

UMEÅ – Results “Smart Speed”



LARGE-SCALE TRIAL

Between 1999 and 2002 the Swedish National Road Administration (SNRA) worked in partnership with the local authorities in Umeå, Borlänge, Lidköping and Lund on a large-scale trial involving new technology aimed at making it easier for drivers to keep to the speed limit in built-up areas. This technology is called ISA, which stands for Intelligent Speed Adaptation. Drivers in Umeå tested a type of ISA that warned them through light and sound signals if they were driving too fast. The ISA equipment used in Umeå was called a “speed checker”.

4000 VEHICLES IN UMEÅ

The Swedish Motor Vehicle Inspection was commissioned to install the ISA system in the vehicles. A survey was made of different vehicle models to be able to select those in which it would be technically possible to install ISA. This was followed by an extensive recruitment procedure. In all, more than 5 000 people wanted to become test drivers. However, not all of these had suitable vehicles, and in the end ISA was installed in some 4 000 vehicles and subsequently tested for between one and two years.

TEST DRIVERS’ OPINIONS

Many test drivers had to answer questions before, during and after the trial about their views on ISA as

well as other traffic calming measures. The results of the questionnaires can be summarised as follows:

- Test drivers thought that ISA makes it easier to keep to the speed limit.
- Three of four test drivers found it easier to keep to 30 and 50 km/h in built-up areas when they had ISA in their vehicle.
- Test drivers felt that they had reduced their speed on the test stretches, and that they had also become more observant of speed signs outside the trial area.
- Test drivers saw ISA as an aid in keeping to the speed limit and thought that the information provided by the system was clear and gave a sense of security.
- Test drivers felt that the risk of being caught for speeding within the test area had been reduced.
- The majority of the test drivers (70 percent) believed in an ISA system that issues a warning when the speed limit is exceeded.
- Half of the test drivers thought that ISA should be compulsory in urban traffic.
- Two of three test drivers wanted to keep the ISA system in their vehicle after the end of the trial.
- The test drivers wished they could have changed the sound signal, which many thought was too loud.
- ISA was considered most motivated on 30-stretches by schools and daycare centres.
- Test drivers thought that ISA is better than road humps and other physical measures for reducing speeds.

- Test drivers thought that ISA is a good tool for improving adherence to the speed limit. ISA, along with police surveillance were largely seen as something positive, while road humps, raised pedestrian crossings, flower tubs and mini-roundabouts were considered to be less effective in getting drivers to keep to the speed limit.

TRAFFIC SURVEY RESULTS

Extensive traffic surveys were conducted every year between 1999 and 2001. Pneumatic tubes were used at just over 100 places to measure the speed of every individual vehicle.

The average speed on 30-streets was reduced by 0.6–0.9 km/h. The corresponding figures for 50-streets was 0.6–0.7 km/h. This could be attributed to the four to ten percent ISA vehicles out in traffic. Very little effect could be determined on 70 roads.

The risk of a traffic injury was judged to be three percent lower in the ISA area. It should be noted that during the same period, accidents statistics involving injury for Sweden as a whole had increased by three percent.

THE FUTURE

It is hoped that the automotive industry will take advantage of driver interest in ISA and that they continue developing the technology and integrate it in new cars. A speed database covering the entire country must also be built up.

Legislation or different kinds of subsidy could be required to get ISA installed in as many vehicles as possible. The responsibility for this lies with the local authorities, Parliament and the SNRA.

The presidium of the public works committee could confirm broad political unanimity in Umeå for continuing the work on developing new electronic aids to improve road safety and the environment. Umeå Municipality would like to take advantage of the positive signals given by road users as well as continue building on the expertise and experience resulting from "Smart Speed". The Municipality will now be actively on the lookout for new projects.



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TEST DRIVERS

SMART FART



Roland Granström can't see anything bad about the "speed checker".

ROLAND CAN'T SEE ANYTHING BAD ABOUT ISA
 After two years as a test driver, Roland Granström hardly ever thinks about the fact that he has a "speed checker".

"It goes without saying that it sometimes rouses my attention when it starts beeping, that's the best thing about it. And then I like it because it's time-installed; it beeps at different speeds outside schools depending on the time of day. I can't see anything bad about the "speed checker", I just think it is a terrific idea."



As a bus driver, Mikael Ståhl keeps more alert so that his passengers won't have to hear the beeping sound.

THE TECHNOLOGY NEEDS TO BECOME MORE EXACT
 Mikael Ståhl has driven a bus for 20 years and has tested the "speed checker" for two years.

"At the beginning, I was a little startled when I didn't think it should be beeping. But it turned out that I was always driving too fast. You're driving along at 50, and when the speed becomes 30, you lighten up on the accelerator. Now I think about doing this a little earlier. As a bus driver, you keep more on the alert because you don't want to listen to the beeping, and above all, you don't want the passengers to hear it." Mikael thinks that most of his colleagues like ISA, but that the technology should be worked on a little and become more exact.

MORE INFORMATION

More information about the ISA trial can be found at:
www.umu.se/trum/trumpublikationer.htm#arbrapp
www.vv.se/isa