

XIII INTERNATIONAL WINTER ROAD CONGRESS

QUÉBEC, FEBRUARY 8 TO 11, 2010





SUSTAINABLE WINTER SERVICE FOR ROAD USERS Block dispatching for HGVs on problematic road sections during extreme winter weather conditions Susanne Schulz Karlsruhe Institute of Technology Institute of Highway and Railroad Engineering Research Associate susanne.schulz@kit.edu

Railroad Engineering

Karlsruhe Institute of Technology

BACKGROUND

Research Project
«Coping with High Traffic Volumes
on Federal Motorways in Winter»

(by order of the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) and represented by the Federal Highway Research Institute (BASt))



BACKGROUND

- HGVs blocking the road in winter cause
 - Long traffic jams
 - High economic costs
 - Winter maintenance vehicles locked in traffic jams





BASIC CONDITIONS

- Region with heavy snowfall
- High inclination (> 4%)
- Detailed Road Weather Information (RWIS)
- Stop on the right-hand lane
- Easy understandable traffic signs
- Stopping time of approx. 10 minutes
- Detailed information for the road users



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- Baden-Wuerttemberg, Motorway A8
- Bavaria, Motorway A8 East

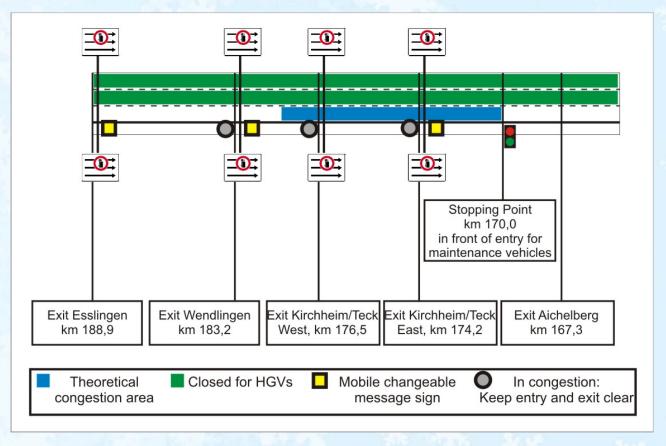


ORGANISATION

- Involved institutions:
 - Highway surveillance centres
 - Highway Police
 - Different public authorities
 - KIT (Institute of Highway and Railroad Engineering)
- Concept of traffic signing
- Public relations
- Design of operation schedule



CONCEPT OF TRAFFIC SIGNING







Trivision traffic signs



CONCEPT OF TRAFFIC SIGNING

■ Mobile changeable message signs



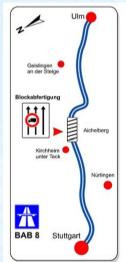


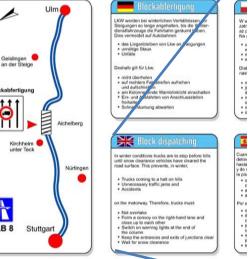


PUBLIC RELATIONS











In winter conditions trucks are to stop before hills until snow clearance vehicles have cleared the road surface. This prevents, in winter,

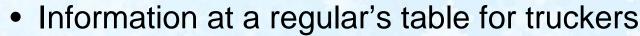
- Trucks coming to a halt on hills
- · Unnecessary traffic jams and
- Accidents

on the motorway. Therefore, trucks must:

- Not overtake
- Form a convoy on the right-hand lane and close up to each other
- . Switch on warning lights at the end of the column
- Keep the entrances and exits of junctions clear
- Wait for snow clearance



- Radio announcements
- Papers in trade journals

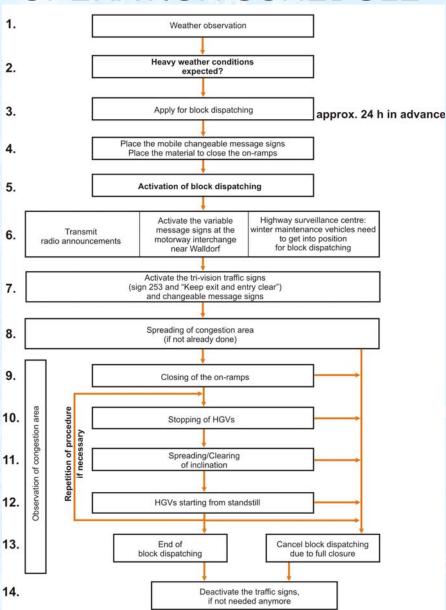








OPERATION SCHEDULE





BLOCK DISPATCHING FOR HGVS ON PROBLEMATIC ROAD SECTIONS DURING EXTREME WINTER WEATHER CONDITIONS

RESULTS AND CONCLUSION

- So far no results about the stopping procedure itself, but:
 - Involved institutions think the measure is positive
 - Traffic signs are successfully in use
 - Acceptance of drivers is given







THANK YOU!

