

N945LF

2021 Citation M2

Weight & Balance

MSN: 525-1076



Prepared by the worldwide aviation specialists at RidgeAire, Inc.

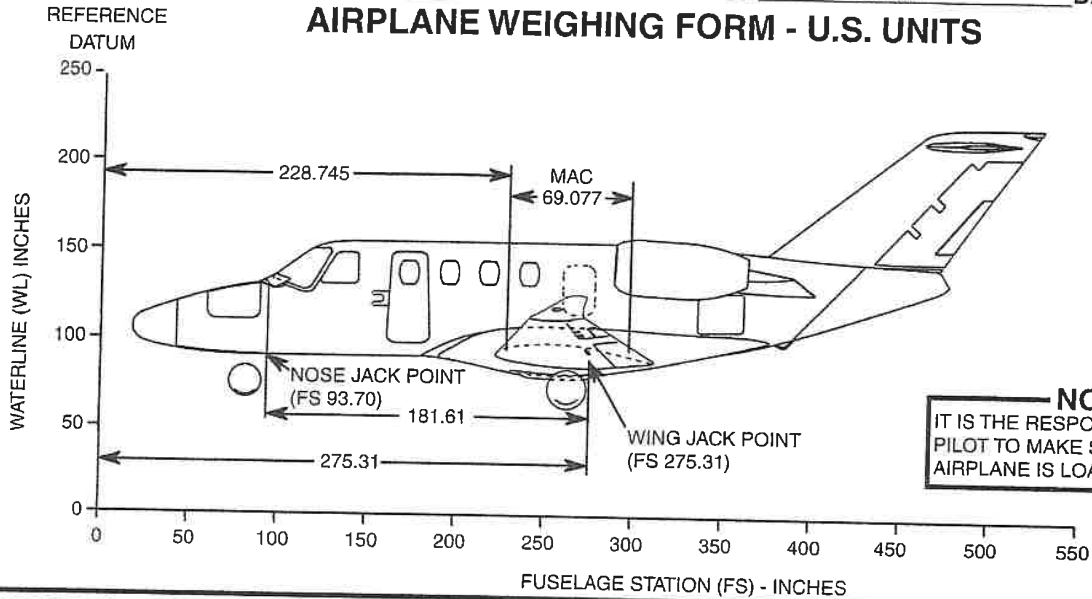
MODEL 525 M2

WEIGHT AND BALANCE DATA



SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

AIRPLANE WEIGHING FORM - U.S. UNITS



NOTE
IT IS THE RESPONSIBILITY OF THE PILOT TO MAKE SURE THAT THE AIRPLANE IS LOADED PROPERLY.

LOCATING CG WITH AIRPLANE ON LANDING GEAR

FORMULA for Longitudinal CG

$$\text{CG Arm of Airplane} = \frac{(\text{Nose Gear Axle FS}) \times (\text{Nose Gear Net Weight}) + (\text{Left Main Gear Axle FS}) \times (\text{Left Main Gear Net Weight}) + (\text{Right Main Gear Axle FS}) \times (\text{Right Main Gear Net Weight})}{\text{Nose and Main Landing Gear Weight Totalled ()}} = (\quad) \text{ Inches Aft of Datum}$$

Refer to Figure 6-1 (Sheet 4) for fuselage station of gear reactions.

LOCATING CG WITH AIRPLANE ON JACK PADS

FORMULA for Longitudinal CG

$$\text{CG Arm of Airplane} = \frac{181.61 \times (\text{Nose Jack Point Net Weight (857)})}{\text{Nose and Wing Jack Point Weight Totalled (6809)}} = (252.45) \text{ Inches Aft of Datum}$$

LEVELING PROVISIONS

LONGITUDINAL - LH UPPER FLOORBOARD AFT OF FS 151.00
LATERAL - LH AND RH UPPER FLOORBOARD AT FS 152.00

AIRPLANE AS WEIGHED TABLE

| POSITION | SCALE READING | SCALE DRIFT | TARE | NET WEIGHT |
|---------------------------|---------------|-------------|------|------------|
| LEFT WING | 2976.00 | 0 | 0 | 2976.00 |
| RIGHT WING | 2976.00 | 0 | 0 | 2976.00 |
| NOSE | 857.00 | 0 | 0 | 857.00 |
| AIRPLANE TOTAL AS WEIGHED | | | | 6809.00 |

