

# ANCAP Rating Roadmap - 2010-2015

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## World NCAPs



# ANCAP Crash Tests

Three types of crash test give a front occupant protection rating out of 5 stars

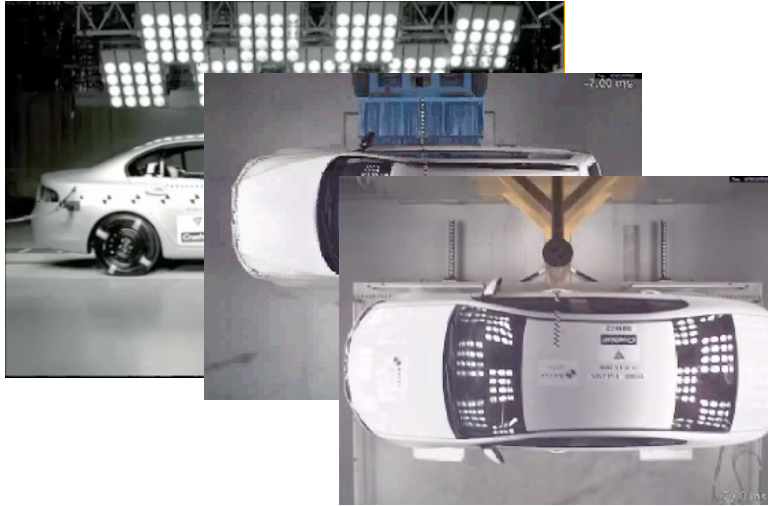
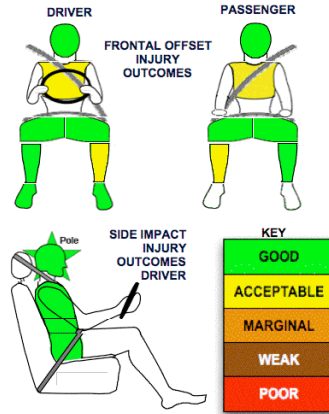


