

N737TF

Aircraft Weight & Balance and Performance Form

Weight and Balance Data as of 12/07/2020

Station	Weight		Arm	Moment
Empty Aircraft	1510.5		39.9	60260.6
Fuel	_____	X	48	_____
Front Seats	_____	X	*37	_____
Rear Seats	_____	X	73	_____
Baggage A	_____	X	**95	_____
Baggage B	_____	X	**123	_____
Total	_____	CG	_____	_____

*Pilot or passenger center-of-gravity on adjustable seats positioned for average occupant. Actual front seat aft and forward limits are 34-46.

**Arms measured to the center of the baggage areas indicated. Actual Baggage 'A' forward and aft limits are 82-108. Actual Baggage 'B' forward and aft limits are 108-142.

Aircraft Takeoff Performance and Weather

(Short Field Takeoff Distance)

Headwind	_____ KTS	Crosswind	_____ KTS
Visibility	_____ SM	Ceiling	_____ FT
Temperature	_____ °C	Altimeter	_____ "Hg
Pressure Altitude	_____ FT		
Computed Ground Roll	_____ FT		
Computed Distance To Clear a 50 Ft. Obstacle	_____ FT		

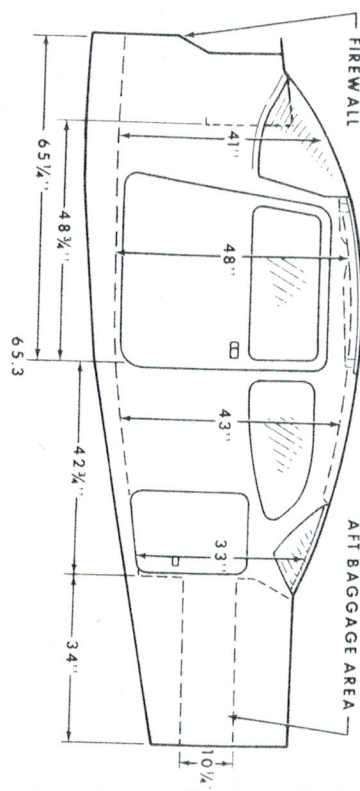
I affirm that I have accurately computed the weight and balance and performance data based on actual weights and current atmospheric conditions. The conditions also meet the Spinks Flight Center weather minimums.

Signature

Print Name

____/____/____
Date

CABIN HEIGHT MEASUREMENTS



DOOR OPENING DIMENSIONS

	WIDTH (TOP)	WIDTH (BOTTOM)	HEIGHT (FRONT)	HEIGHT (REAR)
CABIN DOOR	32"	37"	40"	41"
BAGGAGE DOOR	15 1/2"	15 1/2"	22"	21"

