



Adaptive Driving Beam (ADB)  
- Test Drive Geneva 30.03.2010 -

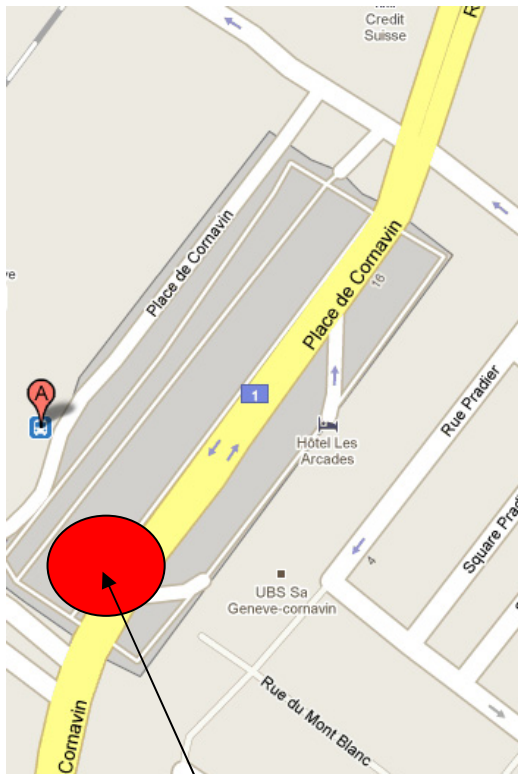
Bernd Woltermann, Friedrich Mueller, Daimler AG

24.03.2010

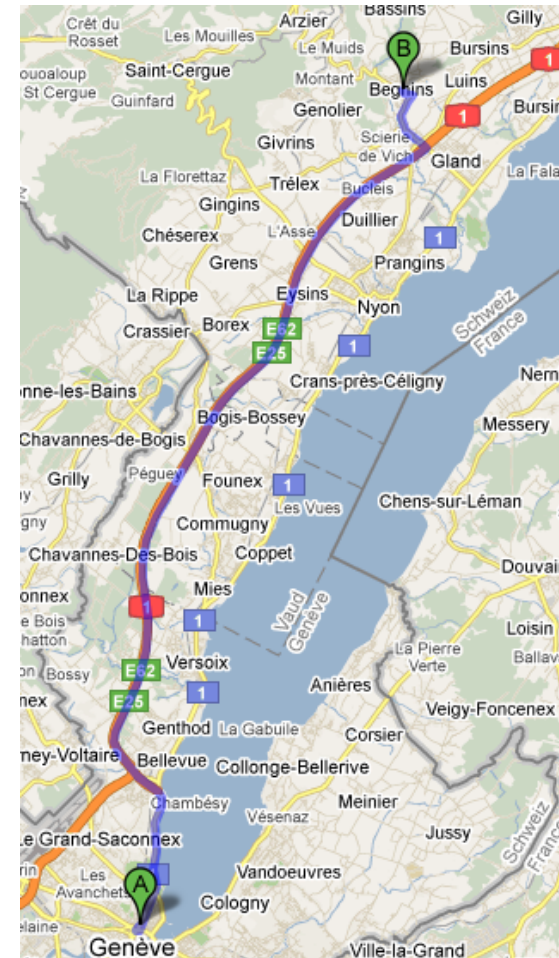
## Timetable

- 08:30pm Pickup at Gare de Cornavin, transfer to Begnins
- 09:00pm Start night time test drive in Begnins
- 10:30pm Transfer Begnins to Gare de Cornavin
- 11:00pm Arrival Gare de Cornavin

## 8:00pm Meeting point: Gare de Cornavin, Exit to Rue de Mont Blanc



Meeting Point



Route to test area: Route de Gland, Begnins

08:30pm: Begnins

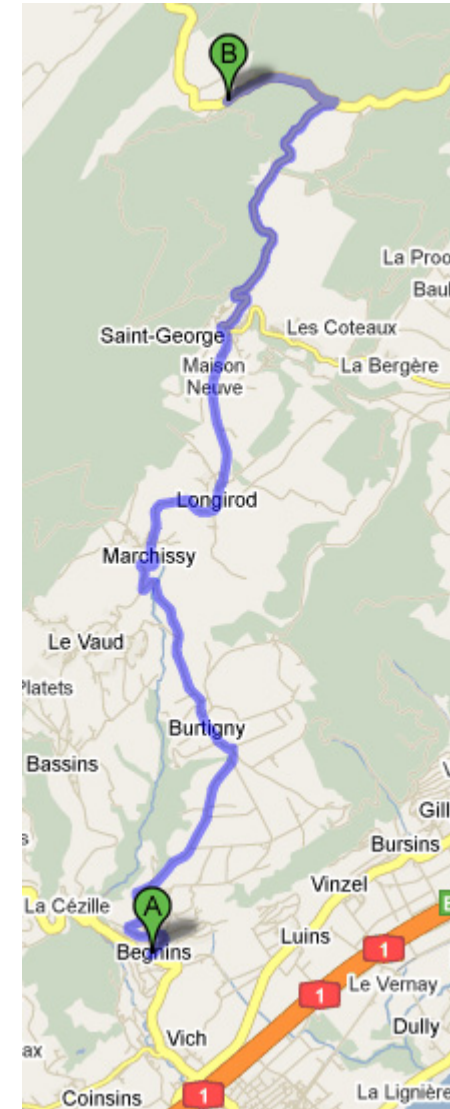
- Meeting Point Begnins: Route de Gland, Bus station



