



Safer Cars for ASEAN Region

ASEAN NCAP Passive Safety Group Discussion

MIROS
18th September 2017



FIA Foundation
for the Automobile and Society



GLOBAL NCAP



AUTOMOBILE ASSOCIATION
OF SINGAPORE



☒ 2017 – 2020 Assessment Approach

☐ Adult Occupant Protection

☐ Child Occupant Protection



2017 - 2020

Adult Occupant
Protection

50%

Child Occupant
Protection

25%

2017 - 2020 ASEAN NCAP Rating



Max. Score (1)

Normalized Score (2)

Weighing (3)

Weighted Score

AOP		COP		Safety Assist*	
ODB	16	Dynamic Assessment Frontal	16	Effective Braking & Avoidance	8
SIDE	16	Dynamic Assessment Side	8	Seatbelt Reminders	6
HPT Evaluation*	4	Installation of CRS	12	Blind Spot Technology	2
		Vehicle Based Assessment	13	Advanced SATs	2
	36		49		18
actual score / (1)		actual score / (1)		actual score / (1)	
50%		25%		25%	
(2) x (3)		(2) x (3)		(2) x (3)	

2017-2020
**ASEAN
NCAP
RATING**

Overall Score

Total

Min. Overall Score

Rating	minimum: normalised (2) / actual score by box for the respective star rating						
5-Star	75%	27.0	75%	36.75	60%	10.80	75%
4-Star	65%	23.4	60%	29.40	50%	9.00	65%
3-Star	45%	16.2	30%	14.70	40%	7.20	50%
2-Star	30%	10.8	25%	12.25	20%	3.60	40%
1-Star	20%	7.20	15%	7.35	10%	1.80	30%

* Apply FRS

- ☐ 2017 – 2020 Assessment Approach
- ☒ Adult Occupant Protection
- ☐ Child Occupant Protection



Adult Occupant Protection

Frontal Impact (16 Point)

- Current Approach
 - ODB 64 Km/h
 - Front Passenger (Hybrid III 50th %ile)
 - Rear Passenger (Q 1.5 and Q 3)
- New Ideas/Suggestion/Proposal
 - Maintain ???
 - Different crash test variation (Full frontal /or others)
 - Different Dummy Set up
 - Driver Right Leg on Brake pedal (???)
 - Different Dummies arrangement
 - 5th %ile- Front Passenger
 - Advance Dummy -THOR
 - Others



Adult Occupant Protection

Side Impact(16 Point)

- Current Approach
 - 50 Km/h
 - Front Passenger (ES2 50th %ile)
 - Rear Passenger (Q 1.5 and Q 3)
 - Side MDB
- New Ideas/Suggestion/Proposal
 - Maintain ???
 - Different crash test variation (Oblique/or others)
 - Different Dummy Set up
 - Driver Right Leg on Brake pedal (???)
 - Different Dummies arrangement
 - 5th %ile- Front Passenger
 - Advance Dummy -THOR
 - AE MDB
 - Others



Head Protection(16 Point)

- Current Approach
 - HPT Evaluation
 - Fitment Rating Sistem
 - Coverage Area
- New Ideas/Suggestion/Proposal
 - Maintain ???
 - Different crash test variation (Pole)
 - Different Dummy Set up
 - Others



- ☐ 2017 – 2020 Assessment Approach
- ☐ Adult Occupant Protection
- ☒ Child Occupant Protection