## Crash Test Results

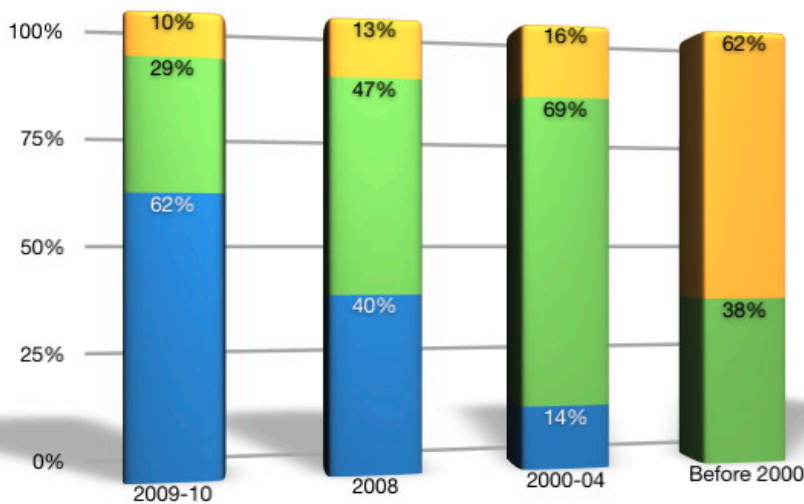
New Car Safety

**FORD FALCON FG SEDAN**

2008 on Front+side+head airbags



## ANCAP Trends - Vehicle Models

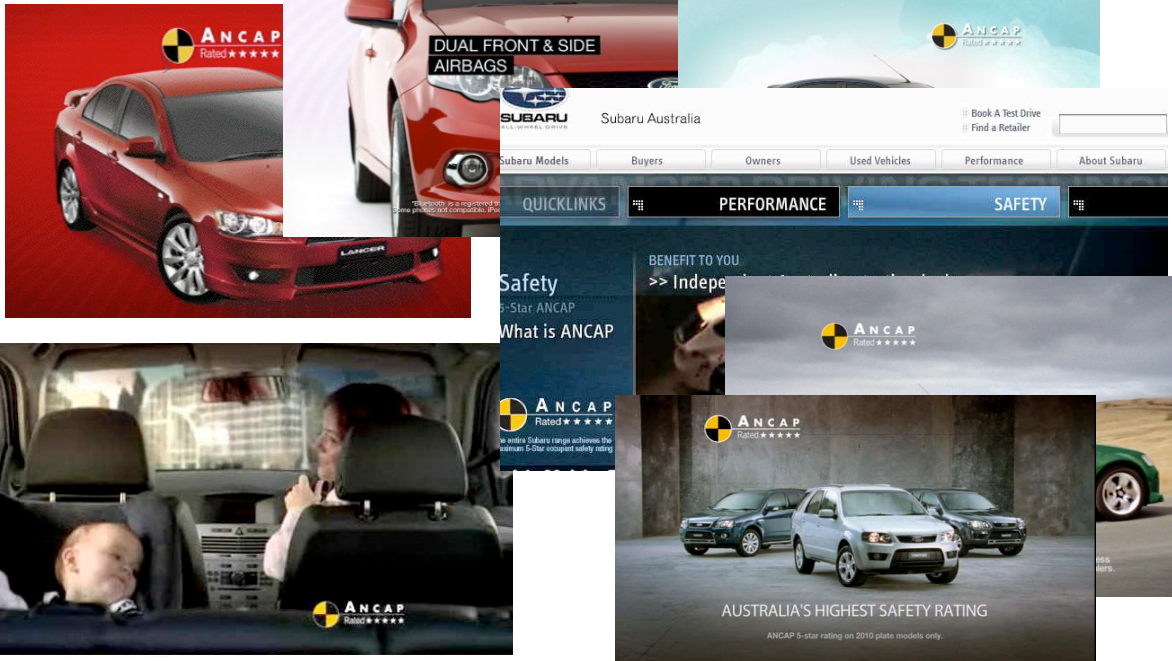


Year published by ANCAP

■ 5 Stars ■ 4 stars ■ 3 stars or less

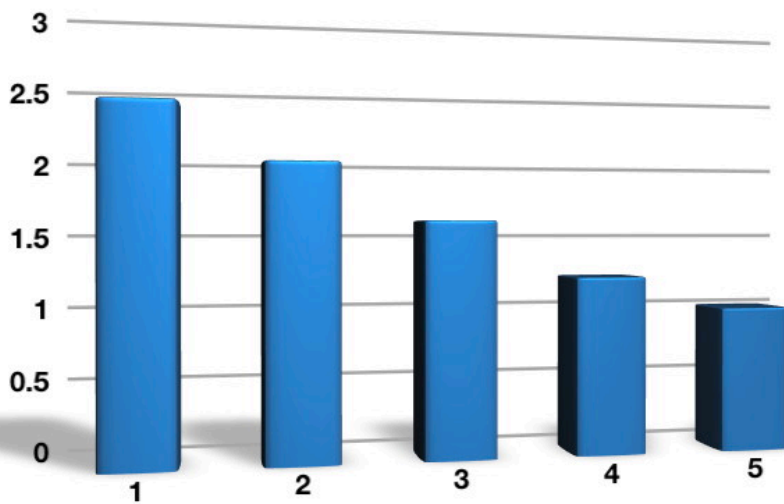


# ANCAP ratings now common in advertising



## Relative Risk of Serious Injury

Based on Australasian Used Car Safety Ratings



Star Rating



## Raising the bar



- In 2008 ANCAP became the first World NCAP to insist on ESC for a 5-star rating
- Encourage other priority safety features & improved safety performance
- Preferred method is to progressively add qualifiers for occupant protection star ratings
- Starts with extra qualifiers for 5 stars in 2011 with a 5 year rolling plan

## Business Case Analysis for Safety Features



- **Trauma reduction** - the potential savings in serious crashes (crashes influenced times effectiveness in those crashes)
- **Technical readiness** - whether the technology is ready for the market. Whether the market is already saturated.
- **Regulatory & organisational hurdles** - need for new regulations or standards. Need for administrative support

## Business Case Analysis (cont.)



- **Infrastructure and data needs** - need for up-to-date data systems or roadside infrastructure
- **Potential growth through government initiatives** - likely improvement in uptake of the feature due to NCAP initiatives (not auto marketing)
- **Costs** - Estimated cost of installation, taking in to account future economies of scale
- **User acceptance** - willingness to accept the technology (e.g. fleet demand)



## ANCAP Proposed Priority Safety Assist



- ESC (extend to lower star ratings)
- Emergency Brake Assist
- 3-point seat belts for all seats (including commercial vehicles)
- Seat belt reminders for all seats
- Daytime running lights (DRL)
- Intelligent Speed Assistance (ISA)
- Head-protecting side airbags
- Alcohol interlocks
- Top speed limiter (120km/h)



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# Proposed "Beyond NCAP" Safety Assist

Forward Collision Warning with braking (eg "City Safety")
Automatic Crash Notification (eg "On-star")
Pre-emptive Collision Preparation (eg "Pre-safe")
Forward Collision Warning
Adaptive Cruise Control
Lane Change Collision Warning
Fatigue Warning System
Driver-selected speed limiter
Lane Departure Warning
Tyre Pressure Monitoring
Electronic Data Recorder
Reversing Camera
Night Vision Enhancement
Driver-selected speed alarm

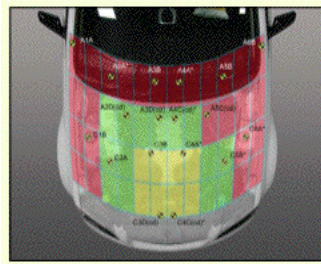
Plus others suggested by manufacturers

# Extra performance tests

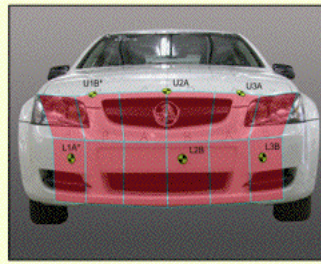
- Pedestrian protection
- Whiplash mitigation
- Roof strength
- Rear occupant protection?



