MOD Format 756(Merlin)
(Established Jul 24)

Aircraft Weighing Report

Multi-Point Electronic Load Cell Method

Latitude Correction Figure	

Weighing Position	Serial No.	Indicated Load	Indicated Zero Error	Latitude Correction Load	Calibration Correction	Symbol	Actual Load
Weigh 1							
Nose Pt						**Wt1 Pt**	
Nose Stbd						**Wt1 Stbd**	
Main Pt Inner						**W1**	
Main Pt Outer						**W2**	
Main Stbd Inner						**W3**	
Main Stbd Outer						**W4**	
					First Weigh Total	**W**	
Weigh 2							
Nose Pt						**Wt1 Pt**	
Nose Stbd						**Wt1 Stbd**	
Main Pt Inner						**W1**	
Main Pt Outer						**W2**	
Main Stbd Inner						**W3**	
Main Stbd Outer						**W4**	
					Second Weigh Total	**W**	
Weigh 3							
Nose Pt						**Wt1 Pt**	
Nose Stbd						**Wt1 Stbd**	
Main Pt Inner						**W1**	
Main Pt Outer						**W2**	
Main Stbd Inner						**W3**	
Main Stbd Outer						**W4**	
					Third Weigh Total	**W**	

For completion of the following section choose the ***MEDIAN*** of the 3 weighs above ***either weigh 1, 2 or 3.***		
Nose Pt Weight	**Wt1 Pt**	
Nose Stbd Weight	**Wt1 Stbd**	
Main Pt Inner Weight	**W1**	
Main Pt Outer Weight	**W2**	
Main Stbd Inner Weight	**W3**	
Main Stbd Outer Weight	**W4**	
Weigh Total	**W**	

Longitudinal Calculations		
Centre Line Nose U/C to Centre Line Main U/C Aircraft at Angle	**L**	
Centre Line Main U/C to WRD Aircraft at Angle	**d**	
Distance of C of G from Main Jacking Point as Weighed = $\frac{(Wt1\ Pt + Wt1\ Stbd) \times (L)}{(W)}$	**a**	
Distance of C of G from Aircraft Datum as Weighed = (d) - (a)	**xa**	
Aircraft Logitudinal Out of Level Angle as a Decimal		
Vertical Centre of Gravity Position (z figure taken from Aircraft data set)	**z**	
Corrected Longitudinal C of G from WRD (xa/Cos Aircraft angle)-(z x Tan Aircraft angle)	**x2**	
C of G Datum to WRD (B figure taken from Aircraft data set)	**B**	
Corrected as Weighed Longitudinal C of G from CG Datum = x2 + B	**x**	
Aircraft Longitudinal Moment as Weighed = (W) x (x)	**m(x)**	
Basic Weight of Aircraft = (W) plus deficiences, minus surpluses	**BW**	
Basic Moment = (m(x)) plus deficiences, minus surpluses	**BM(X)**	
Distance of C of G from : A/C * Datum in Basic Weight Condition = $\frac{(BM(X))}{(BW)}$	**X**	

Lateral Calculations		
Centre Line Outer Main U/C Wheel to Aircraft Centre Line: (g figure taken from Aircraft data set)	**g**	
Centre Line Inner Main U/C Wheel to Aircraft Centre Line: (h figure taken from Aircraft data set)	**h**	
Centre Line Pt & Stbd Nose Wheel to Aircraft Centre Line: (j figure taken from Aircraft data set)	**j**	
Aircraft Lateral C of G = (((Wt1pt*j)*-1)+(Wt1stbd*j)+((W 1*h)*-1)+((W2*g)*-1)+(W3*h)+(W4*g))/w	**ya**	
Aircraft Lateral out of level angle as a decimal		
Corrected Lateral C of G from A/C Centre Line (ya/Cos Aircraft angle)-(z x Tan Aircraft angle)	**y**	
Aircraft Moment as Weighed = (W) x (y) **Note: (+ If C of G Stbd of Datum, - If C of G Pt of Datum)**	**m(y)**	
Basic Weight of Aircraft = (W) plus deficiences, minus surpluses	**BW**	
Basic Moment = (m(y)) plus deficiences, minus surpluses	**BM(Y)**	
Distance of C of G from : A/C * Datum in Basic Weight Condition = $\frac{(BM(Y))}{(BW)}$	**Y**	