WIDTH
LWR WINDOW
LINE
CABIN FLOOR

CABIN WIDTH MEASUREMENTS

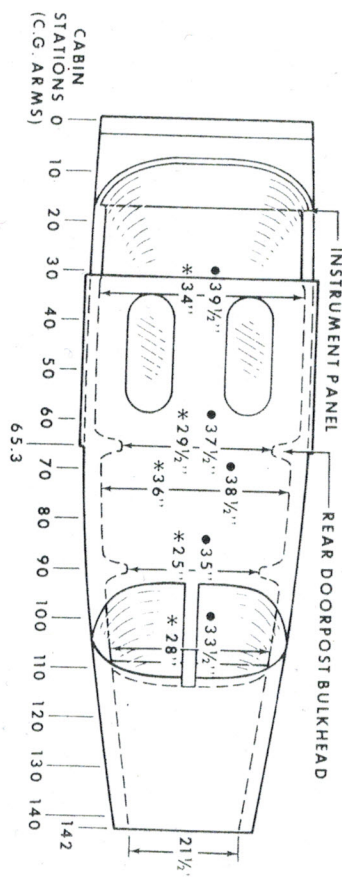


Figure 6-4. Internal Cabin Dimensions

SAMPLE LOADING PROBLEM

	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb. - ins. /1000)	Weight (lbs.)	Moment (lb. - ins. /1000)
1. Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)	1454	57.6		
2. Usable Fuel (At 6 Lbs./Gal.) Standard Tanks (40 Gal. Maximum)	240	11.5		
Long Range Tanks (50 Gal. Maximum)				
3. Pilot and Front Passenger (Station 34 to 46)	340	12.6		
4. Rear Passengers	170	12.4		
5. * Baggage Area 1 or Passenger on Child's Seat (Station 82 to 108) 120 Lbs. Max.	96	9.1		
6. * Baggage Area 2 (Station 108 to 142) 50 Lbs. Max.				
7. TOTAL WEIGHT AND MOMENT	2300	103.2		
8. Locate this point (2300 at 103.2) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.				
NOTE				
* The maximum allowable combined weight capacity for baggage areas 1 and 2 is 120 lbs.				

