

AVIATION CONSULTANCY
and
RESEARCH SERVICES

6.2 AEROPLANE WEIGHT

Aeroplane Type: Cessna R182 S/N 01741
Registration: VH-BBP *NAP*
Issue: 1 Date: 27/11/89 Date of Expiry: N/A

EMPTY WEIGHT AND CENTRE OF GRAVITY DATA

Weight: 862 kg
Centre of gravity: 983 mm aft of the datum
Moment: 847585 kg-mm

Configuration:

unusable fuel, undrainable oil, four seat.

Approved AV1

6.3 LOADING SYSTEM

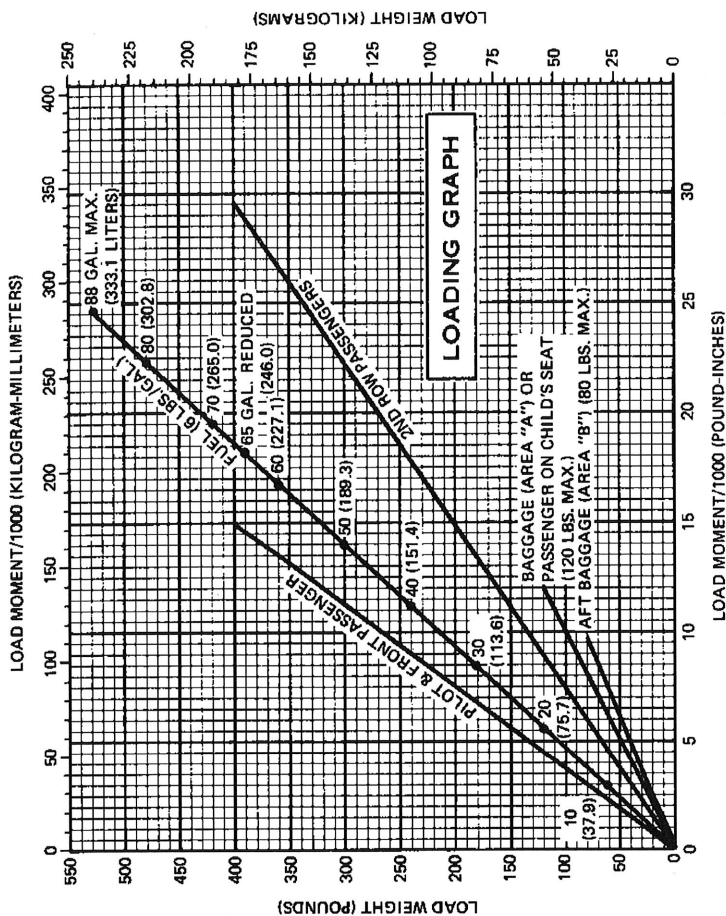
Issue: 1 Date: 27/11/89

1. Applicable 6.2 Issue 1 only.
2. Observe Flight Manual weight limits.
3. Load front seats first, then load rear seats.

Baggage Limitations

4. With three POB maximum baggage is 70 kg.
5. With four POB maximum baggage is 50 kg.

Approved:
J.L. Reddles (Authority AV1)



NOTES: Line representing adjustable seats shows pilot and front seat passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant C.G. range.

