

Safer Vehicles and Consumer Ratings

MALAYSIA - MAY 2012

Michael Paine - Technical Manager



NCAP History



1979



1992



1995

1997



1999



2010



2012



ANCAP Crash Tests

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

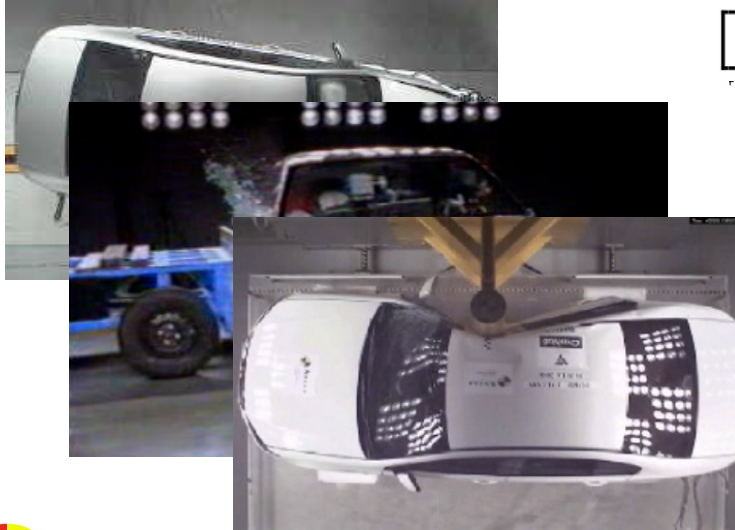
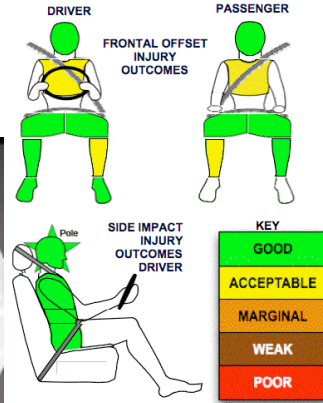