Figure 6-5. Sample Loading Problem

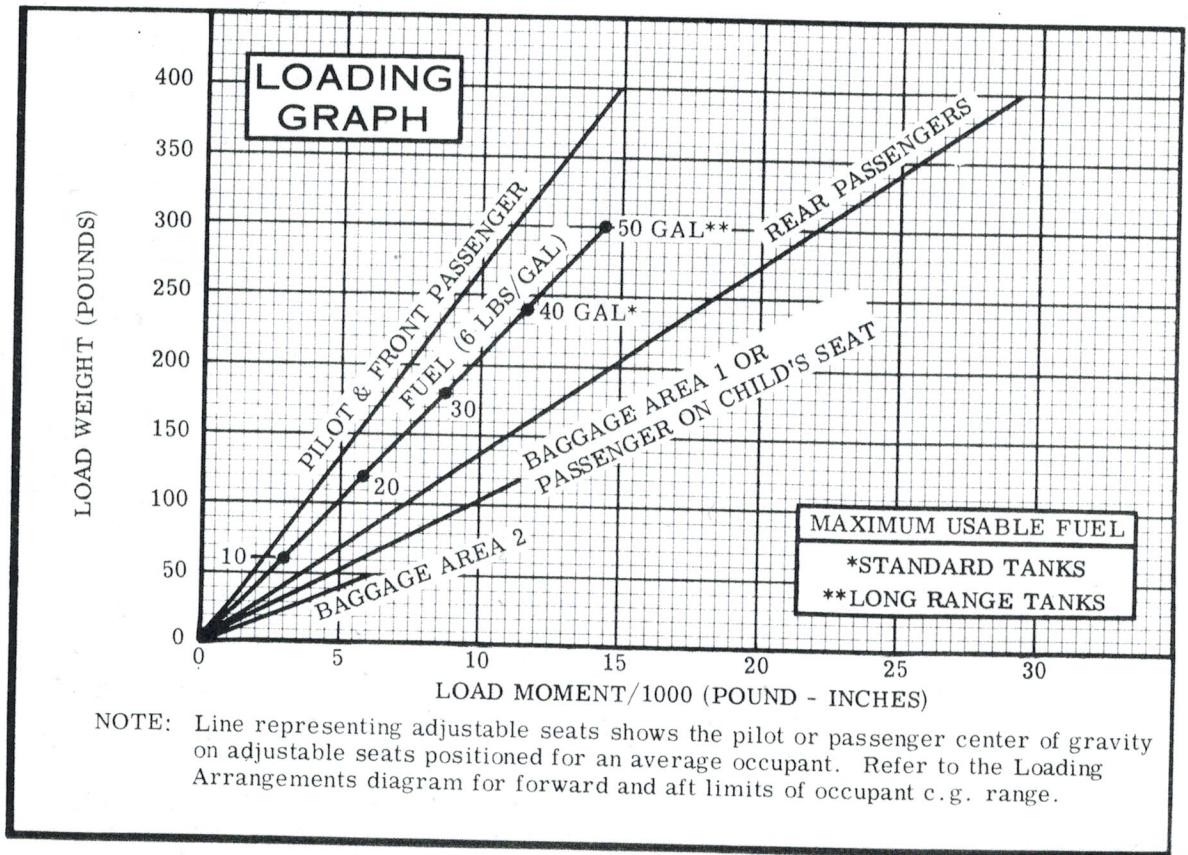


Figure 6-6. Loading Graph

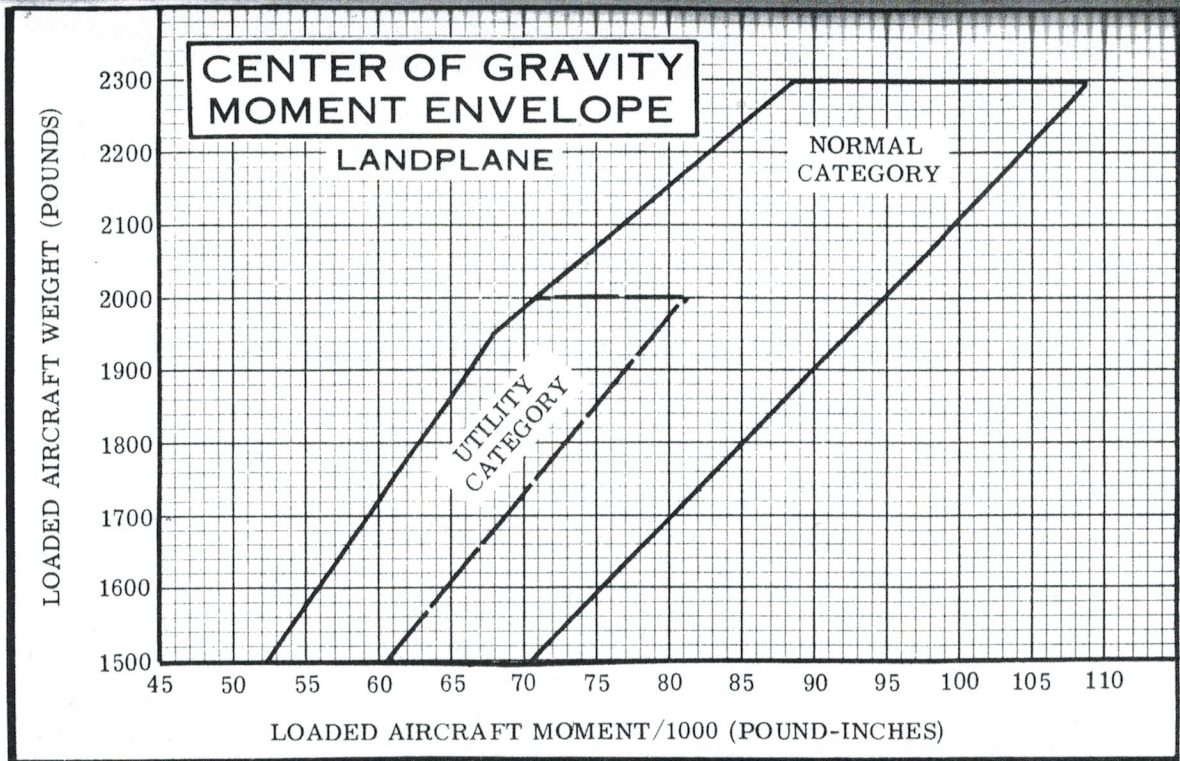


Figure 6-7. Center of Gravity Moment Envelope

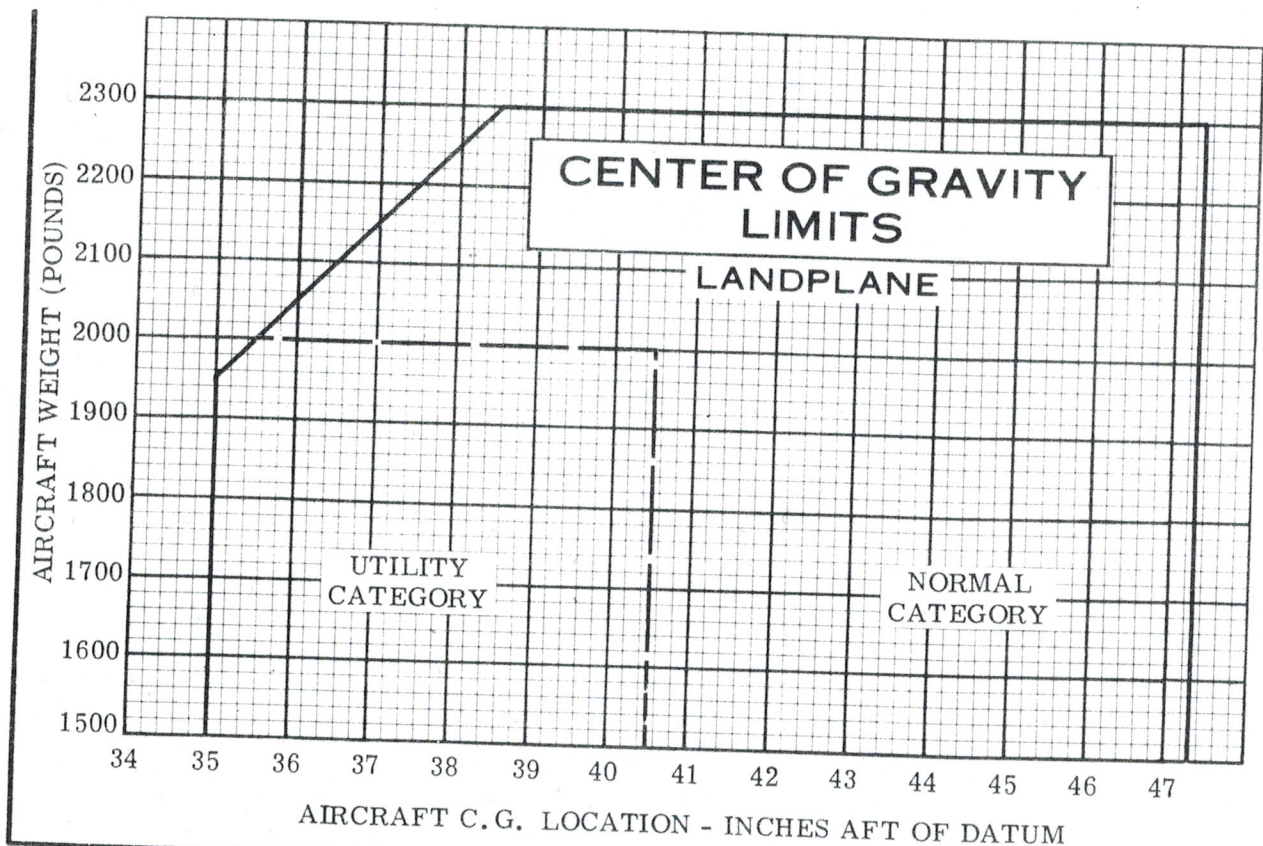


Figure 6-8. Center of Gravity Limits

EQUIPMENT LIST

The following equipment list is a comprehensive list of all Cessna equipment available for this airplane. A separate equipment list of items installed in your specific airplane is provided in your aircraft file. The following list and the specific list for your airplane have a similar order of listing.

This equipment list provides the following information:

- An item number gives the identification number for the item. Each number is prefixed with a letter which identifies the descriptive grouping (example:
 - A. Powerplant & Accessories) under which it is listed. Suffix letters identify the equipment as a required item, a standard item or an optional item. Suffix letters are as follows:
 - R = required items of equipment for FAA certification
 - S = standard equipment items
 - O = optional equipment items replacing required or standard items
 - A = optional equipment items which are in addition to required or standard items

A reference drawing column provides the drawing number for the item.

NOTE

If additional equipment is to be installed, it must be done in accordance with the reference drawing, accessory kit instructions, or a separate FAA approval.