LOCATING PERCENT MAC

FORMULA for Percent MAC

$$\text{CG Percent MAC} = \frac{(\text{CG Arm of Airplane}) - 228.745}{0.6908}$$

BASIC EMPTY WEIGHT AND CENTER-OF-GRAVITY TABLE

| ITEM | WEIGHT (POUNDS) | CG ARM (INCHES) | MOMENT (INCH-POUNDS/100) |
|--|-----------------|-----------------|--------------------------|
| AIRPLANE (CALCULATED OR AS WEIGHED) (INCLUDES ALL UNDRAINABLE FLUIDS AND FULL OIL) | 6809.00 | 252.45 | 17189.32 |
| DRAINABLE UNUSABLE FUEL AT 6.7 POUNDS PER GALLON | 30.64 | 260.19 | 79.72 |
| See attached sheet | -3.87 | 145.99 | -5.65 |
| BASIC EMPTY WEIGHT | 6835.77 | 252.54 | 17263.39 |

CESSNA AIRCRAFT COMPANY, AIRCRAFT DIVISION, P.O. BOX 7704, WICHITA, KANSAS 67277

MODEL 525 M2

WEIGHT AND
BALANCE DATA



SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

WEIGHT AND BALANCE RECORD
(CONTINUOUS HISTORY OF CHANGES IN STRUCTURE MODIFICATION
OR EQUIPMENT AFFECTING WEIGHT AND BALANCE)

| DATE | ITEM | | DESCRIPTION OF STRUCTURE MODIFICATION OR EQUIPMENT | WEIGHT CHANGE | | | | | | BASIC EMPTY WEIGHT | |
|------|------|--|---|---------------|-----|--------------------|-----------------|----------------|--------------------|--------------------------|----------------|
| | | | | ADDED (+) | | | REMOVED (-) | | | | |
| | | | | IN | OUT | WEIGHT (POUNDS) | ARM (INCHES) | MOMENT /100 | WEIGHT (POUNDS) | ARM (INCHES) | MOMENT /100 |
| | | | | | | | | | | | |



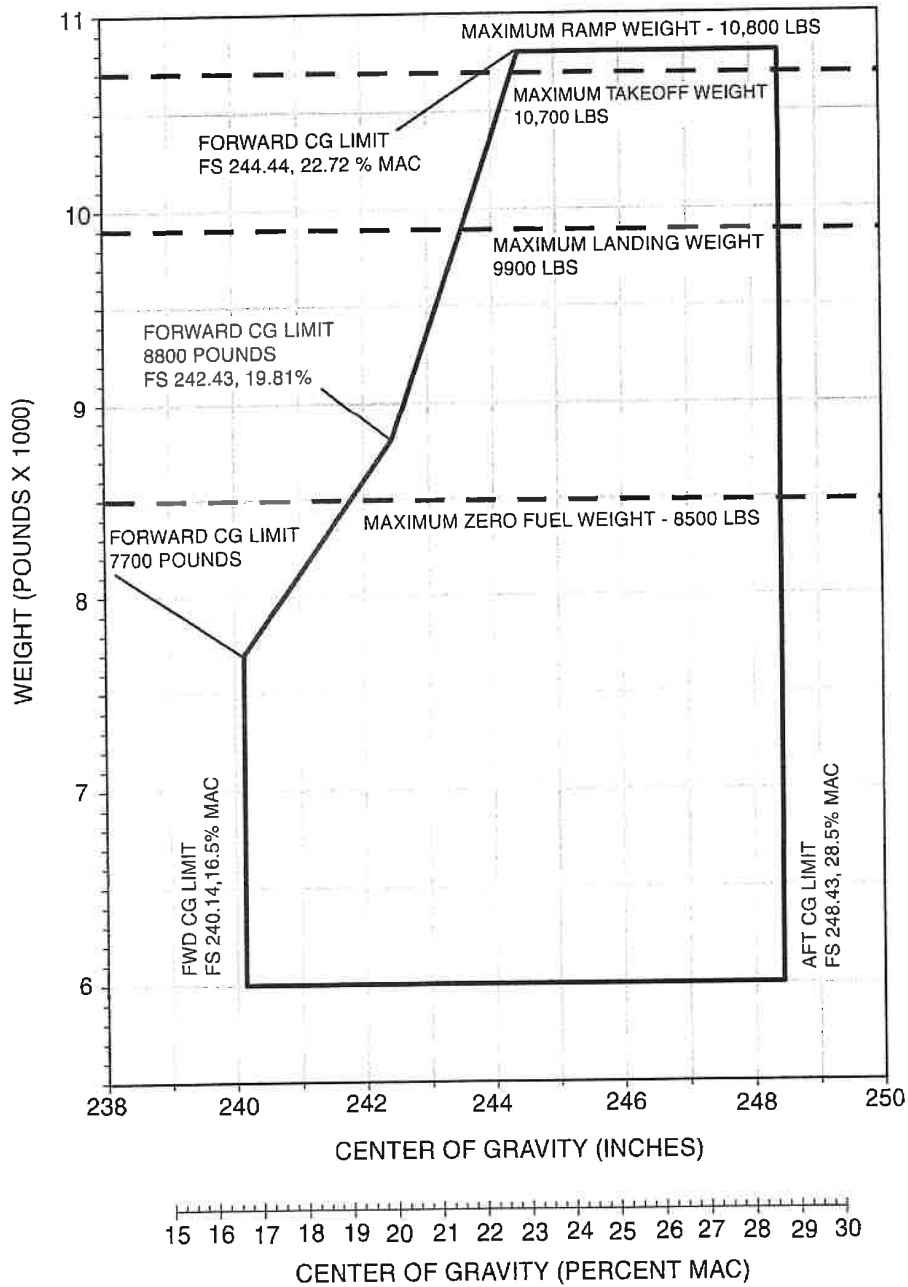
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WEIGHT AND BALANCE DATA

