant reductions in their fatality rates and the spread has dramatically reduced from 0.011%-0.046% in 1990 to 0.008%-0.020% in 2004, the greatest improvement in the fatality rates can be seen in Austria, Belgium and Ireland, all countries that did not resort to compulsory DRL for all vehicles during the period.

Table one shows the reduction in fatal accidents expressed as a percentage over the period 1990 to 2005. There is 50.7% reduction in Austria, 45.5% reduction in the Netherlands and a 44.9% reduction in Belgium. If the year by year percentage change, as shown in Table two is examined it is interesting that the benefits of compulsory DRL for all vehicles on all roads are not readily apparent.

It is unfortunate that the three countries with compulsory DRL for all vehicles introduced the measure before the period for which we have been able to obtain comparable statistics, 1977 for Sweden, 1983 for Finland and 1986 for Norway. Finland, however, introduced the measure in stages with the final stage applying to all roads in 1997.

Whilst it could be argued that Sweden and Norway's position as the countries with the lowest levels of fatalities over the period and this could be due to their earlier introduction of compulsory DRL for all vehicles, it does not explain the similar situation in the Great Britain.

Table one

	Austria	Belgium	Finland	G.B.	Ireland	NL	Norway	Sweden
1990	1558	1976	649	5217	478	1376	332	772
2005	768	1089	379	3201	400	750	224	440
	-50.7	-44.9	-41.6	-	-16.3	-45.5	-32.5	-43.0

Table two

	Austria	Belgium	Finland	G.B.	Ireland	NL	Norway	Sweden
1990/1991	-0.4	-5.2	-2.6	12.4	-6.9	-6.9	-2.7	-3.5
1991/1992	-9.5	-10.7	-4.9	-7.4	-6.7	0.3	0.6	1.9
1992/1993	-8.6	-0.7	-19.5	-9.8	3.9	-2.6	-13.5	-16.7
1993/1994	4.3	1.9	-0.8	-4.3	-6.3	3.7	0.7	-6.8
1994/1995	-9.6	-14.4	-8.1	-0.8	8.2	2.8	7.8	-2.9
1995/1996	-15.1	-6.4	-8.4	-0.6	3.7	11.5	-16.4	-6.1
1996/1997	7.6	0.6	8.4	0.0	4.2	-1.4	18.8	0.7
1997/1998	-12.9	10.0	-8.7	-4.9	-3.0	-8.3	16.2	-1.8
1998/1999	12.0	-6.9	7.8	0.1	-9.8	2.3	-13.6	9.2
1999/2000	-9.5	5.2	-8.1	-0.4	0.5	7.0	12.2	1.9
2000/2001	-1.8	1.1	9.3	1.2	-1.0	-7.1	-19.4	-6.3
2001/2002	-0.2	-9.0	-4.2	-0.6	-8.5	-1.6	12.7	1.1
2002/2003	-2.6	-10.2	-8.7	2.2	-10.9	2.1	-9.7	-5.5
2003/2004	-5.7	-4.3	-1.1	-8.2	11.6	19.0	-8.2	-9.1
2004/2005	-12.5	-6.4	1.1	-0.6	6.7	-6.7	-14.7	-8.5

(NB: Increases in fatalities are identified by the colour orange)

Recognising that massive benefits have been and are being claimed for compulsory DRL for all vehicles, up to 22% by Koonstra and between 1,200 to 2,000 fatalities by TNO and the European Commission, one would expect to find some discernable statistical evidence showing the benefit. That is unless the lives of car drivers that are being saved are being offset by increasing numbers of other, more vulnerable road users being killed in accidents with cars.

This point is not made gratuitously. To our knowledge the only country that has published a vehicle category by category evaluation of the effectiveness of compulsory DRL for all vehicles is Denmark. In April 2001 in a report to the Thirty-Sixth Session of WP.1 it was acknowledged that there was a significant negative effect in accidents involving pedestrians and stated that “*No specific reason for the increase has been identified but no other explanation than the Daytime Running Lights can be pointed out*”. The report also identified that the negative effect with regards to accidents involving motorcycles, first identified in 1993, had continued.

3. Developments within the European Union

The appropriateness of compulsory DRL for all vehicles is a matter that is currently under consideration within the European Union, The Directorate-General for Transport and Energy has issued a Consultation Paper seeking the views of all interested parties on whether compulsory DRL for all vehicles should a requirement within all Member States.

Whilst it is recognised that the remit of the United Nations’ Economic Commission for Europe (UN-ECE) has a wider geographical sphere of influence than the European Union, we are of the opinion that if, as is claimed, positions reached by WP.1 are based on scientific evidence, then it would not be good practice for WP.1 to take a position of DRL for all vehicles, which effectively changes the position of the Vienna Convention, without

have first waited for and then considered the content and the outcome of the European Union's consultative exercise on the matter.

4. Conclusions and summary

As the representative organisations of road riding motorcyclists we are very concerned that the introduction of compulsory DRL for all vehicles in all countries, irrespective of its benefits or otherwise, will lead to a loss of conspicuity for motorcyclists and other vulnerable road users.

We are also concerned that it will lead to a shift in the responsibility for taking appropriate action to minimise a hazardous situation, away from the car driver onto the motorcyclist, cyclist or pedestrian. This being in large part a consequence of the car driver believing that "I have my lights on so, therefore, I must have been seen by that motorcyclist/cyclist/pedestrian".

We believe that there are sufficient doubts concerning both the quality of some of the research and the apparent absence of clear evidence demonstrating the benefits of compulsory DRL for all vehicles from countries where it has been introduced, to warrant its promotion as an issue for compulsory harmonisation.

This view, we believe, is all the more important when the environmental cost of DRL for all vehicles is recognised. At a time when we are struggling with global warming and trying to meet the commitments from the Kyoto protocol we believe that an energy expending measure such as DRL for all vehicles should only be introduced if it can be clearly demonstrated that its appreciable costs are appreciably outweighed by its benefits. We are of the opinion that, to date, no such realistic cost/benefit analysis has been made.

We further believe that it is inappropriate for WP.1 to reach conclusions on this important issue before it has the benefit of considering the content and conclusions of the consultative processes currently taking place within the European Union.

We would therefore ask WP.1 not to include a position supporting the compulsory DRL for all vehicles with this review of the Consolidated Resolutions.

Finally in the belief that a picture is worth a thousand words here are two.