Columns showing weight (in pounds) and arm (in inches) provide the weight and center of gravity location for the equipment.

NOTE

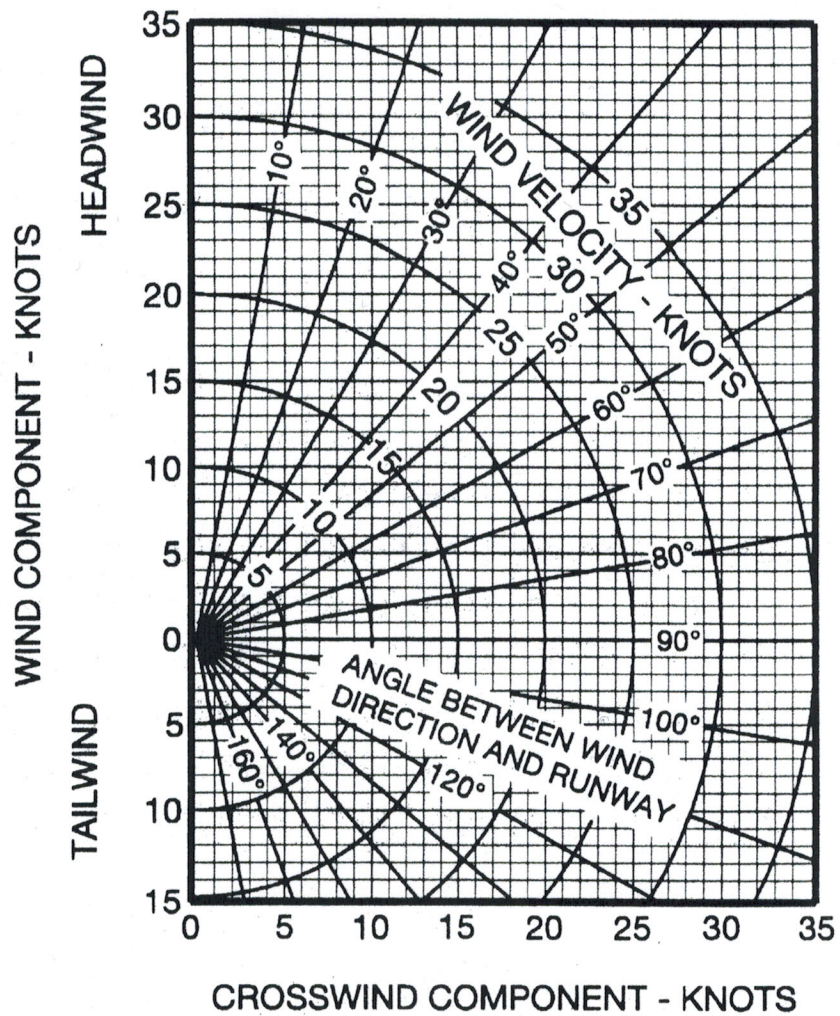
Unless otherwise indicated, true values (not net change values) for the weight and arm are shown. Positive arms are distances aft of the airplane datum; negative arms are distances forward of the datum.

NOTE

Asterisks (*) after the item weight and arm indicate complete assembly installations. Some major components of the assembly are listed on the lines immediately following. The summation of these major components does not necessarily equal the complete assembly installation.

CROSSWIND COMPONENT

B3084



NOTE

Maximum demonstrated crosswind velocity is 15 knots (not a limitation).