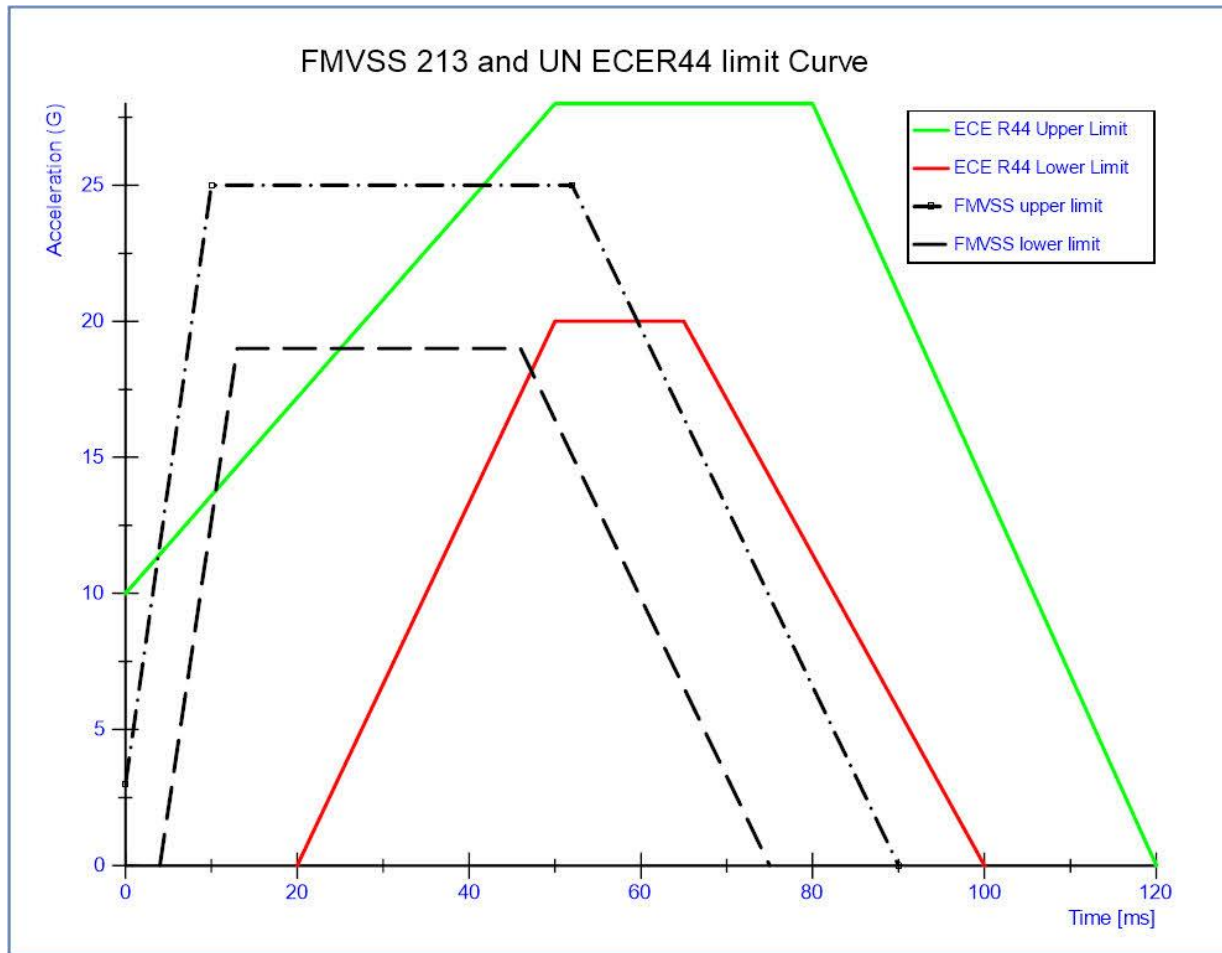
Child Occupant Protection

Child Occupant Performance									
Current Protocol (Single Rating)				New Protocol (25% of Overall rating)					
Dynamic Assessment (24 Points)				Dynamic Assessment (24 Points)					
Frontal Impact	P series dummy	P1.5	P3	Frontal Impact	Q series dummy	Q1.5	Q3		
		Head	3			6	Head	4	4
		Chest	6			6	Chest	2	2
		Neck	3				Neck	2	2
	Side Impact				Head	4	4		
CRS Based Assessment (12 Points)				Installation assessment (12 Points)					
CRS Marking		4 points per CRS		References List Assessment		10 points			
CRS to Vehicle Interface		2 points per CRS		OEM Assessment		2 points			
Vehicle based assessment (13 Points)				Vehicle based assessment (13 Points)					
Use of CRS on the Front Seats		5 points		Provision of Three-point Seat Belts		1 point			
Provision of Three-Points Seat Belts		1 point		Gabarit Installation		2 points			
Gabarit Assessment		2 points		2 Simultaneous Use Seating Positions		2 points			
ISOFIX		3 points		ISOFIX Usability		2 points			
Integrated CRS		2 points		Two or more Largest ISOFIX Positions		1 points			
				Passenger Airbag Warning Marking and Disabling					
				5 points					

