OICA Proposal for a Rev. 4 of Document TF-DPPS/2/03 **IWG-DPPS/2/06**

Requirements Overview Deployable Pedestrian Protection Systems

TF-DPPS/2/03-Rev.34 colored box means new or modified O= Yes, X= No 14.06.2018

	Item No.	Items	Euro NCAP	JNCAP	KNCAP	OICA proposal	Current gtr No. 9/UN R127 or currently practiced in certification testing	Remarks	Discussion needed	Decision
Prerequisite	1	System Information Requirement (provided by manufacturers)	O	O	O	O	O	Different information provided today, extent of information to be agreed on (proposal from Korea available, to be aligned with other contracting parties)	IWG	
	2	Simulation Human Models or Physical Test Human dummies (tool for HIT)	O	O	O	O	O	Different information provided today, extend of information to be agreed	x (Subgroup)	In November 2017, TF agreed to use the simulation at this moment to get the necessary information (as HIT). Currently no alternative available.
	3	Simulation/Alternative Means Requirement (for HIT)	O	O	O	O	O	posture, position, friction to ground, to be discussed, 40km/h was preferred by the TF	Subgroup	
	4		speed: 45km/h	speed: 40km/h	speed: 40km/h	speed: 40km/h	speed: 40 km/h		Subgroup	
	5	HIT Information	O	O	O	O	O	HIT & WAD graph (best regression linear line (?))	Subgroup	
	6	Protection at speed below the deployment threshold	O	O	x	x	x	Concept agreed Nov. 2017: HIC needed at LTS: current criteria to be used (HIC, 1/3 and 2/3 areas) - if lower threshold is e.g. 25km/h, then test at head impact speed = 0,9*V on the undeployed hood	Subgroup	
	7	Protection at higher impact speeds	O	x	x	x	x	Proposal was to show initiation to at least 50km/h ***June 2018, outcome SG: Benefit of this requirement for a deployment above 40km/h is not seen, when no further requirements are given, deployment might even be counterproductive***	Subgroup	
	8	Bonnet deflection due to body loading	O	x	△ (deployed simulation only)	x	x	Undeployed simulation, deployed simulation, displacement by body loading	IWG (SG?)	
	9	Bonnet deflection clearance (BASt)	x	x	x	x	x	BASt, Germany, only stakeholder in favor	IWG (SG?)	
	10	TRT Test (speed of HIT)	x	O	O	O	O	impactor, location, number of tests 2 additional topics: 1. TRT measurement at center always required? 2. sensor system reaction time check of worst case.	x (Subgroup)	November 2017: Center location for physical test of measured Sensor Time, but other one may be chosen if center is not worst case. Same speed as during HIT determination. Current legform impactor as in current regulation
	11			center and outmost point of deployed head test area	location: by agency (in bumper test area)	Center	Center		Subgroup	
	12			number of tests: 2	number of tests: min. 1	number of tests: 1	number of tests: 1		Subgroup	
	13		O	x	O	x	x	November 2017: Low threshold test with "as intended min. speed", with some "feasible"	Subgroup	

Verification	14	Lower Threshold Deployment Test	location: particular locations in bumper test area	center and outmost point of deployed head test area (manufacturer to provide)	location: by agency (in bumper test area)			intended min. speed " with some "feasible tolerance. [-0/+ 2km/h]. Add the sentence "if the test was performed with lower speed as the threshold, then the test is deemed compliant if the system was triggered. It should be independent speed measurement (GPS or laser indicator, not the instrument cluster odometer)." Same tolerance for TRT test. Tolerance for location: [+/- 50mm] of the driving test. Check feasibility. Number of tests to be discussed, locations and minimum distance discussed, ***June 2018, outcome SG: minimum of three tests (one in each third of the bumper test area) with a minimum distance of [50mm or half of impactor width]***	Subgroup	
	15		number of tests: min. 3		number of tests: min. 2				Subgroup	
	16	Static Head Test at undeployed position at Lower Threshold Speed	O	O	x	x	x		x (Subgroup)	November 2017: head form impact speed 0,9*velocity of LTS
	17		number of tests: max. 3	number of tests: max. 3				Number of tests to be discussed ***June 2018, outcome SG: 3 test, one in each third***	Subgroup	
	18	High Threshold Test (initiation of deployable bonnet beyond 40 km/h)	O	x	O	x	x	deployment check, impact speed	Subgroup	
	19		location: particular locations in bumper test area		location: by agency (in bumper test area)				Subgroup	
	20		velocity min. 50 km/h		max. speed specified by manufacturer				Subgroup	
	21		number of tests: 1		number of tests: max. 2				Subgroup	
Headform Test	22	Static Test at the undeployed position (if prerequisites are not met)	O	O	O	x	x	Only if a system is not stated to be required for compliance by the OEM, also refer to decision tree/flow chart (to be created)	IWG	
	23	Static Test at the deployed position	O	O	O	O	O	aiming method, ~~speed measurement,~~ marking position	x	To be included
	24	Dynamic Test	O	O	O	O	O	Synchronization procedure/ requirement, accuracy check	x	To be included
	25	Combined Test	O	O	O	O	x	Flow Chart for decision available: DPPS-4-04e.pdf (OICA) Static and Dynamic Testing of Deployable Systems	x	To be included