Crash Test Results

New Car Safety

FORD FALCON FG SEDAN

2008 on Front+side+head airbags



5-star vehicles are available in all categories



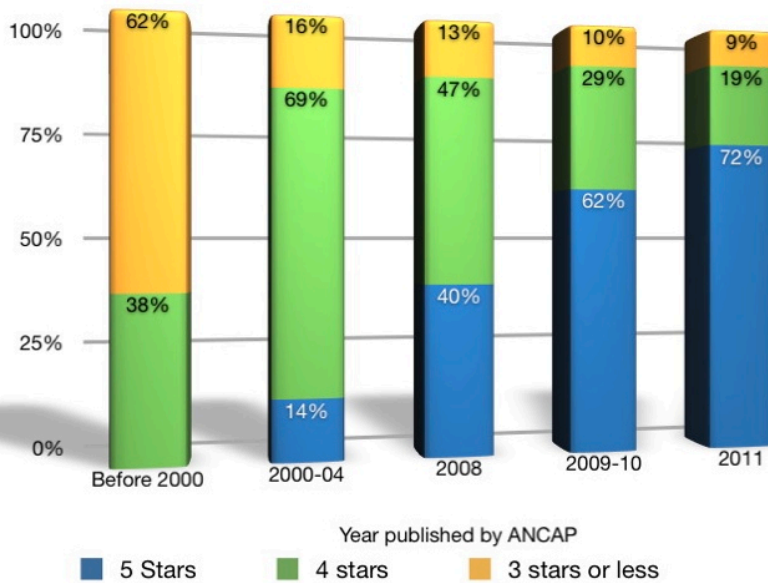
Cars

SUVs

Commercials

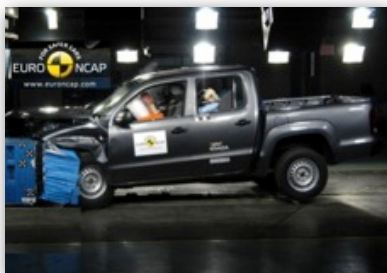


ANCAP Trends - Vehicle Models



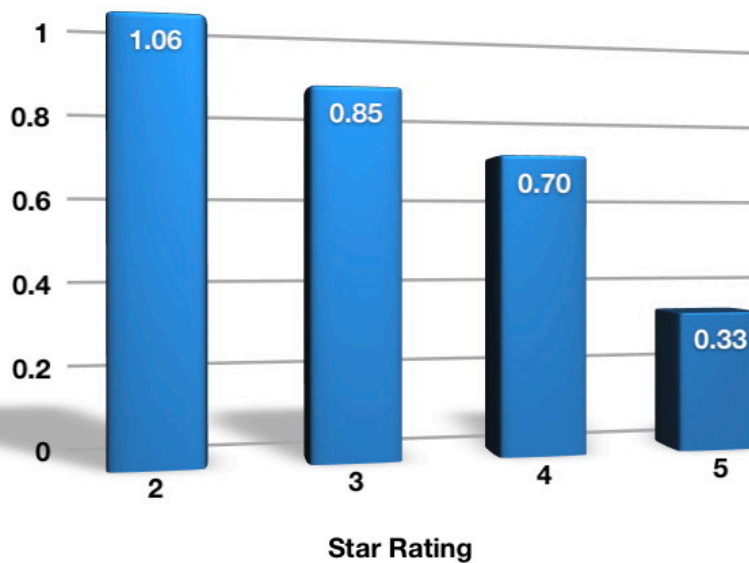
AUSTRALIAN GOVERNMENT FLEET PURCHASING POLICY

- From July 2011 all cars purchased by the Australian government must have a 5-star ANCAP rating and all light commercial vehicles must have at least a 4-star rating (no exemptions!)
- Australasia now has 5-star vehicles in all vehicle market segments including VW Amarok, Ford Ranger and Mazda BT50 pick-ups and Mercedes Vito van



Relative Risk of Fatal Injury

Based on Folksam 2010 (Europe)



"if all young drivers involved in crashes were driving the safest car available, rather than the cars they usually drove, the road fatality and serious injury rate could be reduced by more than 80 per cent." (MUARC 2009)