MODEL 525 M2

SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

CENTER-OF-GRAVITY LIMITS - U.S. UNITS



MODEL 525 M2

WEIGHT AND
BALANCE DATA



SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

FUEL LOADING WEIGHT AND MOMENT TABLE (U.S. UNITS)

| WEIGHT (POUNDS) | FS (INCHES) | MOMENT/100 (INCH-POUNDS) |
|--------------------|----------------|-----------------------------|
| 100 | 258.1 | 258.1 |
| 200 | 258.0 | 516.1 |
| 300 | 257.6 | 772.8 |
| 400 | 257.0 | 1028.0 |
| 500 | 256.3 | 1281.6 |
| 600 | 255.6 | 1533.9 |
| 700 | 254.9 | 1784.5 |
| 800 | 254.4 | 2035.1 |
| 900 | 254.0 | 2285.8 |
| 1000 | 253.7 | 2536.7 |
| 1100 | 253.4 | 2787.7 |
| 1200 | 253.2 | 3038.8 |
| 1300 | 253.1 | 3289.8 |
| 1400 | 252.9 | 3540.8 |
| 1500 | 252.8 | 3791.8 |
| 1600 | 252.7 | 4042.9 |
| 1700 | 252.6 | 4294.2 |
| 1800 | 252.6 | 4545.8 |
| 1900 | 252.5 | 4798.0 |
| 2000 | 252.5 | 5050.7 |
| 2100 | 252.6 | 5303.9 |
| 2200 | 252.6 | 5557.5 |
| 2300 | 252.7 | 5811.4 |
| 2400 | 252.7 | 6065.4 |
| 2500 | 252.8 | 6319.4 |
| 2600 | 252.8 | 6573.4 |
| 2700 | 252.9 | 6827.3 |
| 2800 | 252.9 | 7081.0 |
| 2900 | 252.9 | 7334.7 |
| 3000 | 252.9 | 7588.3 |
| 3100 | 253.0 | 7841.8 |
| 3200 | 253.0 | 8095.1 |
| 3296 | 253.0 | 8338.2 |
| 3300 | 253.0 | 8348.5 |
| 3400 | 253.0 | 8601.5 |

