

Requirements for traffic information in case of non-recurrent congestion

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Graduation Date:
29 October 2004

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Introduction

Tuesday morning, 16 September 2003, 7:10 am: Because of the limited visibility caused by the fog a collision takes place on the A7 near Oudendijk. Three cars, a truck and a motorcycle are involved in this multi vehicle accident. Two lanes in the direction Amsterdam have to be closed. The traffic is redirected through the N247 but soon the limited capacity on this road was exceeded and the traffic got stuck. Because of this the local roads connected to the N247 got congested as well. Drivers desperately try to use alternative routes but partly because of road maintenance these routes were not available which resulted in a complete traffic chaos in the area.

Noordhollands Dagblad, 17 September 2003.

This is just an example an incident on the Dutch road network and it's effects. The accident takes place in the morning peak. Because of the limited capacity remaining traffic gets congested. Drivers start rerouting but have to little information about the current state of the road network (i.e. maintenance, other congestion, etc) with the result that things get worse. Maybe they should have stayed on the N247 and take their loss, who knows ...

Road users in the Netherlands have to rely on traffic information mainly given by radio. Most road users are aware of recurrent congestion and can, more or less, anticipate on it, in case of incidents the current level of traffic information seems too limited. Radio broadcasts are once every half an hour at the most and the content is very limited.

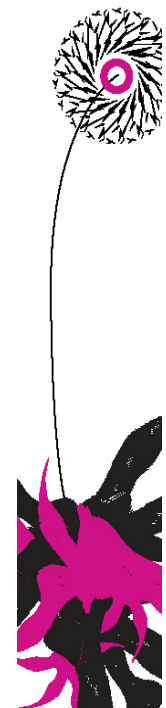
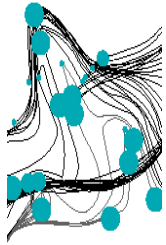
With the development of new (in-car) systems, new ways of information supply become available to support drivers on their journey. The possibilities seem unlimited. Information can vary from simply naming the cause and location of the incident to sophisticated route information with the shortest, fastest or cheapest route (or a combination of all three), just what the driver wants. But the question is: *"what does the driver want, what do they need and how do they react to the information?"*

Aim of the study

This research will try to resolve the preferences and reactions of drivers towards 'new' traffic information. The research will focus on traffic information in case of non-recurrent congestion. The *target* of the research therefore is: *Look for ways, which will improve the situation of road users, by means of a better information supply, in case of an incident on the road network.*

Research methods

The first part of the research will contain a literature review after the current information supply and its limitations. In the second part a survey will be conducted to find out how drivers appreciate and respond to various kinds of traffic information. In the survey drivers will be confronted with various situations with different information. Finally, an estimation will be made to what extent the new information technologies can contribute to improve the situation of road users.



De onderzoeksuitkomsten wijzen op een scherpe tegenstelling tussen de doelstellingen van het mobiliteitsbeleid. Het mobiliteitsbeleid is enerzijds gericht op het maximaliseren van het gebruik van de trein en anderzijds op het doorbelasten van de kosten van het gebruik van het spoor via een gebruiksvergoeding. De huidige gebruiksvergoeding per treinkilometer dient meer als inkomstenbron van de overheid gezien te worden dan als sturingsinstrument voor mobiliteitsbeleid. De resultaten van het onderzoek geven aan dat beprijzing van infrastructuur op basis van treinkilometers een ongewenste stimulans aan vervoerders geeft, omdat een hogere frequentie, ongeacht eventuele differentiaties, automatisch leidt tot een hogere heffing. Frequentieverhogingen die meer reizigers aantrekken, worden hierdoor ontmoedigd. Dit staat haaks op de doelstelling van het mobiliteitsbeleid om het gebruik van de trein te maximaliseren. Een degressieve heffing over treinpaden kent dit nadeel niet en moedigt hogere frequenties juist aan met een lagere heffing. Onder de voorwaarde dat de heffing een significante invloed heeft op de kosten van de vervoerder, biedt deze heffingsvorm mogelijkheden als sturingsinstrument voor mobiliteitsbeleid.