4 OUT OF 5 WOULD NOT HAVE DIED



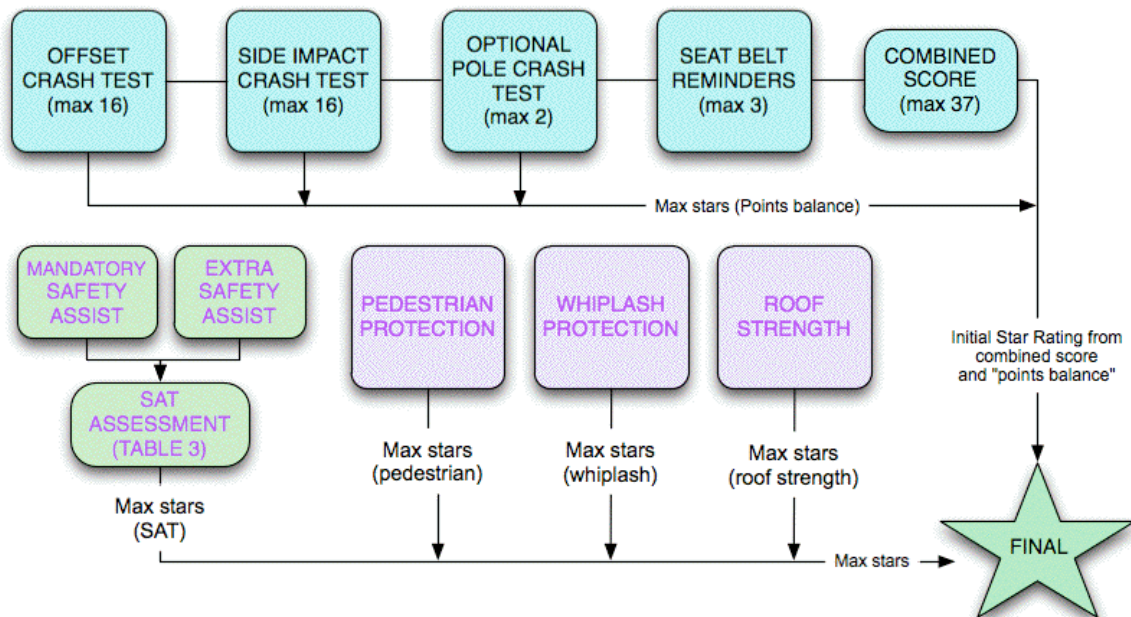
ANCAP ROAD MAP



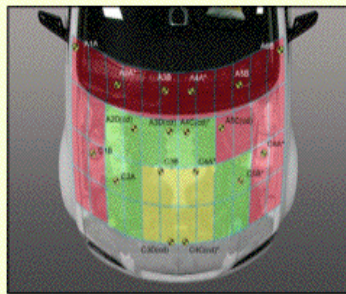
- Rolling 5 year plan
- Raises the bar for each star rating - including minimum requirements for pedestrian, whiplash & roof strength
- Encourages uptake of a wide range of *Safety Assist Technologies (SAT)* - both passive and active
- Developed in consultation with the auto industry, including annual reviews



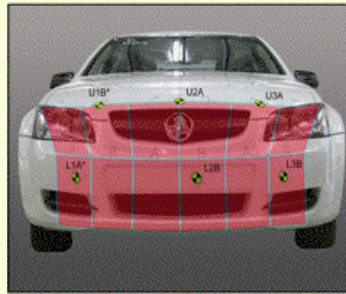
ANCAP ROAD MAP



Pedestrian Protection Tests



Child and adult head impact



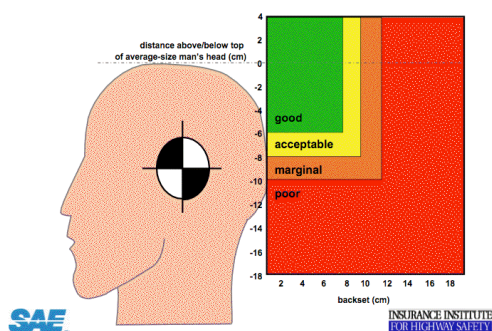
Adult leg impact (upper and full legforms)

Pedestrian Score	Descriptive rating
27.5 or more	Good
18.5 to 27.49	Acceptable
9.5 to 18.49	Marginal
9.49 or less	Poor

A result of at least “marginal” is required for an ANCAP 5-star safety rating from 2012 (some concessions).

Whiplash Protection

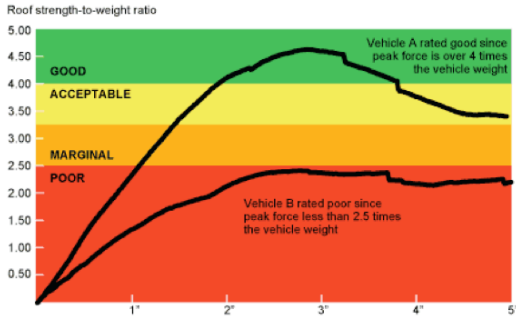
Geometric seat and head restraint evaluations



ANCAP member NRMA Insurance already rates whiplash protection for Australian vehicles using the IIWPG (RCAR) protocol. A result of at least “acceptable” required for an ANCAP 5-star rating from 2012.