MODEL 525 M2

WEIGHT AND BALANCE DATA



SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

BAGGAGE AND CABINET COMPARTMENTS - STANDARD WEIGHT AND MOMENT TABLES - U.S. UNITS

RH CHART CASE

| WEIGHT (POUNDS) | MOMENT/100 |
|-----------------|------------------------------|
| | CHART CASE ARM FS 149.20 in. |
| 2.5 | 3.73 |
| 5 | 7.46 |
| 7.5 | 11.19 |
| 10 | 14.92 |

LH FORWARD REFRESHMENT CENTER

| WEIGHT (POUNDS) | MOMENT/100 |
|-----------------|--------------------------------------|
| | REFRESHMENT CENTER ARM FS 155.00 in. |
| 5 | 7.75 |
| 10 | 15.50 |
| 15 | 23.25 |
| 19 | 29.45 |

SIDE FACING SEAT ARMREST CABINET

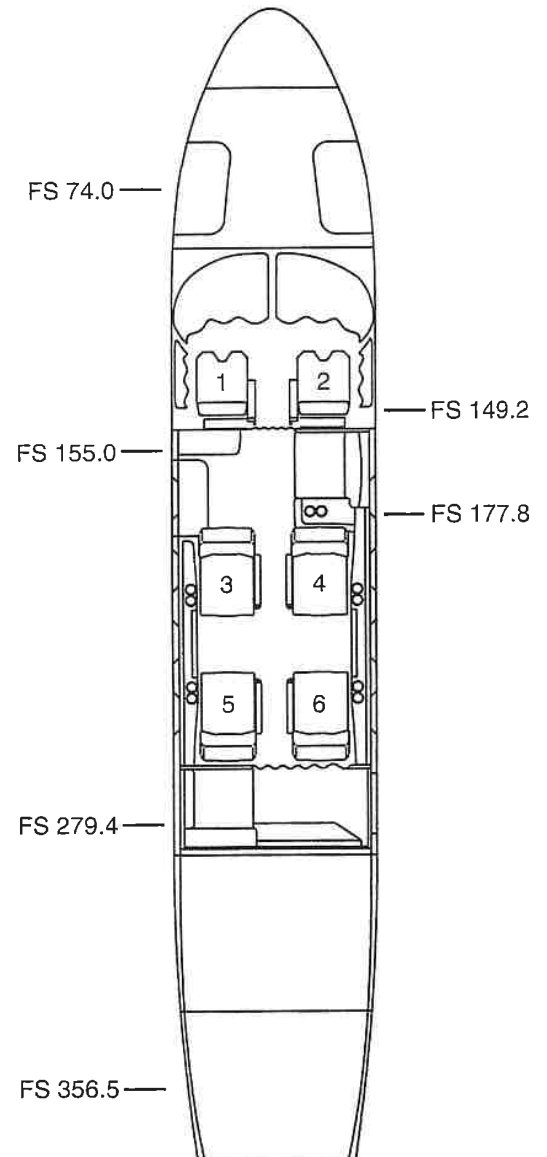
| WEIGHT (POUNDS) | MOMENT/100 |
|-----------------|-----------------------------------|
| | ARMREST CABINET ARM FS 177.80 in. |
| 2.5 | 4.45 |
| 5 | 8.89 |

LH BELTED TOILET DRAWER STORAGE

| WEIGHT (POUNDS) | MOMENT/100 |
|-----------------|----------------------------------|
| | DRAWER STORAGE ARM FS 279.40 in. |
| 2.5 | 6.98 |
| 5 | 13.97 |

