



# AutoWeek



**ZOOM** A picture of Mercedes's Attention Assist will keep drivers alert in the E-Class.

Mercedes's Attention Assist will keep drivers alert in the E-Class.

By **MICHAEL TAYLOR**

With fatigue causing more than 100,000 crashes and 1,500 deaths annually on roads in the United States, Mercedes-Benz has rushed to make the world's first drowsy-driver detection system standard on next year's new E-class sedan.

Mercedes, which has been working on the system for more than 10 years, accelerated its development and will reveal it at the North American International Auto Show in Detroit next month.

Mercedes claims its system is an independent judge of fatigue, constantly monitoring a driver's behavior to send warning chimes and flare a coffee-cup sign when it senses a serious drop-off in alertness levels.

"Studies show that after just four hours of driving, the risk of an accident doubles," Mercedes-Benz Attention Assist expert Jorg Breuer said. "It increases eightfold after six hours, and drivers often fail to recognize drowsiness early enough."

To identify the point when drivers slip from awareness to weariness, engineers fitted almost 600 drivers with brain-wave-monitoring skullcaps. They figured out that there were 70 parameters that would give a better measure of fatigue than proposed camera-based systems. But the key was steering inputs.

As a result, while other safety innovations such as airbags have meant major engineering changes, the E-class's Attention Assist demanded just one new mechanical part: a more accurate steering sensor. In addition, the system monitors braking, acceleration, the time and road conditions to judge a driver's behavior.

Breuer noted further benefits of the system: "It is also sensitive to distracted drivers who are on the cell phone or talking to the kids in the back seat. They will get a warning, too."

He added, "The effects of alcohol are very, very similar to the effects of drowsy driving, and we would assume it would work for that, too."

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