Roof Strength Rating

Australia has a similar rollover problem to the USA. IIHS roof strength rating is being introduced



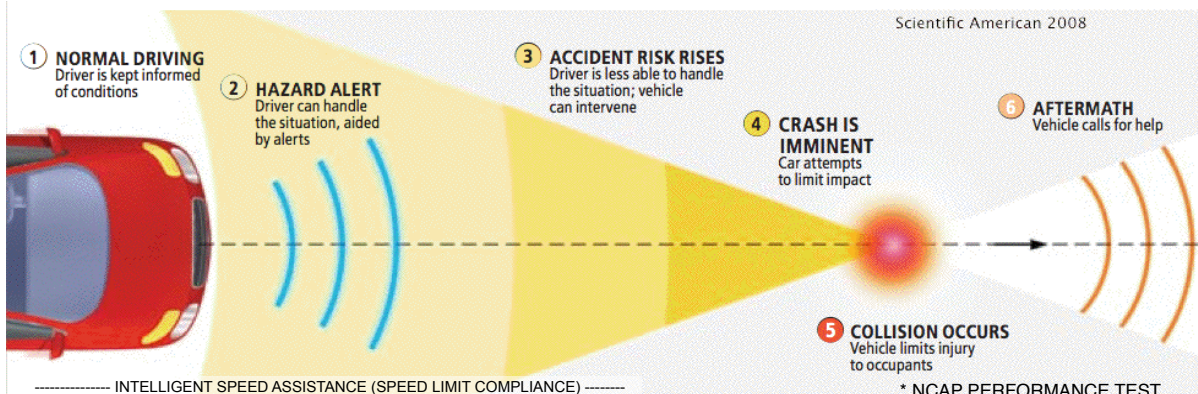
Roof strength test results *good and poor*
A 2009 models

A result of at least “marginal” (SWR ≥ 2.5) required for an ANCAP 5-star rating from 2014.



EXAMPLES OF SAFETY ASSIST TECHNOLOGIES (SAT)

Each counts as 1 SAT if standard, 0.5 SAT if optional



DAYTIME RUNNING LIGHTS	PEDESTRIAN WARNING	E STABILITY CONTROL	AIRBAGS*
FATIGUE WARNING	LANE WARNING	BRAKE ASSIST	PRETENSIONERS*
ALCOHOL INTERLOCK	FOLLOW DIST WARNING	E BRK DIST	PEDESTRIAN PROT*
ADAPTIVE FRONT LIGHTS	BLIND SPOT WARNING	PRE-SAFE	WHIPLASH*
TYRE PRESSURE MONITORING	REVERSING ASSIST	AUTO BRAKING	SEAT BELT REMINDERS
ADAPTIVE CRUISE CONTROL			3-POINT SEAT BELTS
NIGHT VISION			ROOF STRENGTH*
			AUTO EMERGENCY CALL
			RESCUEABILITY*
			FUEL SYSTEM*



Example:



12.5 pt or more in offset & side impact
1pt or more in pole test, 32.5 or more overall plus...

Year	"Mandatory SAT" ¹	Minimum number of "Additional SAT" items ²	Minimum Pedestrian Rating *	Minimum Whiplash Rating	Minimum Roof Strength Rating
5 Stars					
2011	ESC, 3PSB, HPT front seats	-	-	-	-
2012	"	2	Marginal	Acceptable	-
2013	2012 + SBR front seats, EBA	3	Marginal	Acceptable	-
2014	2013 + HPT 2nd row seats	4	Acceptable	Good	Marginal SWR >= 2.5
2015	2014 + SBR 2nd row fixed seats	5	Acceptable	Good	Marginal SWR >= 2.5

