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MEASURING OF USING PASSING LIGHTS DURING A DAY

MĚŘENÍ POUŽÍVÁNÍ POTKÁVACÍCH SVĚTEL BĚHEM DNE

Abstract

The paper presents results of measuring of using passing lights during a day in Ostrava – Nová Ves. The reason for making this measuring was to analyse drivers' behaviour when the law No. 361/2000 about the traffic on ground communications was in force. This law will be replaced by the law No. 411/2005 from 1st of July 2006.

Abstrakt

Příspěvek uvádí výsledky měření používání potkávacích světel během dne v Ostravě – Nové Vsi. Důvodem provedení měření bylo vyhodnotit chování řidičů osobních a nákladních vozidel v době platnost zákona č. 361/2000 Sb. o provozu na pozemních komunikacích, který od 1. 7. 2006 bude změněn zákonem č. 411/2005 Sb.

1 Introduction

Liability for using passing lights in Czech Republic is constituted by the law No. 361/2000, about the traffic on ground communications, in section 32 „Motorcar lighting". Clause 3 of this law was the most important part for this measuring.

"In the period out of a part of calendar year, for which DST (Daylight Saving Time) is settled according to a special legal regulation, drivers of vehicles must have their passing lights switched on….."

Place of measuring:

- Ostrava – Nová Ves, street 28. října – see picture No. 1 (a sector between the river Odra and crossroads of streets 28. října – Mariánskohorská – Plzeňská)
- A four-lane road with a tram service

Monitored directions:

1) vehicles coming from Poruba (from Odra river) – see picture No. 2
2) vehicles going to Poruba (from crossroads 28. října – Plzeňská - Mariánskohorská) – see picture No. 3

Date and time of measuring

- Thursday, 22nd of September – working day (remark: that day is known as „Day without cars")
- $11^{11} – 11^{41}$ a.m.

Weather:

- sunny, almost calm, dry road, ambient air temperature about 17° C

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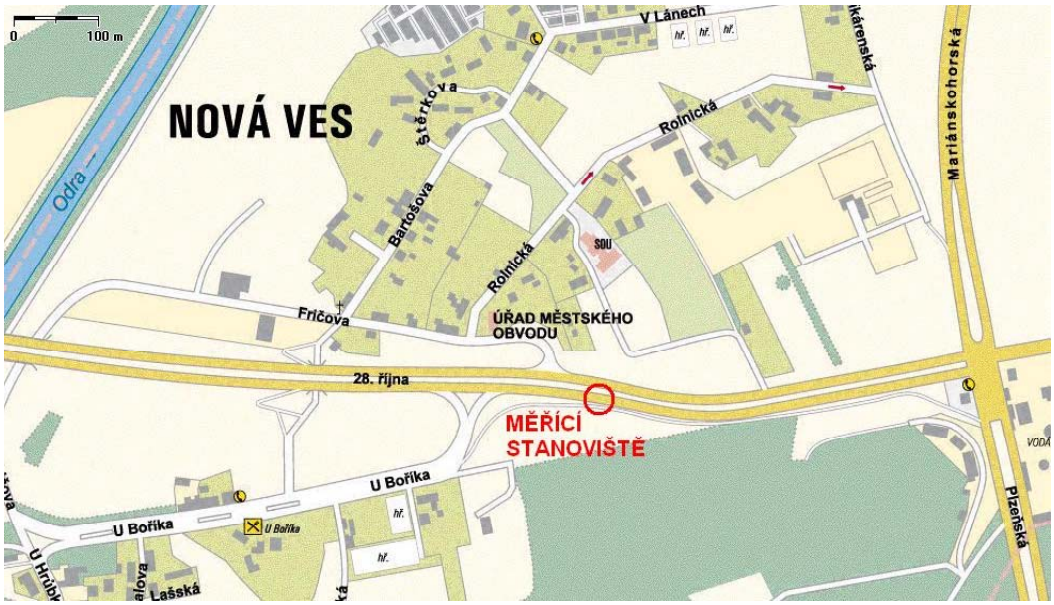


Picture No. 1 Identification of a measuring place

Picture No. 2
View of vehicles coming from Poruba

Picture No. 3
View of vehicles going to Poruba

2 The purpose, description and results of measuring

The purpose of measuring was to monitor using of passing lights during a day. For this measuring a sunny day was chosen deliberately and also a day when drivers don't have to have their passing lights switched on according to the law No. 361/2000, about the traffic on ground communications (i.e. in the period of DST).

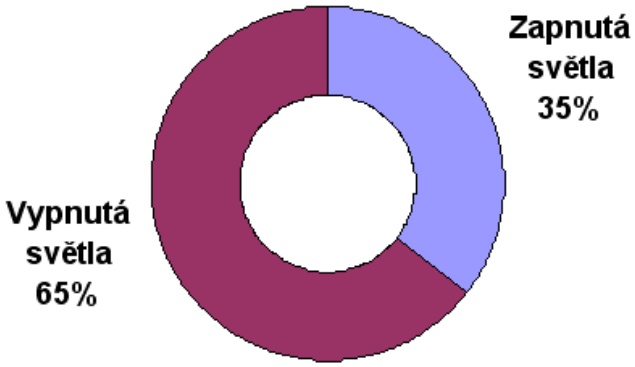
Both traffic directions was monitored i.e. vehicles coming from Poruba and vehicles going to Poruba. First mentioned direction was also recordered on a video cassette. Trams were excluded from that measuring (in Ostrava city trams must have their ligths switched on over a full year and during the day too according to an internal regulation of Dopravní podnik Ostrava, a.s.). Drivers of motorbikes and mopeds who are bound to keep the lights on over a full year according to a particular law were excluded from that measuring too.