# Pedestrian Protection Tests








Child and adult head impact



Adult leg impact (upper and full legforms)

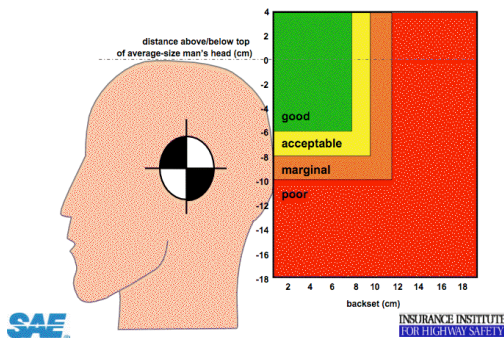
Change to test protocol during 2010.  
Descriptive rating being introduced to highlight the change

Score	Old star rating	New descriptive rating
27.5 or more	 <b>ANCAP</b> Rated ★ ★ ★ ★	Good
18.5 to 27.49	 <b>ANCAP</b> Rated ★ ★ ★ ★	Acceptable
9.5 to 18.49	 <b>ANCAP</b> Rated ★ ★ ★ ★	Marginal
0.5 to 9.49	 <b>ANCAP</b> Rated ★ ★ ★ ★	Poor
Less than 0.5	 <b>ANCAP</b> Rated ★ ★ ★ ★	Poor

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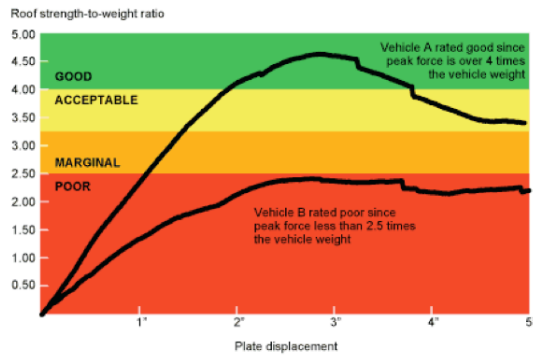
# Whiplash Mitigation

## Geometric seat and head restraint evaluations



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# Roof Crush Rating



Sample data comparing test results for vehicles rated good and poor



## Roof strength test results

**A** 2009 models

# Proposed 5 Star Qualifiers

$\Sigma$  Priority

$\Sigma$  Priority+Beyond

Year	Minimum Safety Assist (Priority) <sup>1, 2</sup>	Minimum Safety Assist (Total) <sup>1, 2</sup>	Minimum Pedestrian Rating <sup>3</sup>	Minimum Whiplash Rating	Minimum Roof Strength Rating
<b>Requirements for 5 Star Occupant Protection Rating</b>					
2004	At least 1 pt in pole test	-	-	-	-
2008	4	-	-	-	-
2011	8	10	-	-	-
2012	9	12	Marginal	Acceptable	-
2013	10	14	Marginal	Acceptable	-
2014	12	16	Acceptable	Good	Acceptable
2015	14	18	Acceptable	Good	Acceptable



Σ Priority

Σ Priority+Beyond



Crash testing for safety

AUSTRALASIAN  
NEW CAR ASSESSMENT  
PROGRAM

Year	Minimum Safety Assist Priority <sup>1, 2</sup>	Minimum Safety Assist (Total) <sup>1, 2</sup>	Minimum Pedestrian Rating <sup>3</sup>	Minimum Whiplash Rating	Minimum Roof Strength Rating
<b>Requirements for 4 Star Occupant Protection Rating</b>					
2012	4	6	-	-	-
2013	6	8	-	-	-
2014	8	10	Marginal	Acceptable	-
2015	10	12	Acceptable	Acceptable	-
<b>Requirements for 3 Star Occupant Protection Rating</b>					
2012	-	4	-	-	-
2013	4	6	-	-	-
2014	6	8	-	-	-
2015	8	10	-	-	-
<b>Requirements for 2 Star Occupant Protection Rating</b>					
2012	-	4	-	-	-
2013	-	4	-	-	-
2014	4	6	-	-	-
2015	6	8	-	-	-

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## Star Qualifiers



Crash testing for safety

AUSTRALASIAN  
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### Notes

1 ESC required and, from 2011, it must be standard *on rated variant* (optional ESC no longer acceptable).

2. Safety Assist scoring to be determined in consultation with auto industry

3 Vehicles with a seating reference height of 700mm or more may meet one grade less for pedestrian protection (e.g. "poor" instead of "marginal" and "marginal" instead of "acceptable")

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# Roadmap Benefits



- Encourages improvements in safety performance while retaining the current 5-star rating system that is recognised and accepted
- Allows manufacturers to substitute other recognised safety features in order to meet targets but retains timeline for priority features (i.e. they might be delayed few years on some vehicles but only where other safety improvements have taken place)
- Likely to be acceptable to the automotive industry, who will continue to advertise ANCAP ratings

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