* High seat vehicles - marginal pedestrian protection from 2014

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INTERNATIONAL ACTIVITIES



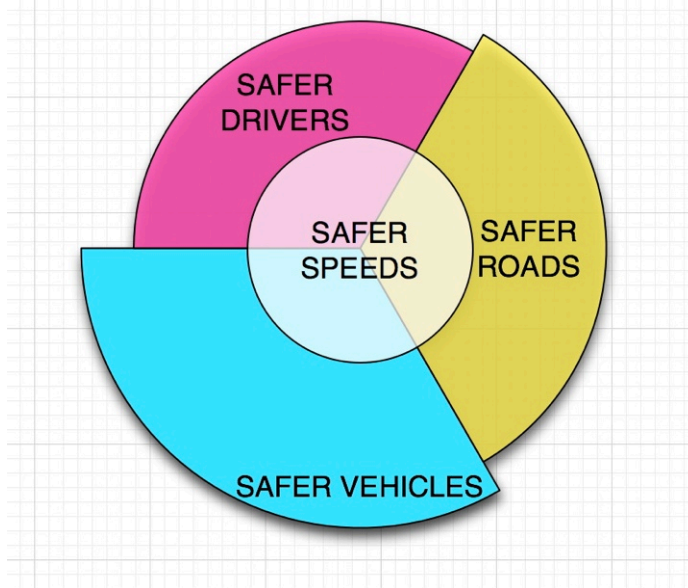
- Japan - 2010: ANCAP crash test of Mitsubishi i-MiEV conducted at JARI in conjunction with a joint NCAP meeting.
- Australia - 2010: MIROS visitors observe ANCAP crash tests and discuss protocols
- Malaysia - 2011: ANCAP representatives attend ASEAN NCAP meeting
- Australia - 2012: ASEAN NCAP meeting & crash test