The measuring results are tabulated (see tab. 1) and graph–structured (see pictures No. 4 and 5).

Tab. 1 Measuring dates

Vehicles going …	**... from Poruba:**		**... to Poruby:**	
Type of vehicle:	**switched on**	**switched off**	**switched on**	**switched off**
- personal motor car (OA):	**200**	**331**	**170**	**323**
*- company car *)*	*22*	*36*	*26*	*33*
- ambulance car	*1*	*0*	*0*	*0*
- police car	*0*	*2*	*0*	*1*
- TAXI	*0*	*1*	*0*	*0*
- bus (AB) **)	**10**	**0**	**10**	**5**
- delivery van (NA-m)	**8**	**40**	**13**	**36**
- truck (NA-v)	**1**	**3**	**9**	**28**
- tractor (T)	**0**	**0**	**1**	**1**
TOTAL:	**219**	**374**	**203**	**393**
Total for one direction:	**593**		**596**	
Total for both direction:	**1189**			

*) with a company logo
**) only vehicles of Dopravní podnik Ostrava, a.s.



Picture No. 4 Total evaluation graph – vehicles in both directions
(vypnutá světla = switched on; zapnutá světla = switched off)

3 Conclusions

The following deductions result from the measuring carried out in Laboratory of Road Transport (http://www.id.vsb.cz/lsd), Institute of Transport, Faculty of Mechanical Engineering, VŠB – Technical University of Ostrava. Approximately one third of all monitored vehicles (35,5 %) had their passing lights switched on during the day of DST.

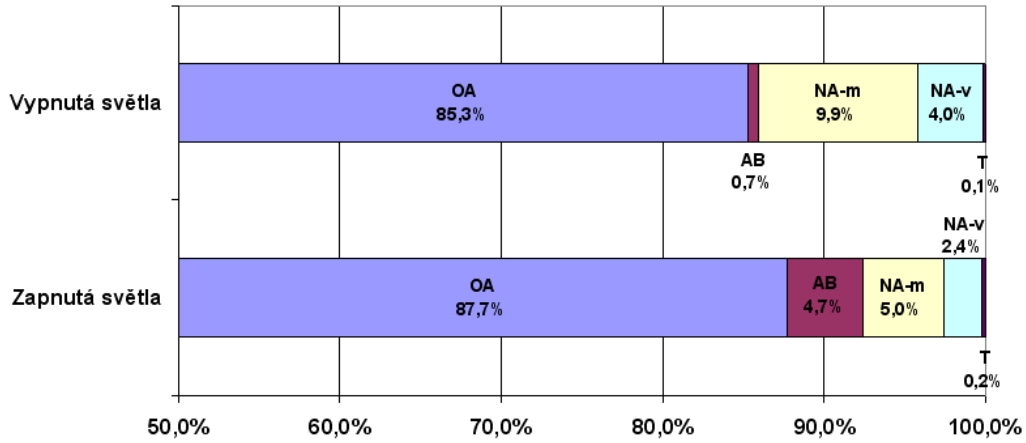
We can say that it is a positive fact especially because the measuring was carried out during a sunny day when we could expect much worse results. We can see that some drivers are aware of the importance of all-day lighting in summer, spring and autumn period of a year.

By detailed monitoring we can claim that many professional drivers didn't use passing lights during the day. It was 58,9 % of company personal cars and 77,5% of lorries and delivery vans.

We can see the opposite phenomenon at buses where just 20% did not have their passing lights switched on. During our measuring we saw only buses of Dopravní podnik Ostrava - realising the bus service in Ostrava city.

According to an internal regulation of DPO all means of transport must have their passing lights switched on during the day over a full year (it means not only buses but also trams and trolley buses).

It is not possible to objectively assess using of passing lights of ambulance car, police car and taxi due to a small sample (we saw only 1 ambulance, 3 police and 1 taxi cars).



Picture No. 5 Division according to the type of vehicle – vehicles going in both directions – see tab. No. 1 (vypnutá světla = switched on; zapnutá světla = switched off)

Note: The law No. 361/2000, about the traffic on ground communications, will be replaced by the law No. 411/2005 from 1st of July 2006. By this law the liability of using passing lights for all cars during the day over a full year will be legalized. This measuring supports sense and competence of a new legal regulation.

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[4] Vyhláška č. 30/2001 Sb., kterou se provádějí pravidla provozu na pozemních komunikacích a úprava a řízení provozu na pozemních komunikacích

[5] Zákon č. 361/2000 Sb. o provozu na pozemních komunikacích a o změnách některých zákonů

[6] Zákon č. 411/2005 Sb., kterým se mění zákon č. 361/2000 Sb. o provozu na pozemních komunikacích… (platnost od 1. 7. 2006)

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