

Q-Dummy Behaviours following used types of pulses

Informel Group on CRS

BASt

21/01/09

We performed 4 tests with two Q3 to test reproducibility and repeatability on dummies.

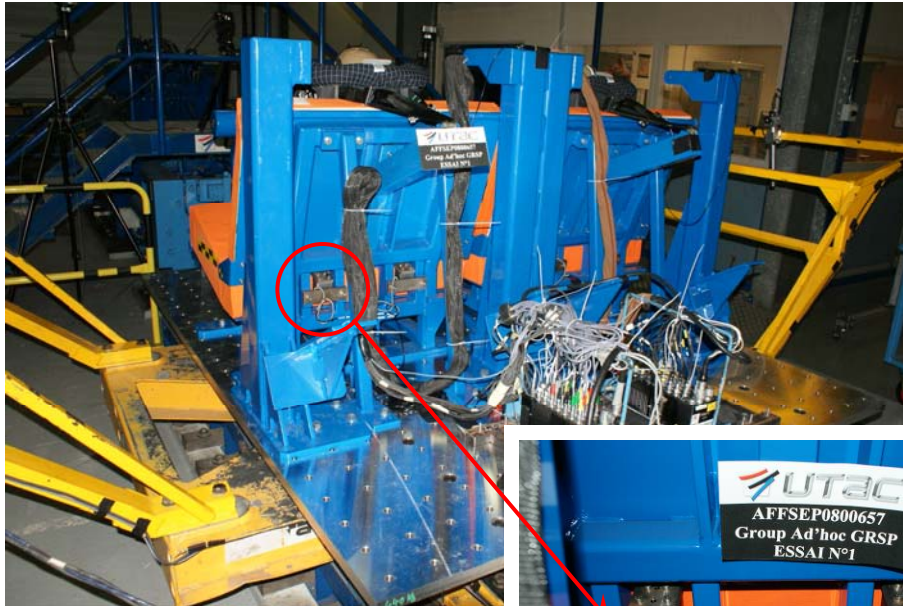
2 tests are performed with standard ECE.R44 curve

2 tests are performed with an average curve calculated from ECE.R94 curves



8 Romer Duo Isofix, with top tether, are used for our tests.

CRS are tested two by two (for the reproducibility aspect).



We used specific sensors to measure forces on ISOFIX anchorages (3-axis sensors).

