SCT Analysis Comparisons

Model Details		Max. Force on Interlinks			Max. Force at Forwards			Max. disp. in SCT Structure		
Bend Direction	Load Case	FX (N)	FY (N)	FZ (N)	FX (N)	FY (N)	FZ (N)	dr (um)	dphi (um)	dZ (um)
Y	dyA = dyC = 2 mm	0	57	1	1	55	2	-8	-2	0
Y	dyA = 2 mm	1	146	3	1	55	2	-15	-4	7
Y	Allowable		?			?		600	120	300
X	dxA = dxC = 2 mm	61	2	56	57	3	68	11	13	-6
X	dxA = 2 mm	123	12	32	54	3	64	17	23	-13
X	dxC = 2 mm	130	10	88	57	4	69	16	23	-16
X	Allowable	?		?	?		?	600	120	300
G	gravity	2	207	1	0	10	0	77	16	-4

NOTES: Maximum forces shown for any given load case do not necessarily occur simultaneously on one interlink or at one forward location; these are component maximum absolute values. Force results come from PST model alone, constrained with flexures at all mount locations. One mount provides Z constraint at barrel, on C side. Displacement results come from integrated PST/SCT model, where PST to SCT constraint is made with identical flexure scheme. Stability requirements are based on SCT displacements. The stability required numbers shown are for displacement of the SCT shells under load conditions of the PST shown above.