BAGGAGE COMPARTMENT

| WEIGHT (POUNDS) | MOMENT/100 | |
|-----------------|-----------------------------------|--|
| | NOSE COMPARTMENT ARM FS 74.00 in. | TAILCONE COMPARTMENT ARM FS 356.50 in. |
| 10 | 7.40 | 35.65 |
| 20 | 14.80 | 71.30 |
| 30 | 22.20 | 106.95 |
| 40 | 29.60 | 142.60 |
| 50 | 37.00 | 178.25 |
| 60 | 44.40 | 213.90 |
| 70 | 51.80 | 249.55 |
| 80 | 59.20 | 285.20 |
| 90 | 66.60 | 320.85 |
| 100 | 74.00 | 356.50 |
| 110 | 81.40 | 392.15 |
| 120 | 88.80 | 427.80 |
| 130 | 96.20 | 463.45 |
| 140 | 103.60 | 499.10 |
| 150 | 111.00 | 534.75 |
| 160 | 118.40 | 570.40 |
| 170 | 125.80 | 606.05 |
| 180 | 133.20 | 641.70 |
| 190 | 140.60 | 677.35 |
| 200 | 148.00 | 713.00 |
| 210 | 155.40 | 748.65 |
| 220 | 162.80 | 784.30 |
| 230 | 170.20 | 819.95 |
| 240 | 177.60 | 855.60 |
| 250 | 185.00 | 891.25 |
| 260 | 192.40 | 926.90 |
| 270 | 199.80 | 962.55 |
| 280 | 207.20 | 998.20 |
| 290 | 214.60 | 1033.85 |
| 300 | 222.00 | 1069.50 |
| 310 | 229.40 | 1105.15 |
| 320 | 236.80 | 1140.80 |
| 325 | 240.50 | 1158.63 |
| 330 | 244.20 | |
| 340 | 251.60 | |
| 350 | 259.00 | |
| 360 | 266.40 | |
| 370 | 273.80 | |
| 380 | 281.20 | |
| 390 | 288.60 | |
| 400 | 296.00 | |



MODEL 525 M2

WEIGHT AND BALANCE DATA



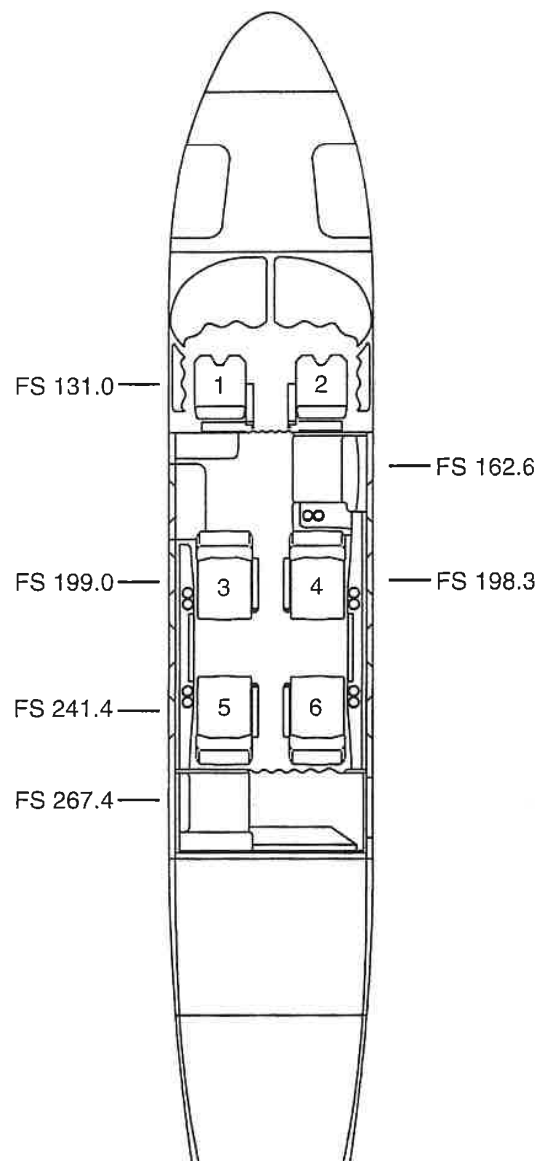
SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