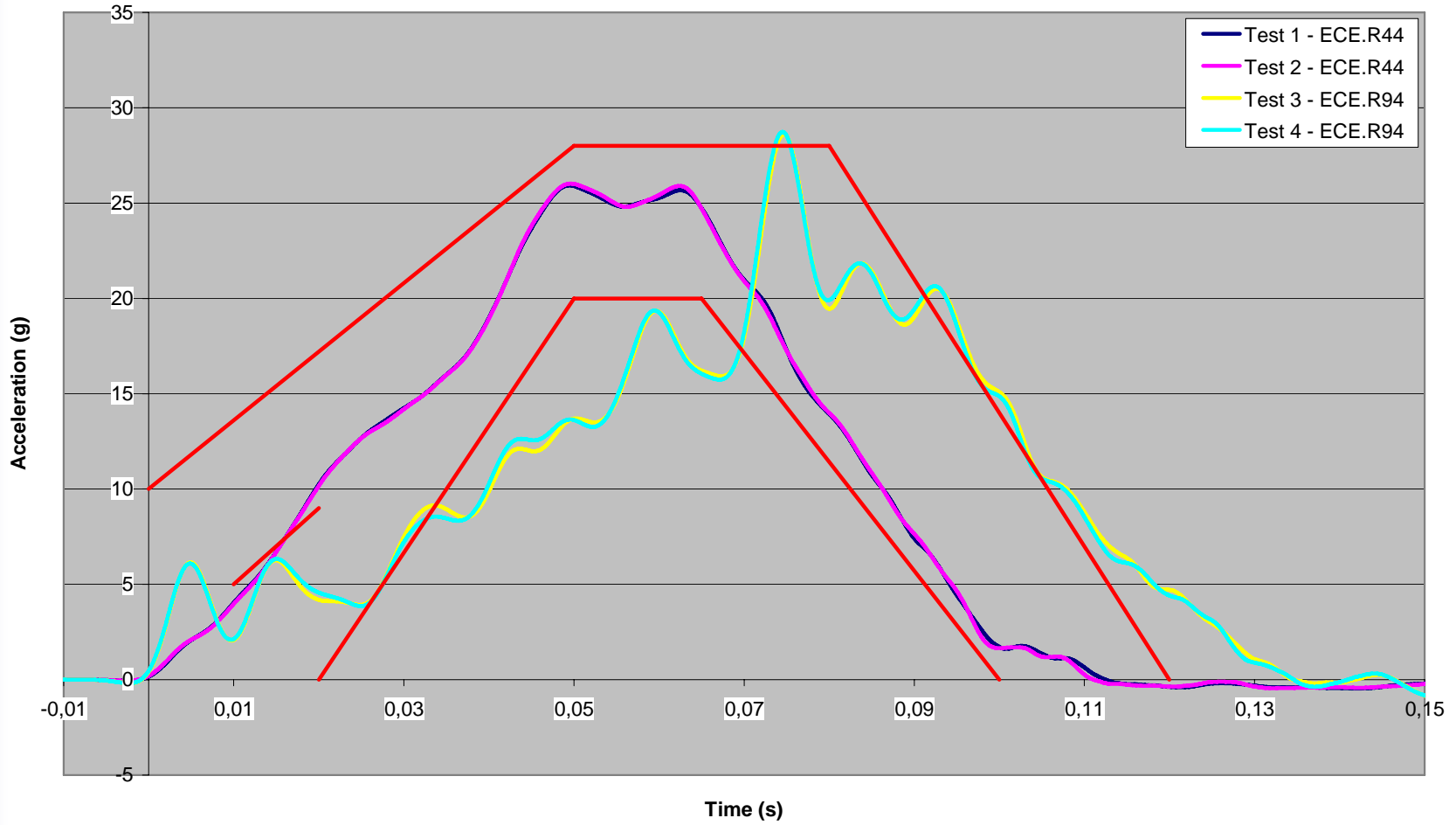


We measured on Q-dummies:

- Head/Chest/Pelvis accelerations
- Upper Neck/Lower Neck/Lumbar spine Forces and Moments
- Chest displacement



