AIRCRAFT WEIGHT & BALANCE REPORT

References:

(Ref: CAR 91.110(3)(ii)

Instructions:

1. When completed, insert this form in the aircraft logbook.
2. Insert new pages in the aircraft or helicopter Flight Manual Weight and Balance
3. Supplement as required by Advisory Circular AC 43.2

Aircraft Registration P2 -		**Aircraft Type :**		**Report Ref. No :**	

1. The above aircraft was weighed at …… on ……. /……../20……. by ……

Using weighing equipment Serial No's	1.	2.	3.
Date each scale last calibrated			

2. Reasons for Weighing ……
3. Datum Reference …….....

Weighing equipment make and model:

1. …….....
2. ……
3. ……

4. Weighing Position ……..
5. The aircraft was weighed in conformity with:

Manufacturer's instructions: ☐ Other……... ☐

EQUIPMENT LIST

The following items of equipment are included in the Empty Weight figure given in the Weight and Balance supplement of the Flight Manual.

Removable Equipment with Fixed Location Installed at Weighing	**Quantity**	**Removable Equipment with Fixed Location Installed at Weighing**	**Quantity**

Wheel or Jack Point	Scale Reading kg. (lb.)	Tare Weight Kg. (lb.)	Net Weight Kg. (lb.)	
Left Main				
Right Main				
*Total both Mains				
*Nose or Tail				
Total as weighed				

*NOTE: For Helicopter W = Total – both forward Jack Points
w = Total aft Jack Points

Item	Description	Net Weight Kg(lb.)	Armm. (in)	Moment Kg.m (lb.in)
1.	Net Weight (W + w)			
2.	Total items weighed but not part of empty weight			
3.	Total items being part of empty weight not weighed			
4.	Aircraft Empty Weight			

The information required for entry in the loading data is
Empty Weight = ……kg (ib.)

Distance of Empty Weight C.G

Aft/Fwd of Datum = ……m.(in)

Moment = ……..kg.m (ib.in)

The Weight and Balance inspection recorded above has been carried out in accordance with the Papua New Guinea Civil Aviation Rules currently in force and in respect of that work the aircraft is fit for Release to service.

Signed: ……..AMS2/Approval No: …….

Date: ……/……/……..

Use the area to the right to attach the form to the aircraft logbook

AEROPLANES
L = ……m. (in) M=…… m. (in)

$$X = \frac{L \times w}{W + w} = \frac{x}{+} = \ldots\ldots\ldots\ldots\ldots m.(in)$$

Nose Wheel or Jack Point: M-X=……m.(in)

Tail Wheel or Jack Point: M + X= ……..M.(in)

Where
L = measured distance between weighing points with aircraft in weighing position

M = distance of datum from centre line of main wheels
X = Arm of the C of G for the ‘as weighed’ condition.

HELICOPTERS (Longitudinal C of G calculation)

L = ……..m. (in) M= ……m. (in)

$$\text{Forward Datum } X = \frac{(W \times M)+(w \times L)}{W + w} = \ldots\ldots\ldots\ldots m. (in)$$

$$\text{Central Datum } X = \frac{-(W \times M)+(w \times L)}{W + w} = \ldots\ldots\ldots\ldots m. (in)$$

Where
L = Distance of Datum forward of aft jacking point
*M = (Forward datum) = Distance of datum fwd of fwd jack point
*M = (Central datum) = Distance of datum aft of fwd jack point
X = Arm of the C of G.
*NOTE: To be obtained from Manufacturers data

HELICOPTERS (Lateral C of G Calculation)

$$X = \frac{-(AL \times C) + (BR \times D)}{(C + D)} = \ldots\ldots\ldots\ldots m. (in)$$

Where
AL = Measurement of C/L to left Jacks
BR = Measurement of C/L to right Jacks
C = eight on left Jacks
D = Weight on right Jacks
C/L to left is negative
C/L to right is positive
X = Arm of C of G from C/L
C/L = Longitudinal centre line