

Edited by Patrick Ponticeal

NHTSA caps off changes to NCAP

The U.S. National Highway Traffic Safety Administration (NHTSA) has announced significant changes to its New Car Assessment Program (NCAP) for model year 2010, including use of a new overall vehicle safety score that is a compilation of the current multiple ratings into one jumbo safety score. Also, for the first time, the presence (or lack thereof) of three crash-avoidance technologies will be noted.

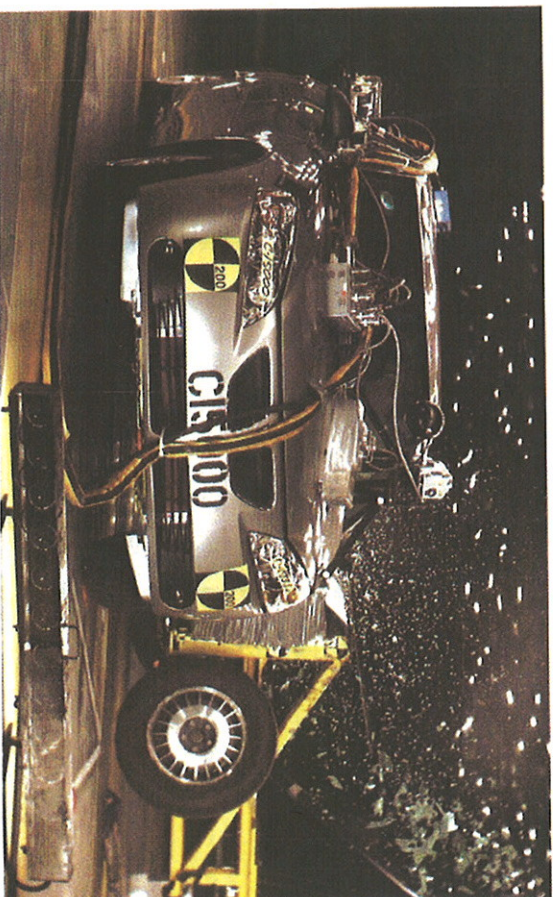
The changes are being made to help consumers differentiate the safety of new models. NHTSA is expected to award fewer four- and five-star ratings. They apply to passenger cars and to light-duty-truck category of vehicles that includes pickup trucks, SUVs, and vans.

Asked for comments on the impact of the changes on auto design and engineering, and costs, spokesmen for **General Motors** and **Ford** referred questions to the Alliance. Wade Newton, an Alliance spokesman, declined to comment on specifics.

Said Martha Voss, national public affairs manager for **Toyota**: "We didn't comment on the announcement. It's my understanding that there's concern about confusing the public, since it is pretty complex and will differ from the previous ratings."

The NCAP program currently awards up to five stars in five separate categories—two for frontal crash safety (driver, passenger), two for side crash safety (front, rear), and one for rollover safety. In the frontal test, a vehicle collides head-on with a barrier simulating a car of equal weight at a velocity of 35 mph. The side test involves crashing a movable deformable barrier having a mass of 3015 lb into the side of a vehicle at 38.5 mph. The rollover involves the vehicle being turned sharply around a turn to see if both wheels on one side rise off the ground.

NCAP has been in place since model year 1979, when NHTSA began publishing frontal-impact ratings. In 1997, NHTSA extended its five-star rating system to side impact, and in 2001 to rollover.



A movable deformable barrier crashes into a Pontiac G6 at General Motors' Proving Grounds in Milford, MI.

In the upcoming 2010 changes to NCAP, NHTSA will add a new "oblique pole" test for side-impact assessment.

The test already is being phased in as part of Federal Motor Vehicle Safety Standard (FMVSS) 214, which is a requirement.

While the pole test is meant to encourage manufacturers to use side airbags with head protection, it is worth noting that about 50% of 2007 models already had them as standard equipment. For the movable deformable barrier side test, NHTSA decided to incorporate the new 50th-percentile male ES-2re dummy in the driver position and the 5th-percentile female SID-1is dummy in the rear seating position, paralleling the methodology used for FMVSS 214.

For the frontal test, NHTSA will use a female dummy for the first time, placing it in the passenger seat. GM was a major advocate for that, arguing that smaller females were at greater risk and more likely to be seated in the right front position in frontal crashes. While Australia, Europe, and the **Insurance Institute for Highway Safety** all use lower leg and foot injury measurements in their front test (and left legs in the IIHS side test), NHTSA decided not to use lower extremity measurements mostly because an SAE

International task group is doing research in that area; NHTSA wants to wait for those results.

Regarding rollover, automakers had pushed NHTSA to add a possible sixth star to the rating for vehicles that have electronic stability control. In fact, the

Alliance of Automobile Manufacturers wanted a separate crash-avoidance rating to supplement the current crash worthiness rating. But NHTSA decided against those ideas.

NHTSA plans to initiate a rulemaking to include the overall NCAP rating on a new car's window sticker. Currently, automakers must put the five individual ratings on the **Moroney** labels of new models within 30 days of being notified by NHTSA of the ratings.

For NCAP, NHTSA tests a select number of new models annually—those expected to be the best sellers. The agency makes the ratings available to consumers via the **Internet** and brochures. NCAP crash results are also incorporated in different vehicle safety ratings developed by others, such as **Consumer Reports** and **The CarBook**, both of which get more extensive distribution than direct NHTSA reporting.

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