POTENTIAL BENEFITS



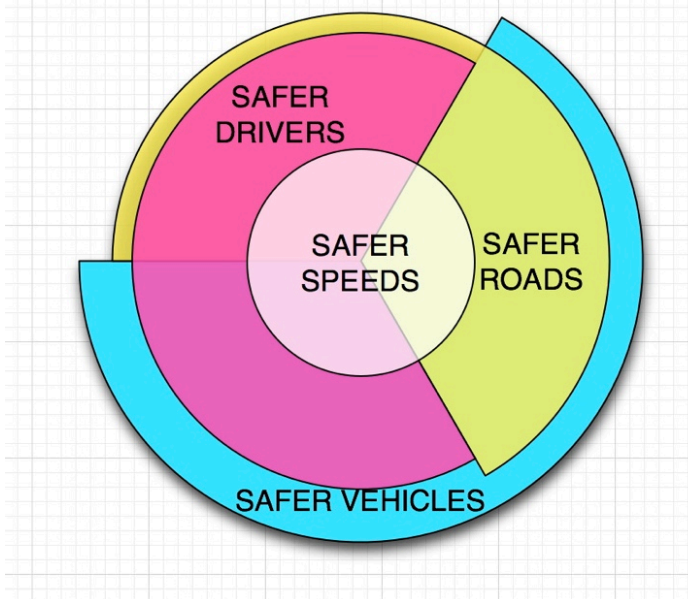
SAFE SYSTEMS APPROACH



POTENTIAL BENEFITS



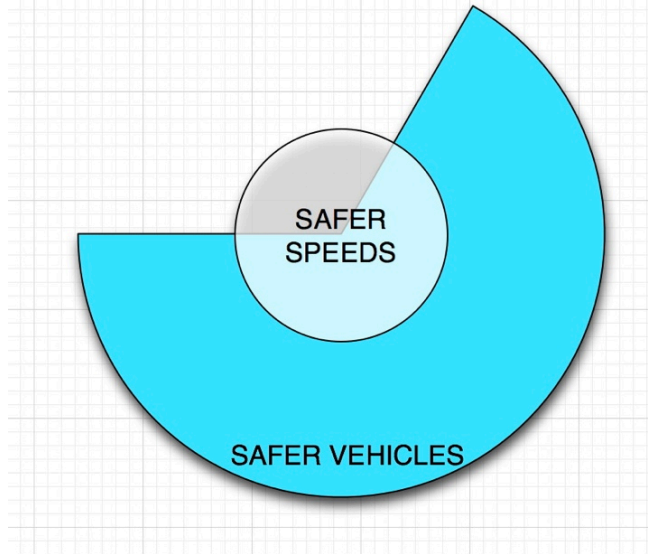
CONSIDERABLE OVERLAP



POTENTIAL BENEFITS



SAFER VEHICLES COULD PREVENT ABOUT 2/3RDS OF SERIOUS/FATAL CASUALTIES

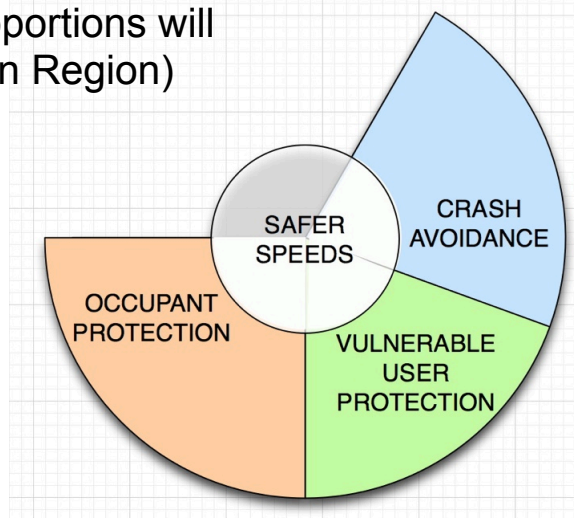


POTENTIAL BENEFITS



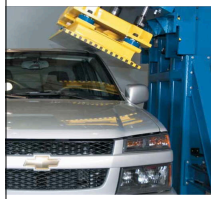
TYPES OF VEHICLE COUNTERMEASURES

(Actual proportions will depend on Region)



POTENTIAL BENEFITS

COMPONENTS OF THE ANCAP ROAD MAP



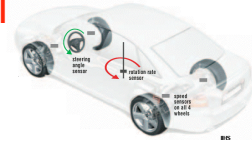
ROOF STRENGTH RATING



SAFER SPEEDS



SAT



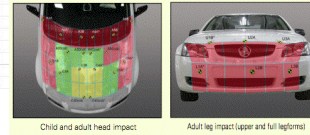
WHIPLASH RATING



OCCUPANT PROTECTION

VULNERABLE USER PROTECTION

PEDESTRIAN RATING



CRASH TEST RATING



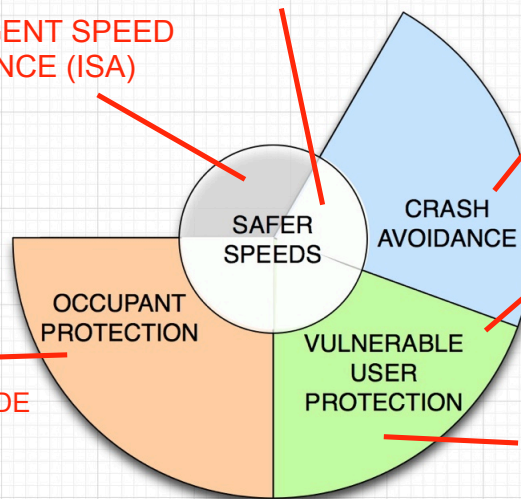
RECOMMENDED PRIORITIES FOR SAFER VEHICLES



BLACK BOX RECORDER (e.g. PAY-HOW-YOU-DRIVE-INSURANCE)

INTELLIGENT SPEED ASSISTANCE (ISA)

- DUAL FRONT AIRBAGS
- GOOD OFFSET TEST
- PERFORMANCE SEAT BELT REMINDERS
- HEAD-PROTECTING SIDE AIRBAGS
- 3-POINT SEAT BELTS FOR ALL SEATS
- STRONG ROOF



- ABS & ELECTRONIC STABILITY CONTROL
- EMERGENCY BRAKE ASSIST & ELECTRONIC BRAKE DISTRIBUTION
- AUTONOMOUS EMERGENCY BRAKING (AEB)
- DAYTIME RUNNING LIGHTS

GOOD PEDESTRIAN PROTECTION



Thank you



Thank you