## Test Drive Route

**Route:**

[http://maps.google.de/maps?f=d&source=s\\_d&saddr=46.44059,6.247164&daddr=46.541565,6.259975&hl=de&geocode=FY6gxAlD\\_FjFAA%3B&mra=dme&mrcr=0&mrsp=1&sz=14&sll=46.542038,6.267357&sspn=0.041739,0.093985&ie=UTF8&ll=46.504537,6.2677&spn=0.167069,0.375938&z=12](http://maps.google.de/maps?f=d&source=s_d&saddr=46.44059,6.247164&daddr=46.541565,6.259975&hl=de&geocode=FY6gxAlD_FjFAA%3B&mra=dme&mrcr=0&mrsp=1&sz=14&sll=46.542038,6.267357&sspn=0.041739,0.093985&ie=UTF8&ll=46.504537,6.2677&spn=0.167069,0.375938&z=12)



## Test drive - Timetable

<b>Departure</b>	<b>Begnins</b>			<b>Outward journey</b>	<b>Return journey</b>
09:00pm	Schneider, Wolfgang	Pernkopf, Michael	Laurent, Vincent	Mercedes Class S	VW Touareg 1
09:05pm	Joshi, Madhusudan	Karkkainen, Timo	Langhammer, Gert	VW Touareg 1	Mercedes Class S
09:10pm	Tsukada, Yuki	Shamsundara	Blousseau, Eric	Opel	Hella
09:15pm	Genone, Valter	van Laarhoven, Wilfried	Kellermann, Gerd	Hella	Opel
09:20pm	Suzuki, Nobuatsu	Suzuki, Tadashi	Prigent, Jean-Marc	Audi A8	Gentex
09:25pm	Leveratto, Daniela	Tmbalaraman	Terburg, Bart	Gentex	Audi A8
09:30pm	Figuiere, Stéphanie	Virendra	Kunieda, Hirotsugu	VW Touareg 2	Mercedes Class E
09:35pm	Kubota, Hidenobu	Binani	Fujita, Teruyoshi	Mercedes Class E	VW Touareg 2

In addition to the test cars, Mr. Rovers will provide a rental car to experience the different system as „another road user“.

## Test vehicle 1: Mercedes Benz Class S

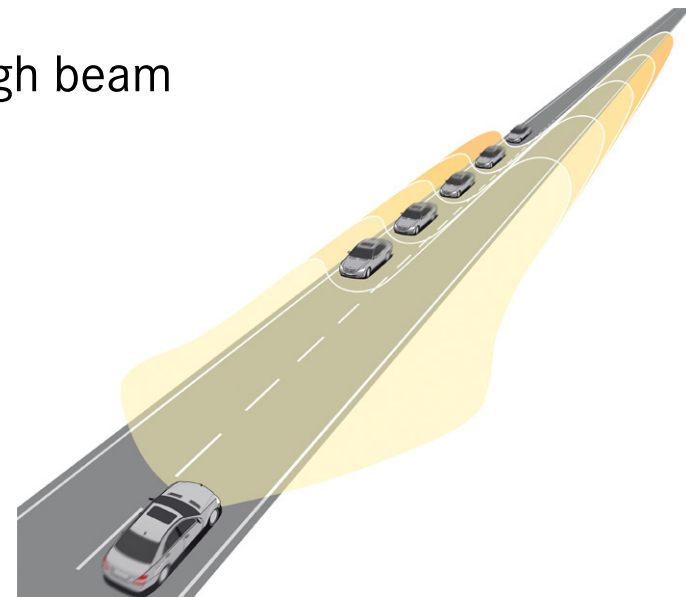
Advisor: Bernd Woltermann



Mercedes-Benz

### Mercedes-Benz Automatic High Beam Assist with Adaptive Low Beam

- Automatic soft switching between low and high beam
- Adaptive low beam: the range of the low beam light is increased up to the next vehicle on the road
- World wide market introduction 04/2009
  
- Operation
  - Set Rotary Light Switch to “Auto”
  - Push steering column lever in high beam position
  - ➔ Full Automatic low and high beam light



The low beam light is automatically reduced by an approaching vehicle

## Test vehicle 2: Volkswagen Touareg

Advisor: Martin Freese

### Volkswagen Dynamic Light Assist Launched to Market with the New Touareg

Volkswagen Dynamic Light Assist (DLA) is a high sophisticated High Beam Assist (HBA) controlling the high beam light distribution adapted to the actual traffic situation via a camera signal. The main difference to already existing HBA is the use of partial high beams as shown in figure 1 and 2 exemplary.

