

Anna Schirokoff ja Harri Vitikka: Muuttuvat nopeusrajoitukset autoilijoiden kokemina. Haastattelututkimus valtatiellä 9 (E63) välillä Tampere-Orivesi. [*Drivers' opinions on weather-controlled variable speed limits. Road side interview on 2-lane Main Road 9 (E 63) between Tampere - Orivesi*] Helsinki 2001. Finnish Road Administration. Finnra Reports 50/2001. 34 p. + app. 6 p. ISSN 1457-9871, ISBN 951-726-799-1, TIEH 3200696.

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ABSTRACT

The main objectives behind using variable speed limits on road sections are to increase traffic safety and the quality of traffic flow. The aim is to control the speed of the traffic flow with speed limits chosen according to the actual driving conditions. The variable speed limit systems on road sections differ from each other, e.g. concerning the face of the traffic signs (fibre-optic signs, electromechanical signs), the operating technics and the criteria to choose different speed limits. There is already a lot of information on how the fibre-optic traffic signs effect traffic flow, but the information re-garding the effects of various kinds of electromechanical signs still remains insufficient.

At the beginning of 2000, new electromechanical speed limit signs (with fluorescent reflective sheeting) were employed on two-lane Main Road 1 (E 63) between Tampere - Orivesi (35 km). The operator in the road traffic information center changes the signs according to the actual road weather conditions and operating criterias agreed. The speed limit value combinations used here differ from the normal ones: on road strips between junctions, values of 100, 80 or 70 km/h can be used, and at junctions 80, 70 or 60 km/h. It was necessary to collect drivers' opinions on this system and its operating policy, e.g. to further develop the operating procedures. Drivers' opinions were collected by roadside interviews (550 drivers) during the day on two working days in March, 2000. The answers were processed statistically at the Technical Research Center of Finland.

About half of the drivers interviewed had used the road section daily or weekly. According to their answers the variable speed limits equally improved the traffic safety and the fluency of the traffic. Nine out of ten car and van drivers knew that the speed limits were variable, and eight out of ten remembered what the speed limit was. Three drivers out of four knew that the speed limit values are set according to the weather and road surface condition, and six out of ten found that the system had no negative features. The speed limit values used were usually well accepted, because every fourth driver answered that the values had always been at the right level and furthermore two thirds of the drivers found the values to be mostly accurate.

Drivers were also asked about the suitable speed limit values on this road section during two typical driving conditions. Nine out of ten car and van drivers had the opinion that 80 km/h was most suitable in wintertime under bad driving conditions during the day. The opinions concerning the most suitable speed limit in wintertime under good driving conditions in the dark were fifty-fifty between the limits of 100 - 80 km/h. At night, 80 km/h was used between road junctions and 70 km/h at junctions, even under good driving conditions (This experiment was later terminated.)

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