0585T1003

Figure 5-4. Crosswind Components

TAKEOFF DISTANCE

MAXIMUM WEIGHT 2300 LBS

SHORT FIELD

CONDITIONS:

Flaps Up
Full Throttle Prior to Brake Release
Paved, Level, Dry Runway
Zero Wind

NOTES:

1. Short field technique as specified in Section 4.
2. Prior to takeoff from fields above 3000 feet elevation, the mixture should be leaned to give maximum RPM in a full throttle, static runup.
3. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
4. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS
2300	52	59	S.L.	720	1300	775	1390	835	1490	895	1590	960	1700
			1000	790	1420	850	1525	915	1630	980	1745	1050	1865
			2000	865	1555	930	1670	1000	1790	1075	1915	1155	2055
			3000	950	1710	1025	1835	1100	1970	1185	2115	1270	2265
			4000	1045	1880	1125	2025	1210	2175	1300	2335	1400	2510
			5000	1150	2075	1240	2240	1335	2410	1435	2595	1540	2795
			6000	1265	2305	1365	2485	1475	2680	1585	2895	1705	3125
			7000	1400	2565	1510	2770	1630	3000	1755	3245	1890	3515
			8000	1550	2870	1675	3110	1805	3375	1945	3670	2095	3990

Figure 5-4. Takeoff Distance (Sheet 1 of 2)

TAKEOFF DISTANCE

2100 LBS AND 1900 LBS

SHORT FIELD

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES.

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WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS	GRND ROLL	TOTAL TO CLEAR 50 FT OBS
2100	50	56	S.L.	585	1070	630	1140	680	1220	725	1300	780	1390
			1000	640	1165	690	1245	740	1330	795	1420	850	1520
			2000	700	1270	755	1360	810	1455	870	1555	935	1665
			3000	770	1390	830	1490	890	1595	955	1710	1025	1830
			4000	845	1525	910	1640	980	1755	1050	1880	1130	2015
			5000	930	1680	1000	1805	1075	1935	1155	2075	1240	2230
			6000	1025	1850	1100	1990	1185	2140	1275	2300	1370	2475
			7000	1130	2050	1215	2210	1310	2380	1410	2560	1515	2755
			8000	1245	2275	1345	2460	1450	2655	1560	2865	1680	3090
			1900	47	54	S.L.	470	865	505	920	540	985	580
1000	515	940				550	1005	590	1070	635	1140	680	1215
2000	560	1025				605	1095	645	1170	695	1245	745	1330
3000	615	1115				660	1195	710	1275	760	1365	815	1455
4000	670	1220				725	1305	780	1400	835	1495	895	1595
5000	740	1340				795	1435	855	1535	920	1640	985	1755
6000	810	1470				875	1575	940	1690	1010	1810	1085	1940
7000	895	1620				965	1740	1035	1865	1115	2000	1195	2145
8000	985	1790				1065	1925	1145	2065	1230	2220	1320	2385

Figure 5-4. Takeoff Distance (Sheet 2 of 2)

Aircraft Weight and Balance Revision Form

Date: 4/12/2013

Aircraft	
Tail No:	N733UD
Make:	Cessna
Model:	C172
Serial:	17268551
Time:	Tach 1707.9
TCD No:	

Registered Owner	
Name:	Acker Aviation Services LLC
Address:	9949 Hunters Run College Station, Tx 77845 1-979-224-3527

Weight	CG Range
Maximum Weight: 2,300.00	FWD: AFT:

As Received			
Previous Weight & Balance Date : 9/27/2012			
Empty Weight: 1,462.50	Useful Load: 837.50	Empty Weight CG: 38.27	Moment: 55,970.12

Item	Weight	Arm	Moment
Item 1 Removed Prestolite Starter MZ4222	-17.1	-19.70	336.87
Item 2 Installed New Starter 149-NL S/N FN-220911	9.7	-19.70	-191.09
Item 3 Removed Old Glareshield	-1.4	14.00	-19.60
Item 4 Installed New Ashby Glareshield PN172L	2.5	19.00	47.50
			0.00
			0.00
			0.00
			0.00

New			
Empty Weight: 1,456.20	Useful Load: 843.80	Empty Weight CG: 38.56	Moment: 56,143.80

Notes:	See Log Entry date 4/12/13 for work done.
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As Calculated ☒
As Weighed ☐

Prepared By: Aviators Plus LLC

Signature: 

Printed Name: Brent Nedbalek A&P 3074565

Repair Agency License No: