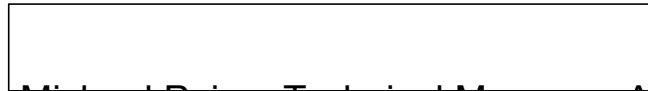


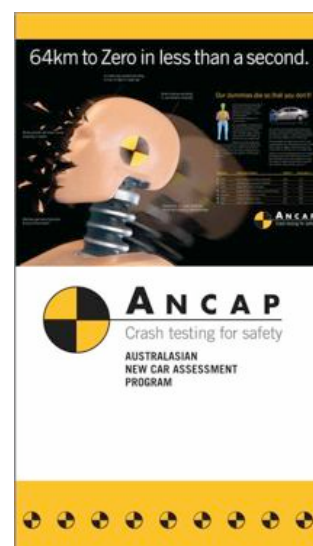
Technical Briefing



Michael Paine, Technical Manager ANCAP

Outline

- Changes to Euro NCAP rating system in 2009
- Changes to Euro NCAP Protocols (version 4.2)
- Changes to US NCAP
- Changes to Korean NCAP
- Status of pole tests
- Rating of variants
- Rear seat occupant protection
- Protection in rollover crashes
- Whiplash assessment



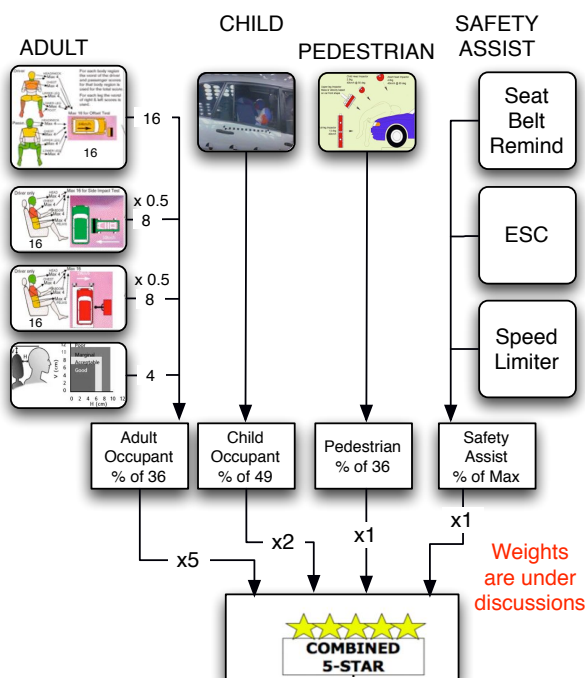
Changes to Euro NCAP Rating System

- Overhaul of the rating system in 2009
- New whiplash rating (discussed later)
- New “Safety Assist” rating gives scores for seat belt reminders, ESC and “Speed Limitation Devices”
- Pole test scored for all body regions (not just head) - still optional & side airbags required
- Pole and Side impact scores out of 8 (were 2 and 16 respectively)
- Adult occupant protection rating (%) based on offset, side impact, pole and whiplash results
- 5 Star rating based on Adult, Child, Pedestrian & Safety Assist ratings

3

3

POSSIBLE EURO NCAP CHANGES



- Euro NCAP will be retaining the same crash tests and assessment criteria so ANCAP can continue to republish ratings for local models.
- No change to ANCAP 5-star occupant rating

4

4

Changes to Euro NCAP Protocols

Version 4.2 of *Assessment Protocol*, June 08

- The "Hazardous Airbag Deployment" modifier (Airbag "slap") - ANCAP reviewing
- "Incorrect Airbag Deployment" modifier will be applied even if the airbag as not intended to offer protection in that particular impact - ANCAP reviewing
- Knee modifier assessment allows the variable contact modifier to be split between the steering column and dash/facia (eg 0.5 point each) but not if a concentrated load modifier also applies - ANCAP adopting
- Door opening modifier to include dynamic opening - ANCAP reviewing
- Backplate & T12 modifier clarification - ANCAP adopting

5

US NCAP

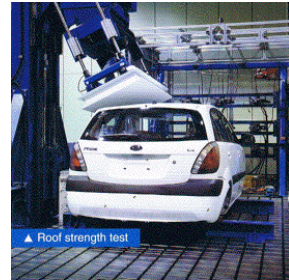
- Adjustments to scoring weights
- Neck injury assessment added
- Oblique side pole impact added
- Combined side impact protection rating
- Rollover propensity (fishhook) test retained but no occupant protection rating (discussed later)
- Crash avoidance safety feature rating added (but just for ESC, FCW & LDW)
- Rejected/postponed: frontal offset crash, lower speed full-frontal, higher speed full frontal, rollover protection, rear seat occupants, whiplash, frontal pole, pedestrian protection, compatibility...

6

6

Korean NCAP

- Michael Case & Michael Paine visited KATRI lab in Korea and discussed NCAP plans
- Pedestrian headform tests in 2008
- Whiplash rating in 2008
- Rollover propensity in 2008 (also set up to perform static roof strength test)
- Dynamic brake tests in 2008 (same as JNCAP)
- 64km/h offset test in 2009. Also looking at pedestrian legform tests
- 29km/h pole test in 2010
- Looking at rear seat occupants



7

7

Pole Tests - update

ANCAP has conducted these manufacturer-funded pole tests:

- Ford Falcon
- Holden Epica & Viva
- Mazda CX-7
- Mitsubishi Lancer
- Nissan Maxima
- The Subaru range
- Toyota Kluger (pending)



8

Rating of Variants

- Increased interest in the application of ANCAP ratings to other variants of a model (e.g fleets only buying 4 star cars or better)
- Currently under review - proposed that a small ANCAP/industry working group be formed to look at this issue
- Factors to consider:
 - Mass and mass distribution
 - Body style & structure
 - Front occupant restraint systems
 - Engine and transmission
 - Safety features

9

9

Rear seat occupants

- Research indicates attention should be given to adult and large child occupant protection in rear seats
- Transport Canada and JNCAP are doing research.
- One option is to place a small adult female dummy in the rear seat during the offset test - JNCAP 2009?



10

10

Occupant Protection in Rollovers

- ANCAP monitoring developments in the assessment of rollover protection
- An NCAP rating could also encourage relevant safety features such as:
 - Inflatable side curtains that deploy and remain in place during a rollover crash
 - Seat belt pretensioners that also deploy in rollover crashes
 - Improved glazing
 - Interior head impact protection

11

Occupant Protection in Rollovers

- Manufacturers conduct full scale rollover crash tests to develop and test these systems



Rollover Symposium in Sydney on 2 October

12

Whiplash Protection

- RCAR consortium has been conducting geometric and dynamic tests of car seats for several years
- ANCAP member NRMA Insurance publishes ratings based on RCAR procedures
- Euro NCAP has decided to introduce a whiplash rating based on extra dynamic tests
- ANCAP considering options

13

13



www.ancap.com.au

14