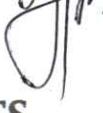


**AIRCRAFT WEIGHT AND C.G DETERMINATION**

REPORT NO : 009/WB/II/2020  
 DATE : 18 FEBRUARY 2020

AIRCRAFT REGISTRATION : PK-SNP  
 AIRCRAFT TYPE : CESSNA C208B CARAVAN EX  
 AIRCRAFT SERIAL NUMBER : 208B5495  
 PROPERTY OF : PT. SMART CAKRAWALA AVIATION  
 PLACE OF WEIGHING : N/A  
 REASON OF WEIGHING : RECALCULATION DUE TO **APE STOL** INSTALLATION  
 CONFIGURATION : AERIAL SURVEY  
 PERFORMED BY : GUSRIL PANE   
 SIGNED:  DATE: 18/02/2020  
 CHECKED BY : ILHAM CHAIRI   
 SIGNED:  DATE: 18/02/2020

**RESULTS**

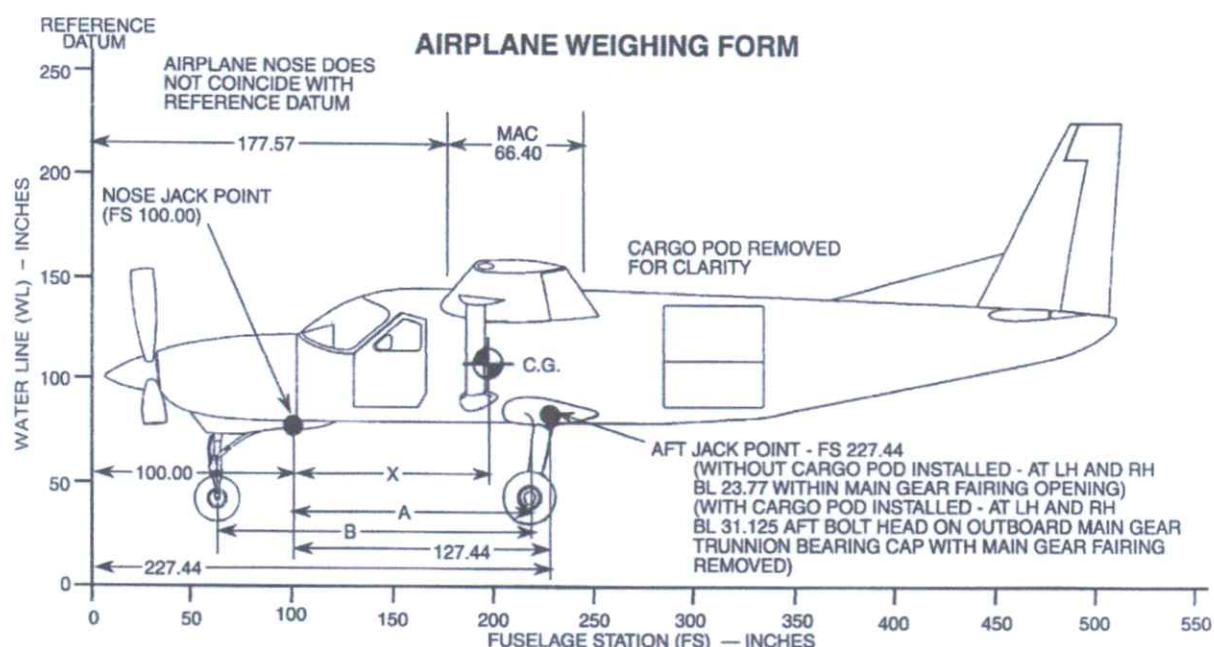
EMPTY WEIGHT	: 5040.85 LBS
C.G ARM OF AIRPLANE	: 184.76 IN
CG PERCENT MAC %	: 10.83 (PERCENT MAC)
VALID UNTIL	: 19 APRIL 2024

**WEIGHING EQUIPMENT**

PART NUMBER	: HH2400-3-10KP
SERIAL NUMBER	: 16FF4DB1
VALIDATION	: 15 AUGUST 2019

APPROVED BY:

  
 Ilham Chairi  
 Chief Inspector



**A = 116.75 Inches**

**B = 157.75 Inches**

## LOCATING CG WITH AIRPLANE ON LANDING GEAR

FORMULA for longitudinal CG

$$(X) = \frac{(A)}{116.75} - \frac{(\text{Nose Gear Net Weight}) (821) X (B) 157.75}{\text{Nose and Main Landing Gear Weight Totaled (5300)}} = (92.31) \text{ Inches}$$