CREW AND PASSENGER COMPARTMENTS WEIGHT AND MOMENT TABLES - U.S. UNITS STANDARD SEATING ARRANGEMENT

CREW AND PASSENGER

| WEIGHT (POUNDS) | MOMENT/100 | | | | | |
|-----------------|---|---|---------------------------------|-----------------------------------|---|---|
| | SEAT 1 OR SEAT 2 ARM = F.S. 131 in. | SIDE FACING SEAT ARM = F.S. 162.6 in. | SEAT 3 ARM = F.S. 199 in. | SEAT 4 ARM = F.S. 198.3 in. | SEAT 5 OR SEAT 6 ARM = F.S. 241.4 in. | LH BELTED TOILET ARM = F.S. 267.4 in. |
| 50 | 65.50 | 81.30 | 99.50 | 99.15 | 120.70 | 133.70 |
| 60 | 78.60 | 97.56 | 119.40 | 118.98 | 144.84 | 160.44 |
| 70 | 91.70 | 113.82 | 139.30 | 138.81 | 168.98 | 187.18 |
| 80 | 104.80 | 130.08 | 159.20 | 158.64 | 193.12 | 213.92 |
| 90 | 117.90 | 146.34 | 179.10 | 178.47 | 217.26 | 240.66 |
| 100 | 131.00 | 162.60 | 199.00 | 198.30 | 241.40 | 267.40 |
| 110 | 144.10 | 178.86 | 218.90 | 218.13 | 265.54 | 294.14 |
| 120 | 157.20 | 195.12 | 238.80 | 237.96 | 289.68 | 320.88 |
| 130 | 170.30 | 211.38 | 258.70 | 257.79 | 313.82 | 347.62 |
| 140 | 183.40 | 227.64 | 278.60 | 277.62 | 337.96 | 374.36 |
| 150 | 196.50 | 243.90 | 298.50 | 297.45 | 362.10 | 401.10 |
| 160 | 209.60 | 260.16 | 318.40 | 317.28 | 386.24 | 427.84 |
| 170 | 222.70 | 276.42 | 338.30 | 337.11 | 410.38 | 454.58 |
| 180 | 235.80 | 292.68 | 358.20 | 356.94 | 434.52 | 481.32 |
| 190 | 248.90 | 308.94 | 378.10 | 376.77 | 458.66 | 508.06 |
| 200 | 262.00 | 325.20 | 398.00 | 396.60 | 482.80 | 534.80 |
| 210 | 275.10 | 341.46 | 417.90 | 416.43 | 506.94 | 561.54 |
| 220 | 288.20 | 357.72 | 437.80 | 436.26 | 531.08 | 588.28 |
| 230 | 301.30 | 373.98 | 457.70 | 456.09 | 555.22 | 615.02 |
| 240 | 314.40 | 390.24 | 477.60 | 475.92 | 579.36 | 641.76 |
| 250 | 327.50 | 406.50 | 497.50 | 495.75 | 603.50 | 668.50 |
| 260 | 340.60 | 422.76 | 517.40 | 515.58 | 627.64 | 695.24 |
| 270 | 353.70 | 439.02 | 537.30 | 535.41 | 651.78 | 721.98 |
| 280 | 366.80 | 455.28 | 557.20 | 555.24 | 675.92 | 748.72 |
| 290 | 379.90 | 471.54 | 577.10 | 575.07 | 700.06 | 775.46 |
| 300 | 393.00 | 487.80 | 597.00 | 594.90 | 724.20 | 802.20 |
| 310 | 406.10 | 504.06 | 616.90 | 614.73 | 748.34 | 828.94 |
| 320 | 419.20 | 520.32 | 636.80 | 634.56 | 772.48 | 855.68 |
| 330 | 432.30 | 536.58 | 656.70 | 654.39 | 796.62 | 882.42 |
| 340 | 445.40 | 552.84 | 676.60 | 674.22 | 820.76 | 909.16 |