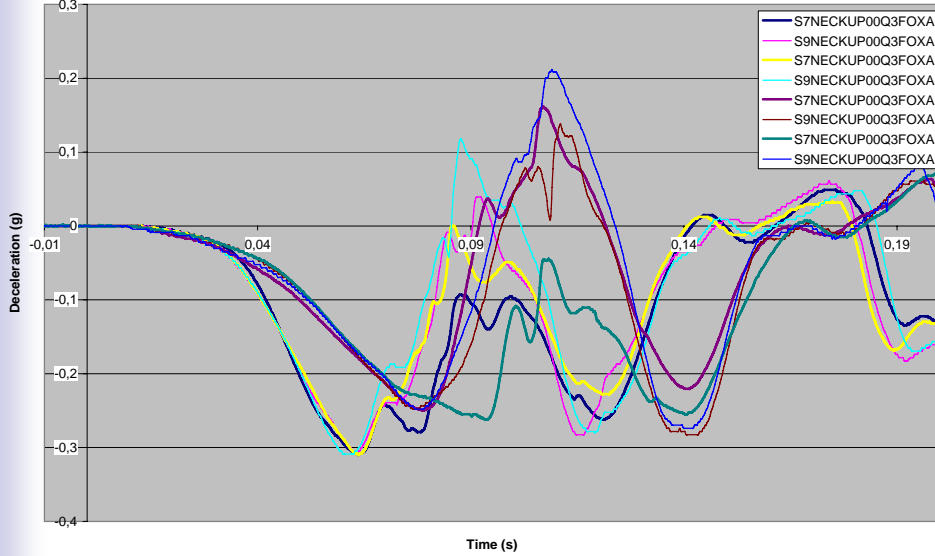
Sled Acceleration



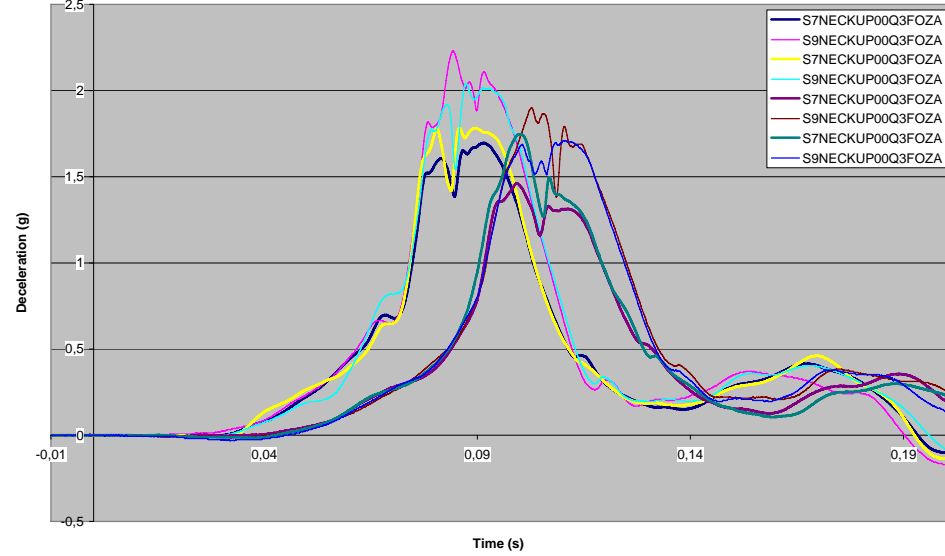
Upper Neck results



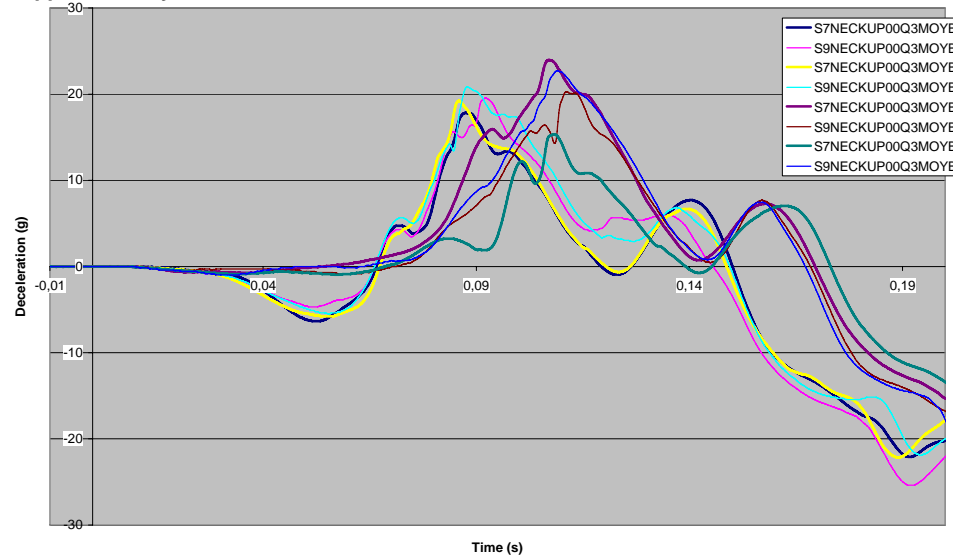
Upper Neck Fx



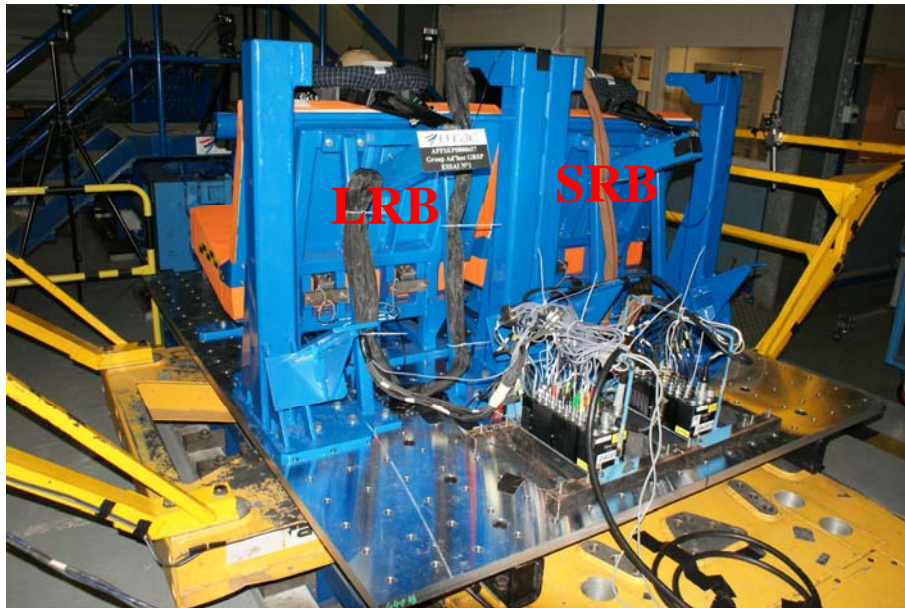
Upper Neck Fz



Upper Neck My



Loads measured in RIGID Isofix Anchorages



One of the four sensor gave Strange value, regarding the Global result. Sensor is investigated By SIXAXES (the supplier)

		S7SEBALE00 S7SEBALE00 S7SEBALE0000FOZP				
		Fx	Fy	Fz	Resultant	
R44 pulse	Test 1	LRB - Left Anchorage	81,0	13,1	-130,7	150,2
		LRB - Right Anchorage	262,4	20,6	-120,2	289,0
		SRB - Left Anchorage	61,7	25,6	-132,4	140,9
		SRB - Right Anchorage	65,6	15,6	-116,9	119,4
	Test 2	LRB - Left Anchorage	78,4	12,6	-110,7	134,5
		LRB - Right Anchorage	262,2	16,0	-104,4	281,5
		SRB - Left Anchorage	64,3	30,1	-120,4	131,0
		SRB - Right Anchorage	72,2	28,0	-107,4	113,4
R94 pulse	Test 3	LRB - Left Anchorage	60,2	12,0	-100,0	107,8
		LRB - Right Anchorage	198,7	18,4	-80,5	214,2
		SRB - Left Anchorage	51,4	15,7	-103,5	113,2
		SRB - Right Anchorage	37,8	19,0	-82,6	87,7
	Test 4	LRB - Left Anchorage	71,9	15,3	-98,1	112,6
		LRB - Right Anchorage	211,7	16,1	-86,3	228,5
		SRB - Left Anchorage	54,5	26,9	-87,5	99,1
		SRB - Right Anchorage	45,1	13,3	-82,7	86,2

Complementary tests to evolve all possible configurations :

- With a FDB pulse (EuroNCAP type)
- With a Full width pulse (USNCAP type)

Same tests (pulses) with CRS equipped with support legform
(if possible, UTAC requests CRS from suppliers)