## NASA Wallops Flight Facility P-3 Orion Rack Tip Over Analysis Worksheet

Mission:	IMPACTS - 20			2022	Date:	15 Sept. 2022
Experimenter:	David Del			ene	Rack Type:	DOUBLE RACK
Rack Location: FS			Left		Rack S/N:	
			Right			

RIGHT SIDE BAY						
Weight (LB)	MOMENT ARM (IN)**	MOMENT (IN * LBS)				
15.6	10.0	156.0				
36.8	17.0	625.6				
21.6	23.0	496.8				
13.4	26.5	355.1				
8.0	29.5	236.0				
5.8	32.5	188.5				
26.0	35.0	910.0				
7.2	51.5	370.8				
		0.0				
		0.0				
134 LB	TOTALS:	3339 IN-LB				
Within Limit		Within Limit				
	Weight (LB) 15.6 36.8 21.6 13.4 8.0 5.8 26.0 7.2 134 LB	Weight (LB) MOMENT ARM (IN)**   15.6 10.0   36.8 17.0   21.6 23.0   13.4 26.5   8.0 29.5   5.8 32.5   26.0 35.0   7.2 51.5   Within Limit				

Limit is 490 LBS

Limit is 13720 IN-LBS

LEFT SIDE BAY							
ITEM	Weight (LB)	MOMENT ARM (IN)**	MOMENT (IN * LBS)				
Uninterrupted Power Source	15.6	17.5	273.0				
M300 Data Acquistion System	36.0	23.0	828.0				
Analog to Digital Board	8.5	28.0	238.0				
Retractable Monitor / KVM	28.0	31.0	868.0				
2D-S Computer / King Control Module	10.2	47.0					
			0.0				
			0.0				
TOTALS:	98 LB	TOTALS:	2686 IN-LB				
	Within Limit		Within Limit				
	Limit is 490 LBS		Limit is 13720 IN-LBS				

\*\* Measurements entered in this form are taken from the moment arm reference shown in the diagram to the right.

\*\*\* Include any items mounted on top of rack within the column for the respective bay that is it mounted over

