

JALOPNIK

If We're Going To Stop Crashing At Night, Detection Is The Key



It's been established that the 2014 Mercedes-Benz S-Class is packed with a lot of new car technology that's going to be widespread in a few years. With all of the talk about making a car that effectively drives itself, the S-Class foreshadows some pretty amazing technology that's going to make driving a lot safer – starting with being able to see better in the dark.

A company called Autoliv has now developed what they think is going to make night vision systems even more appealing to drivers: the ability to avoid deer collisions with animal detection.

Called Night View Assist Plus in the S-Class (it's a Mercedes, so they couldn't just call it Pedestrian and Animal Detection), it's the first major step in avoiding what's generally acknowledged as one of the most terrifying and unavoidable types of crashes in this country and around the world. Drive for long enough, and chances are you've had at least a near-miss with hitting an animal.

Autoliv General Manager Richard Seoane and Managing Director Stuart Klapper said the system is a product of years of research in numerous parts of the world where engineers teamed with scientists to study animals and develop a product that worked for many different species around the world.

"There are so many different types of sizes and shapes of animals, and they all act differently," Klapper said. "Pedestrians are a lot easier to detect because they're more predictable."

Night Vision systems in cars have been around for more than a decade and the current S-Class even has one. But when teamed with detection systems, they become startlingly more useful. Systems offered in Audis and BMWs, for example, have had pedestrian detection developed by Autoliv since 2008. And to reacquaint myself with how these work, the company let me have a go in an Audi A8 and BMW 7-series with the latest systems. They also had a couple of their engineers from their facility near Santa Barbara, Calif. on hand to be the pedestrians the car thought I was going to hit. We only attracted the attention of a passing sheriff's department car once, too.

One thing's for sure: these systems aren't helped by the steep learning curve the controls in modern German cars require. And second, even on a closed course with a willing participant, intentionally driving a car straight at a person without hitting the brakes is really hard to do. The system works best between 11 and 20 mph, and charging through an empty office park straight at an engineer at that speed is a little disorienting. So much so, in fact, that Seoane got into the driver's seat of the test 7-series so I could actually see night vision display light up with a person and lots of BMW triangles flare up.



Autoliv says animal-related crashes cost Americans \$3.5 billion per year, and Klapper said Autoliv engineers have worked since 2007, visiting animal parks and nature preserves and working with people to study movements of a broad range of species to get the electronics to understand the difference between elk and ostriches, for example.



Seoane said the animal detection is going to work similarly to the pedestrian detection in the S-Class and some other 2014 Audi and BMW cars – including the 2014 BMW X5 – in that lots of lights and warnings will come up to alert the driver of impending doom. But better still will be the detection systems when teamed with auto-brake features that react quickly to avoid a crash altogether. Klapper said that's the goal, to get all of these driver aids to work seamlessly in concert to prevent incidents. It's getting there.

Still, people buying them on expensive German luxury cars are probably buying for the wow factor more than anything else right now. Autoliv has made inroads with other manufacturers and hinted night vision with detection systems will be available on much more affordable cars soon, with thousands of cameras every year being made at the Goleta facility.

I think a lot of people who like to drive are against electronics that actually interfere with the act of driving. We detest stability control we can't fully switch off, and rightly so. But night vision and detection systems fall into the category of supplements that, so far, you can fully switch off and that simply help you see better when you're not sure what's going to pop out.

Anything to avoid deer conflicts.