Fig. 1 Partial high beam, driving behind an car

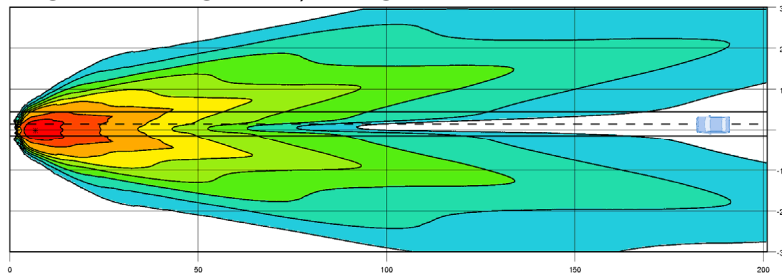
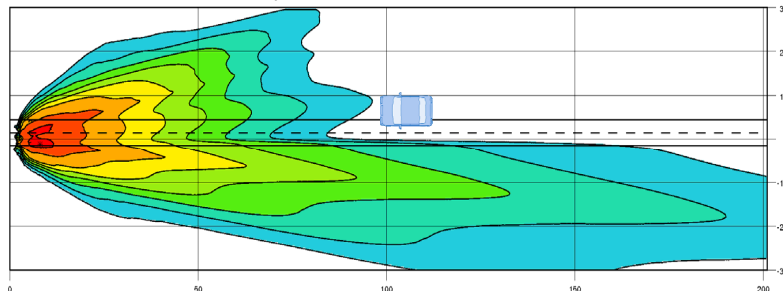


Fig. 2 Partial high beams, passing oncoming traffic with high beam on the right lane; overtaking is mirror-inverted



#### Operating DLA:

- a) Ignition on
- b) Set Rotary Light Switch to „Auto“
- c) Push High Beam Lever
  
- d) manual control by using the high beam lever possible at any time

#### Telltale DLA:

- a) white telltale, when DLA is ready
- b) blue telltale for high beam, when the light distribution doesn't comply with low beams.



## Test vehicle 3: Opel Insignia

Advisor: Thomas Goldbach



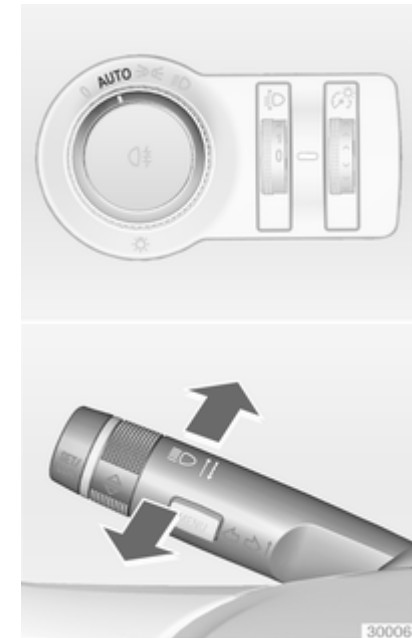
Wir leben Autos.

### Opel High Beam Assist

- High beam automatically on at night when vehicle speed is above 40 km/h.
- Assist is switching automatically to low beam when the camera detects lights of oncoming or preceding vehicles, vehicle speed is below 20 km/h, or if it is foggy or snowy.
- A green control indicator illuminates continuously when the assist is activated, the blue one illuminates when high beam is on.

### Operation

Turn the knob for the light control into the "Auto" position and push the "indicator lever" twice.