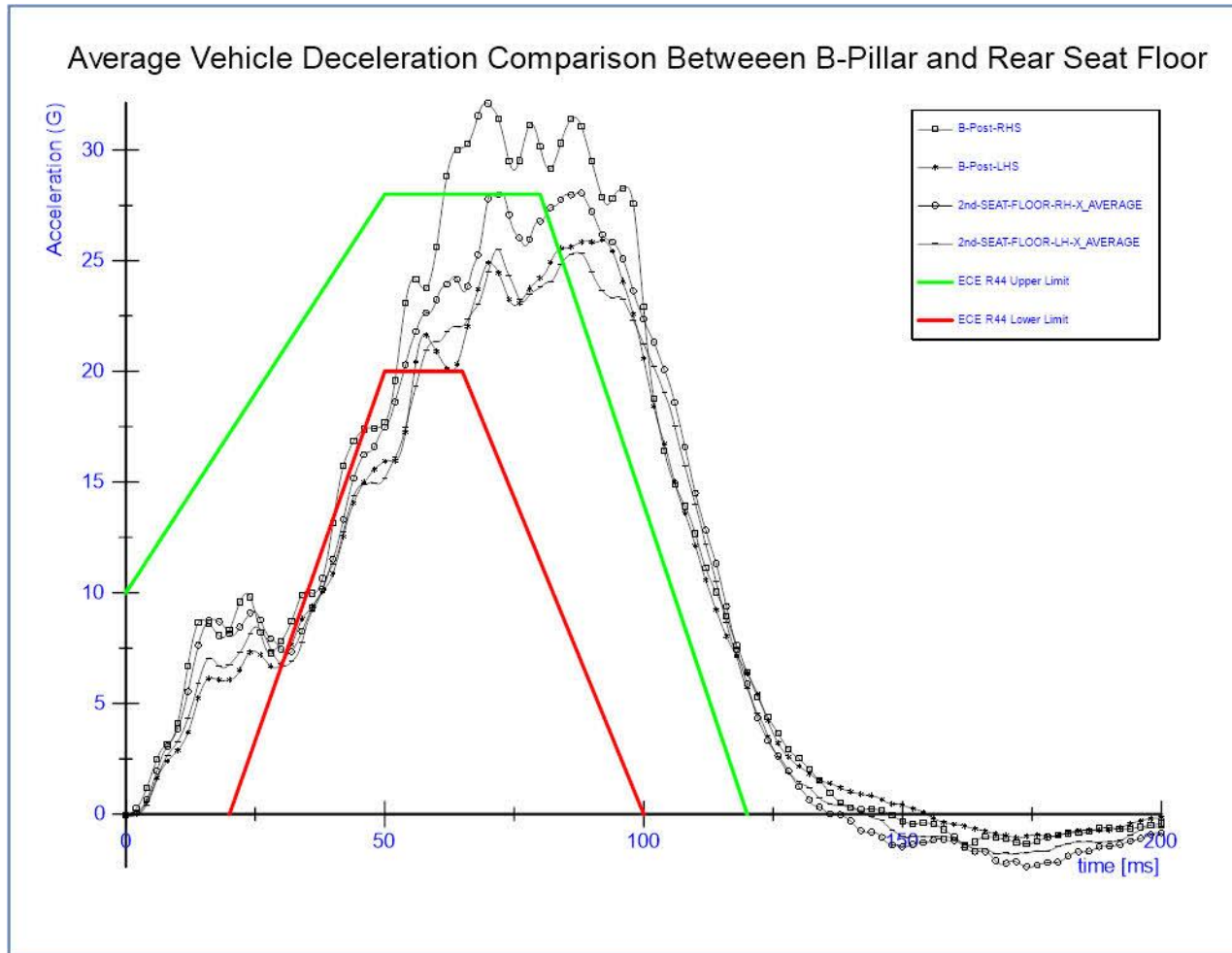
CRS Pulse Study

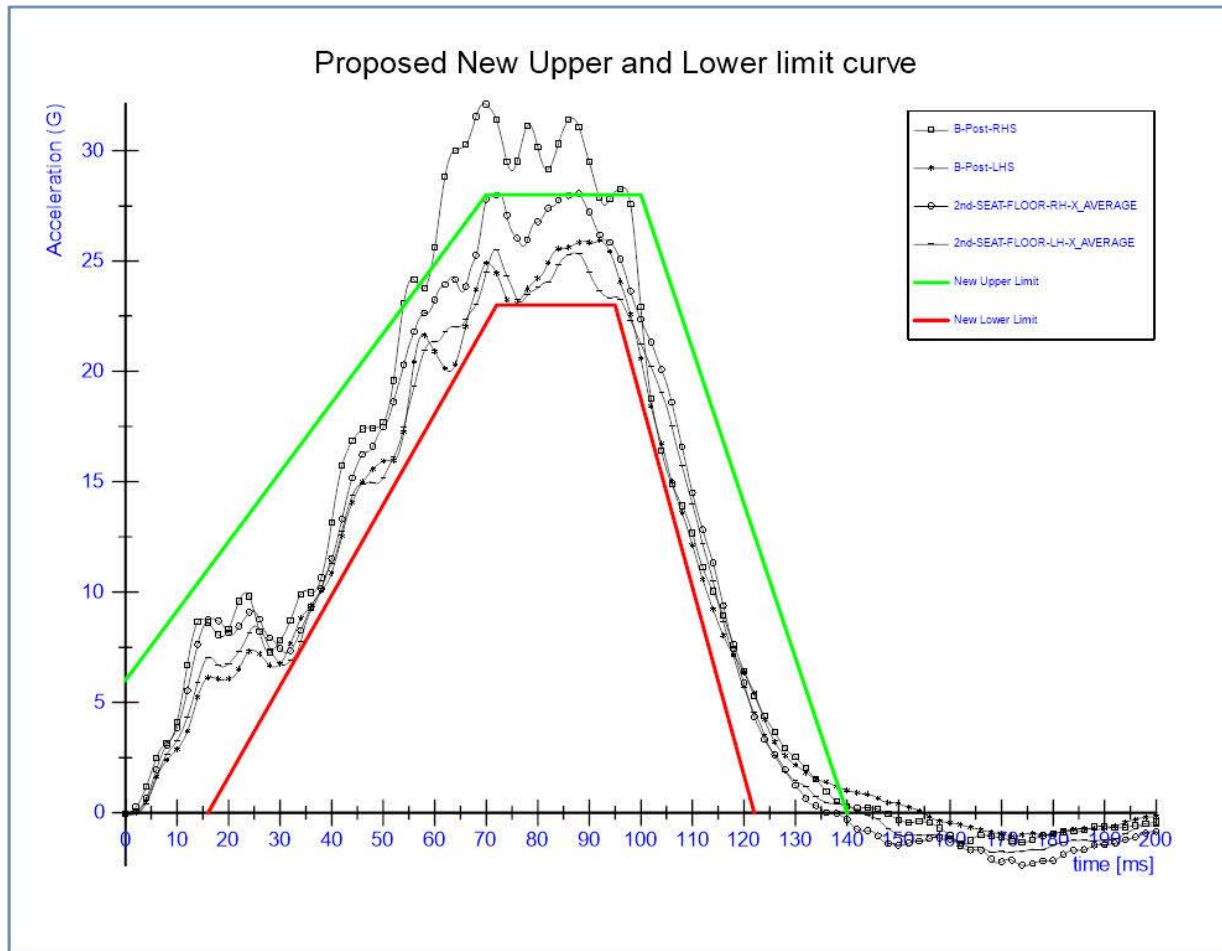


UN ECE R44 Vs FMVSS 213



Average Overall





- Any others proposal
 - Pedestrian ???



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