

# The experiment of automatic speed enforcement - Final report

The results of the first year in the two year automatic speed enforcement experiment are presented in this report. Automatic speed enforcement covers 50 kms' stretch of the highway number 1. The number of speed camera sites is 12, and distance from one camera site to another varies from 1 to 7 kms. The experimental road has a control road, highway number 6. The computer and the camera are rotated in a random order from one camera pole to another. Drivers are informed of the experiment through signs erected on the surveillance area. Moreover, mass media is used to informing drivers in the course of experiment. Surveillance experiment were operated more than 8 000 hours during the two experimental years which equals 46% usage rate. During that time the speeds of about 1.5 million vehicles were measured. The share of photographed vehicles was 0,2%. Vans and drivers under 50 of age were clearly over-represented among those photographed. The greatest share, 76% of penalties, were classified as mild.

The most consequent effects of speed cameras were seen in the reduction of speeds over the posted limit. The carry-over effect was strongest 0.5(2.5 kms downstream from the camera pole. Then, the share of speeding vehicles was 20(50% lower compared to the base line year 1991. On some sites the reduction of mean speeds stretches out to about four kms downstream from the surveillance source. Measurements 9(10 kms from the surveillance sites show about 10% reduction in the share of speeding vehicles. Proportionately the reduction of speeding vehicles has been strongest among those travelling at the highest speed. No comparable speed reductions were measured on control sites.

Compared to the first year, no major changes took place in the share of speeding drivers. It seems that automatic enforcement has long lasting effects on speed behaviour.

Mean speeds were 1 to 3 km/h lower right by the camera poles than one kilometre further away downstream or upstream from the poles. Consequently, automatic speed enforcement doesn't cause significant turbulences in the traffic stream.

Almost 90% of drivers approved or strongly approved automatic speed enforcement if they are informed of the surveillance area through signs erected on the road sites. The attitudes of drivers towards automatic speed enforcement did not change in the course of the first surveillance year.

The probable effect of automatic speed enforcement is 19% reduction in accidents. The figure, however, is not statistically significant and more accident data is needed to confirm the result.

The operation costs of conventional speed enforcement are 8.4 times higher than those of automatic speed enforcement.

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[Mäkinen, T.](#), & [Rathmayer, R.](#) 1994. The experiment of automatic speed enforcement ( Final report. Espoo, Finland: Technical Research Centre of Finland, Communities & Infrastructure, Transport Research, Research Report 237. 47 p. + apps. 6 p. Finnish.

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