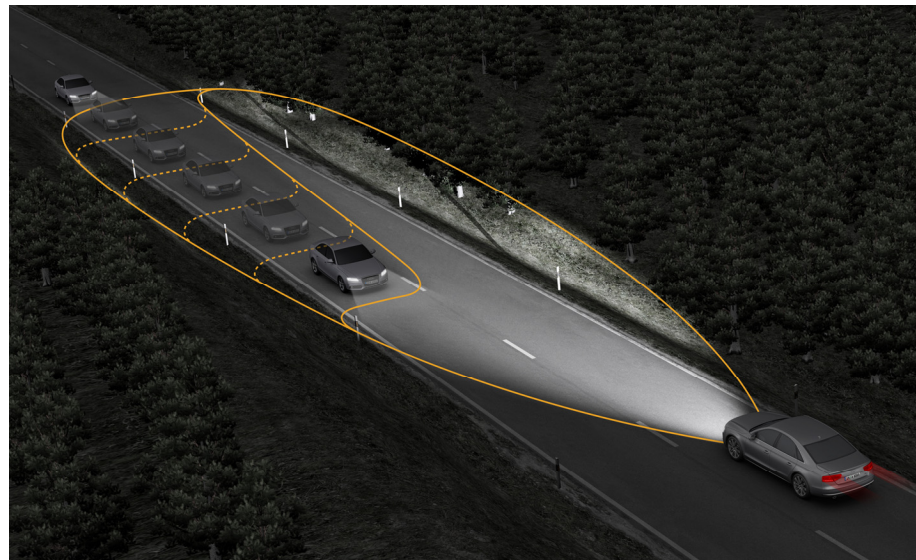


## Test vehicle 4: Audi A8

Advisor: Benjamin Hummel



- High Beam Assist Plus in the new AUDI A8
  - Automatic switching between low and high beam
  - The headlight range is adapted to the next vehicle on the road



- Operation
  - Set rotary light switch to “Auto”
  - Push steering column lever in high beam position
  - ➡ Automatic adaptation of the headlight range is activated

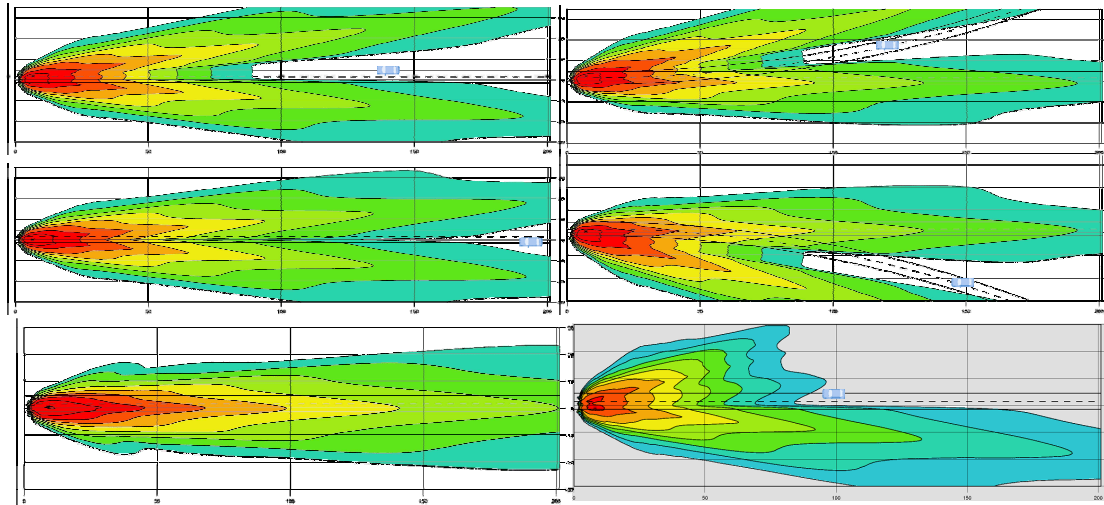
## Test vehicle 4: Mercedes W211 ADB Test Car

Advisor: Christian Schmidt



### The Hella system is a basic development for OEM applications

- Hella ADB System shows an advanced headlamp system combining High Beam Assist (HBA) and partial high beam.
- The distribution adapts to the actual traffic situation via camera signal.
- The figure below shows some possible distributions for the partial high beam.



#### Operating ADB System:

- a) Ignition on
- b) Set Rotary Light Switch to „Auto“
- c) Push High Beam Lever
- d) Manual control by using the high beam lever possible at any time

#### Information about ADB System:

Information about the system status are displayed in an additional display

## Test vehicle 6: Gentex (Audi Q5)

Advisor: Hoerg Olbort

**GENTEX**

A Smarter Vision®

### High Beam Assist

- Automatic switching between high beam and low beam and vice versa
- Available for all types of headlamps – Xenon, Halogen and Mixed bulbs
- Introduction for Xenon in 2005, Halogen in 2009
- Operation
  - Ignition on
  - Main light switch to auto
  - Push stalk switch forward to activate system
  - Manual override possible by pulling towards driver



Test vehicle 7: Volkswagen Touareg → Page 8

Advisor: N.N.

Test vehicle 8: Mercedes-Benz Class E → Page 7

Advisor: Friedrich Müller