**CREW AND PASSENGER
MOMENT ARMS**



MODEL 525 M2

WEIGHT AND
BALANCE DATA



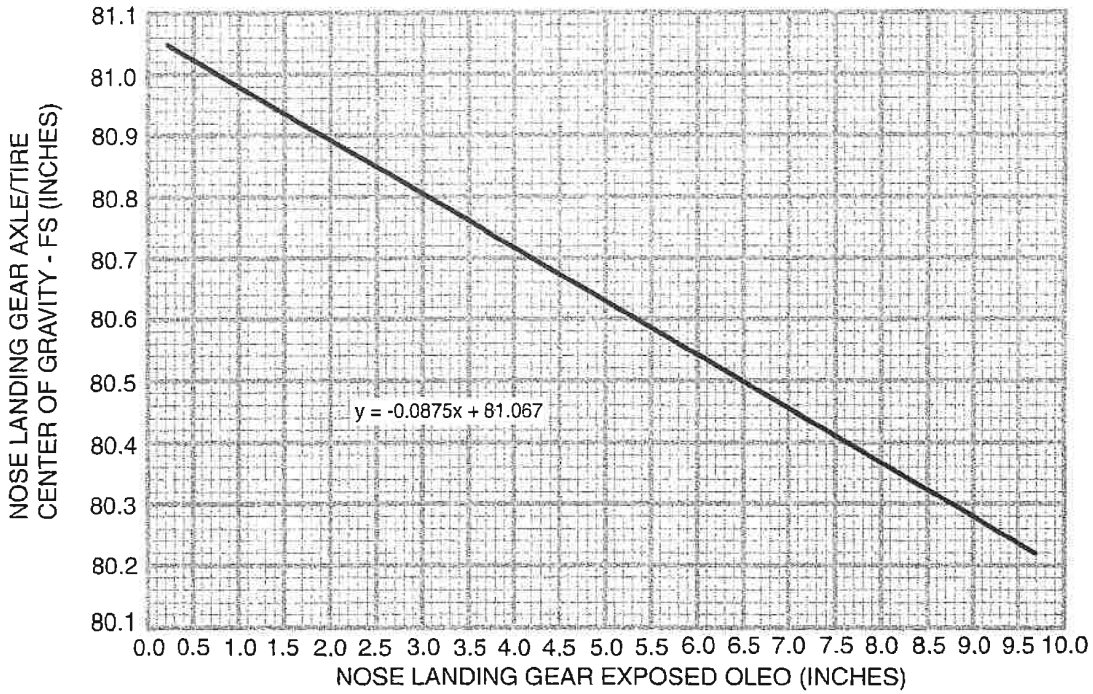
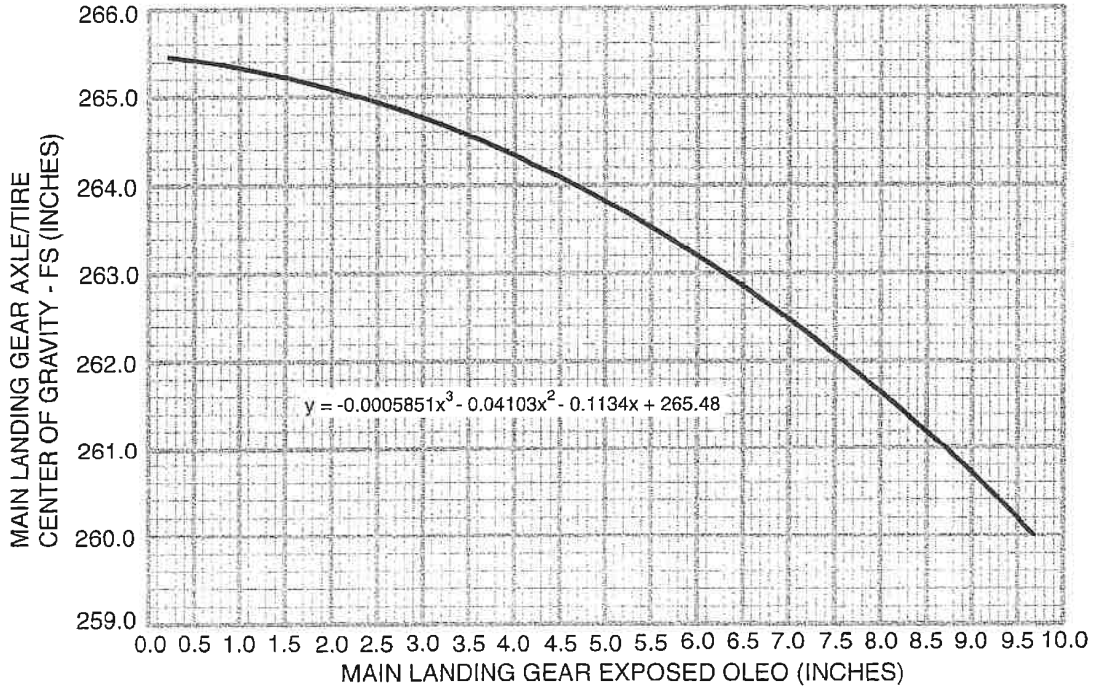
SERIAL NUMBER 525-1076 REGISTRATION NUMBER N945LF DATE 03/12/2021