CG Arm of Airplane =  $100 + (X) = (192.31)$  Inches Aft Datum

## **MEASURING A AND B**

MEASURE A AND B PER PILOT'S OPERATING HANDBOOK INSTRUCTIONS TO ASSIST IN LOCATING CG WITH AIRPLANE WEIGHED ON LANDING GEAR

## LOCATING PERCENT MAC

FORMULA for Percent MAC

$$\text{CG Percent MAC} = \frac{\text{CG Arm of Airplane (184.76) - 177.57}}{0.6640} = 10.83 \%$$

## **LEVELING PROVISIONS**

LONGITUDINAL - LEFT SIDE OF FUSELAGE AT FS 239.00 & 272.00  
LATERAL - SEAT RAILS AFT OF PILOT AND FRONT PASSENGER SEATS

## **AIRPLANE AS WEIGHED TABLE**

POSITION	SCALE READING	SCALE DRIFT	TARE	NET WEIGHT
LEFT SIDE	2237	-	-	2237
RIGHT SIDE	2242	-	-	2242
NOSE	821	-	-	821
<b>AIRPLANE TOTAL AS WEIGHT</b>				<b>5300</b>

**TABLE 1**

BASIC ITEMS NOT INCLUDED WHEN WEIGHING	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
Pay load Extender System	5.8	202	1.18
<b>TOTAL</b>	<b>5.8</b>	<b>202</b>	<b>1.18</b>

**TABEL 2**

DESCRIPTION OF ACTION PERFORMED	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
Removed Cargo Pod	192.55	216.53	41.69
Single Seat Assy 3 <sup>rd</sup> Row - LH	25.10	213.55	5.36
Single Seat Assy 4 <sup>th</sup> Row - LH	25.10	249.55	6.26
Bench Assy 3 <sup>rd</sup> Row - RH	46.30	231.69	10.73
<b>TOTAL</b>	<b>289.05</b>	<b>325.34</b>	<b>94.04</b>

**TABEL 3**

AIRCRAFT WEIGHING REPORT	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
AIRPLANE (CALCULATED OR AS WEIGHED) (INCLUDES ALL UNDRAINABLE FLUIDS AND FULL OIL)	5300	192.31	1019.24
WEIGHT FROM TABLE 1 (+)	5.8	202	1.18
<b>SUB TOTAL</b>	<b>5305.8</b>	<b>192.32</b>	<b>1020.42</b>
WEIGHT FROM TABLE 2 (-)	289.05	325.34	94.04
<b>TOTAL</b>	<b>5016.75</b>	<b>184.66</b>	<b>926.38</b>

**BASIC EMPTY WEIGHT AND CENTER OF GRAVITY TABLE**

ITEM	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
AIRPLANE (CALCULATED OR AS WEIGHED) (INCLUDES ALL UNDRAINABLE FLUIDS AND FULL OIL)	5016.75	184.66	926.38
DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALLON S/N 208B0090 And On	24.1	206.4	4.97
<b>BASIC EMPTY WEIGHT</b>	<b>5040.85</b>	<b>184.76</b>	<b>931.35</b>

**PRIOR TO WEIGHT AND BALANCE CHECK**
**AIRCRAFT TYPE** : CESSNA C208B CARAVAN

**AIRCRAFT REGISTRATION** : PK-SNP

**DATE OF WEIGHING** : 18 February 2020

NO.	DESCRIPTION	APPL	CHECK	REMARKS
<b>A</b>	<b>STANDARD ITEMS</b>			
1	All fuel tank EMPTY or recorded / FULL	✓	Empty	-
2	All engine oil tanks EMPTY or recorded / FULL	✓	Full	-
3	All others oil tanks FULL (included Propeller, Starters, Gearbox and Air Cycle)	✓	Full	-
4	Hydraulic tanks FULL	✓	Full	-
<b>B</b>	<b>STANDARD EQUIPMENTS</b>			
1	Technical supply or Flight Kits	x	N/A	-
2	Aircraft Books, Manuals and Papers	✓	1 Bag	-
3	AXE	✓	1 EA	-
4	Fire Extinguisher	✓	1 EA	-
5	First Aid Kit	✓	1 Box	-
6	Life Vests	✓	11 EA	-
7	Life Raft	x	N/A	-
8	Survival Kit	x	N/A	-