Figure 6-6. Loading Graph

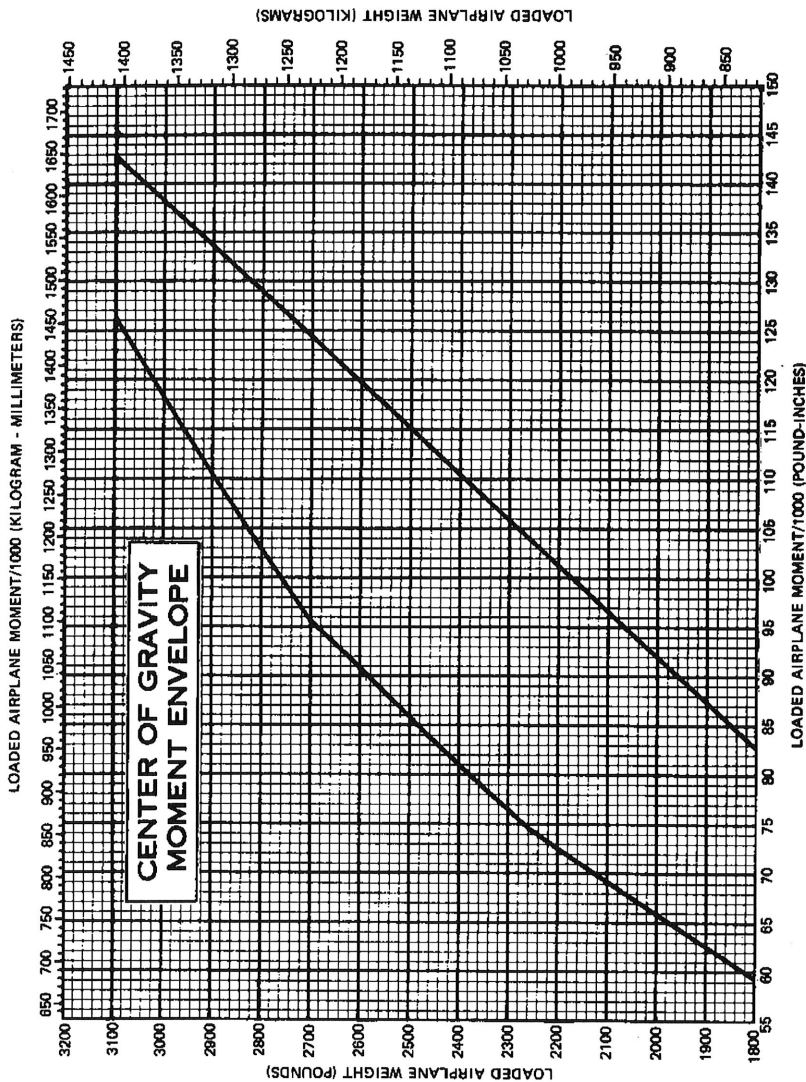


Figure 6-7. Center of Gravity Moment Envelope

TAKEOFF DISTANCE

MAXIMUM WEIGHT 3100 LBS

SHORT FIELD

CONDITIONS:

Flaps 20°
2400 RPM and Full Throttle Prior to Brake Release
Cowl Flaps Open
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 power 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. Where distance value has been deleted, climb performance after lift-off is less than 150 fpm at takeoff speed.
5. 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	GRND ROLL	TOTAL TO CLEAR 50 FT OBS			
3100	52	59	S.L.	735	1410	790	1515	850	1625	910	1745	975	1870	1065	2060	1085	1165	2275
			1000	800	1545	860	1660	925	1785	995	1915	1065	2060	1085	1165	2110	1190	1275
			2000	875	1690	940	1820	1010	1960	1085	2110	1190	2340	1275	2525	1300	1395	2825
			3000	955	1860	1030	2010	1105	2165	1190	2340	1300	2605	1535	3185	1685	3635	
			4000	1045	2055	1125	2225	1210	2405	1300	2605	1430	2925	1570	3310	3805		
			5000	1145	2280	1235	2475	1330	2690	1430	2925	1570	3310	3805				
			6000	1255	2550	1355	2775	1460	3030	1570	3310	3805						
			7000	1380	2870	1490	3140	1605	3450	1730	3805							
			8000	1520	3260	1640	3600	1770	3990									

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

SECTION 5 PERFORMANCE

CESSNA
MODEL R182

LANDING DISTANCE

SHORT FIELD

CONDITIONS:
Flaps 40°
Power Off
Maximum Braking
Paved, Level, Dry Runway
Zero Wind

NOTES:

1. Short field technique as specified in Section 4.
2. Decrease distances 10% for each 9 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.
3. For operation on a dry, grass runway, increase distances by 40% of the "ground roll" figure.

WEIGHT LB\$	SPEED AT 50 FT KIAS	PRESS ALT FT	0°C		10°C		20°C		30°C		40°C	
			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
3100	64	S.L.	570	1270	590	1305	610	1335	630	1370	650	1400
		1000	590	1305	610	1335	635	1375	655	1410	675	1440
		2000	610	1335	635	1375	655	1410	680	1450	700	1480
		3000	635	1375	660	1415	680	1450	705	1490	730	1530
		4000	660	1415	685	1455	705	1490	730	1530	755	1570
		5000	685	1455	710	1495	735	1535	760	1580	785	1620
		6000	710	1500	735	1540	760	1580	790	1625	815	1665
		7000	735	1540	765	1585	790	1630	820	1675	845	1715
		8000	765	1585	795	1635	820	1675	850	1725	880	1770

Figure 5-10. Landing Distance