WEIGHT AND BALANCE COMPUTATION FORM

| PAYLOAD COMPUTATIONS | | | | ITEM | WEIGHT (POUNDS) | MOMENT/ 100 |
|-----------------------|-----------------|--------------------|----------------|--|--------------------|----------------|
| ITEM | ARM (INCHES) | WEIGHT (POUNDS) | MOMENT/ 100 | | | |
| OCCUPANTS | | | | 1. BASIC EMPTY WEIGHT (BEW) *Airplane CG = _____ | | |
| PILOT | 131.0 | | | 2. PAYLOAD | | |
| COPILOT | 131.0 | | | 3. ZERO FUEL WEIGHT (BEW + Payload: Line 1 + 2) (sub-total) Do not exceed maximum zero fuel weight of 8500 pounds. *Airplane CG = _____ | | |
| SIDE FACING SEAT | 162.6 | | | 4. FUEL LOADING (10,800 - ZFW = MAX FUEL) | | |
| SEAT 3 | 199.0 | | | 5. RAMP WEIGHT (ZFW + Fuel Loading: Line 3 + 4) (sub-total) Do not exceed maximum ramp weight of 10,800 pounds. *Airplane CG = _____ *** | *** | |
| SEAT 4 | 198.3 | | | 6. LESS FUEL FOR TAXIING | | |
| SEAT 5 | 241.4 | | | 7. TAKEOFF WEIGHT ** (Ramp Weight - Taxi Fuel: Line 5 - 6) Do not exceed maximum takeoff weight of 10,700 pounds. *Airplane CG = _____ | *** | |
| SEAT 6 | 241.4 | | | 8. LESS FUEL TO DESTINATION | | |
| BELTED TOILET | 267.4 | | | 9. LANDING WEIGHT ** (T/O Weight - Inflight Fuel: Line 7 - 8) Do not exceed maximum landing weight of 9900 pounds. *Airplane CG = _____ | *** | |
| CHART CASE | 149.2 | | | * Airplane CG = $\frac{\text{MOMENT}/100}{\text{WEIGHT}} \times 100$ | | |
| LH FWD REF. CENTER | 155.0 | | | ** Totals must be within approved weight and center-of-gravity limits. It is the responsibility of the pilot to make sure the airplane is loaded properly. The Basic Empty Weight CG is noted on the Airplane Weighing Form. If the airplane has been altered, refer to the Weight and Balance Record for information. | | |
| ARMREST CABINET | 177.8 | | | *** Check the Center-of-Gravity Limits Envelope Graph to make sure the airplane is loaded within approved limits. | | |
| TOILET CABINET | 279.4 | | | | | |
| NOSE BAGGAGE | 74.0 | | | | | |
| TAILCONE BAGGAGE | 356.5 | | | | | |
| PAYLOAD (sub-total) | | | | | | |

A25871

FUSELAGE STATION OF GEAR REACTION POINTS - U.S. UNITS



Locating CG of Airplane (U.S. Units)
Figure 6-1 (Sheet 2)

Weighing Form Attachment



03/12/2021

The items listed below are the shortages and overages of 525-1076
The totals of these items are figured into the Basic Empty Weight on the first page of
these Weight and Balance Forms.

| Overages | Weight (LB) | CG (IN) | Moment/100 (IN-LB) |
|-------------------------------|------------------------|--------------------|-------------------------------|
| Inclinometer and Leveling Bar | 3.87 | 146.00 | 5.65 |

"Mission 0 Flight Origin", ""
"Mission 0 Flight Destination", ""
"Mission 0 Passenger Weight Count", 8
"Seat 1 Passenger", "", 200
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"SFS Passenger", "", 0
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"LH Belted Toilet Passenger", "", 0
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"Nose Baggage Weight", 0
"Tailcone Baggage Weight", 0
"Mission 0 Cabin Store Weight Count", 4
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"LH FWD Cabinet Assy Weight", 0.00
"SFS Armrest Cabinet Weight", 0.00
"LH Toilet Cabinet Weight", 0.00
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"SFS Armrest Cabinet Weight", 0.00
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"Verify Used", -841119853

"File Version",3
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"Units","English"
"Model ID",30
"Title","Citation M2"
"Model","525"
"Manual",525FMC
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"Seating Arrangement",""
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"Furnishing 1","LH FWD Cabinet Assy",19.00,155.00
"Furnishing 2","SFS Armrest Cabinet",5.00,177.80
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