



C152



OPERATING DATA MANUAL

Just Flight



Operating Data Manual

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STALL PERFORMANCE

Notes:

- Power off condition
- KIAS values are approximate

Most rearward centre of gravity

Weight (lb)	Flap deflection	Angle of bank							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
1,670	UP	36	46	39	49	43	55	51	65
	10°	36	43	39	46	43	51	51	61
	30°	31	41	33	44	37	49	44	58

Most forward centre of gravity

Weight (lb)	Flap deflection	Angle of bank							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
1,670	UP	40	48	43	52	48	57	57	68
	10°	40	48	43	49	48	55	57	65
	30°	35	43	38	46	42	51	49	61

TAKE-OFF PERFORMANCE

Short field take-off distance

Conditions:

- Flaps – 10°
- Full throttle prior to brake release
- Paved, level, dry runway
- Zero wind

Notes:

- Using short field take-off technique
- Decrease distances by 10% for each 9 knots of headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.

Weight (lb)	Takeoff speed (KIAS)		Pressure altitude (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
1,670	50	54	S.L.	640	1190	695	1290	755	1390	810	1495	875	1605
			1000	705	1310	765	1420	825	1530	890	1645	960	1770
			2000	775	1445	840	1565	910	1690	980	1820	1055	1960
			3000	855	1600	925	1730	1000	1870	1080	2020	1165	2185
			4000	940	1775	1020	1920	1100	2080	1190	2250	1285	2440
			5000	1040	1970	1125	2140	1215	2320	1315	2525	1420	2750
			6000	1145	2200	1245	2395	1345	2610	1455	2855	1570	3125
			7000	1270	2470	1375	2705	1490	2960	1615	3255	1745	3590
			8000	1405	2800	1525	3080	1655	3395	1795	3765	1940	4195

CLIMB PERFORMANCE

Rate of climb

Conditions:

- Flaps – UP
- Full throttle

Weight (lb)	Pressure altitude (ft)	Climb speed (KIAS)	Rate of climb (feet/min)			
			-20°C	0°C	20°C	40°C
1,670	S.L.	67	835	765	700	630
	2,000	66	735	670	600	535
	4,000	65	635	570	505	445
	6,000	63	535	475	415	355
	8,000	62	440	380	320	265
	10,000	61	340	285	230	175
	12,000	60	245	190	135	85

Fuel, time and distance to climb

Conditions:

- Flaps – UP
- Full throttle
- Standard temperature

Notes:

- Increase time, fuel and distance by 10% for each 10°C above standard temperature
- Distances shown are based on zero wind

Weight (lb)	Pressure altitude (ft)	Temp (°C)	Climb speed (KIAS)	Rate of climb (ft/min)	From sea level		
					Time (mins)	Fuel used (gals)	Distance (NM)
1,670	S.L.	15	67	715	0	0	0
	1,000	13	66	675	1	0.2	2
	2,000	11	66	630	3	0.4	3
	3,000	9	65	590	5	0.7	5
	4,000	7	65	550	6	0.9	7
	5,000	5	64	505	8	1.2	9
	6,000	3	63	465	10	1.4	12
	7,000	1	63	425	13	1.7	14
	8,000	-1	62	380	15	2.0	17
	9,000	-3	62	340	18	2.3	21
	10,000	-5	61	300	21	2.6	25
	11,000	-7	61	255	25	3.0	29
	12,000	-9	60	215	29	3.4	34

LEVEL FLIGHT PERFORMANCE

Best economy cruise performance

Conditions:

- 1,670 lb
- Using lean mixture

Pressure altitude (ft)	RPM	20°C below standard temp			Standard temp			20°C above standard temp		
		% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2,000	2,400	---	---	---	75	101	6.1	70	101	5.7
	2,300	71	97	5.7	66	96	5.4	63	95	5.1
	2,200	62	92	5.1	59	91	4.8	56	90	4.6
	2,100	55	87	4.5	53	86	4.3	51	85	4.2
	2,000	49	81	4.1	47	80	3.9	46	79	3.8
4,000	2,450	---	---	---	75	103	6.1	70	102	5.7
	2,400	76	102	6.1	71	101	5.7	67	100	5.4
	2,300	67	96	5.4	63	95	5.1	60	95	4.9
	2,200	60	91	4.8	56	90	4.6	54	89	4.4
	2,100	53	86	4.4	51	85	4.2	49	84	4.0
	2,000	48	81	3.9	46	80	3.8	45	78	3.7
6,000	2,500	---	---	---	75	105	6.1	71	104	5.7
	2,400	72	101	5.8	67	100	5.4	64	99	5.2
	2,300	64	96	5.2	60	95	4.9	57	94	4.7
	2,200	57	90	4.6	54	89	4.4	52	88	4.3
	2,100	51	85	4.2	49	84	4.0	48	83	3.9
	2,000	46	80	3.8	45	79	3.7	44	77	3.6
8,000	2,550	---	---	---	75	107	6.1	71	106	5.7
	2,500	76	105	6.2	71	104	5.8	67	103	5.4
	2,400	68	100	5.5	64	99	5.2	61	98	4.9
	2,300	61	95	5.0	58	94	4.7	55	93	4.5
	2,200	55	90	4.5	52	89	4.3	51	87	4.2
	2,100	49	84	4.1	48	83	3.9	46	82	3.8
10,000	2,500	72	105	5.8	68	103	5.5	64	103	5.2
	2,400	65	99	5.3	61	98	5.0	58	97	4.8
	2,300	58	94	4.7	56	93	4.5	53	92	4.4
	2,200	53	89	4.3	51	88	4.2	49	86	4.0
	2,100	48	83	4.0	46	82	3.9	45	81	3.8
12,000	2,450	65	101	5.3	62	100	5.0	59	99	4.8
	2,400	62	99	5.0	59	97	4.8	56	96	4.6
	2,300	56	93	4.6	54	92	4.4	52	91	4.3
	2,200	51	88	4.2	49	87	4.1	48	85	4.0
	2,100	47	82	3.9	45	81	3.8	44	79	3.7

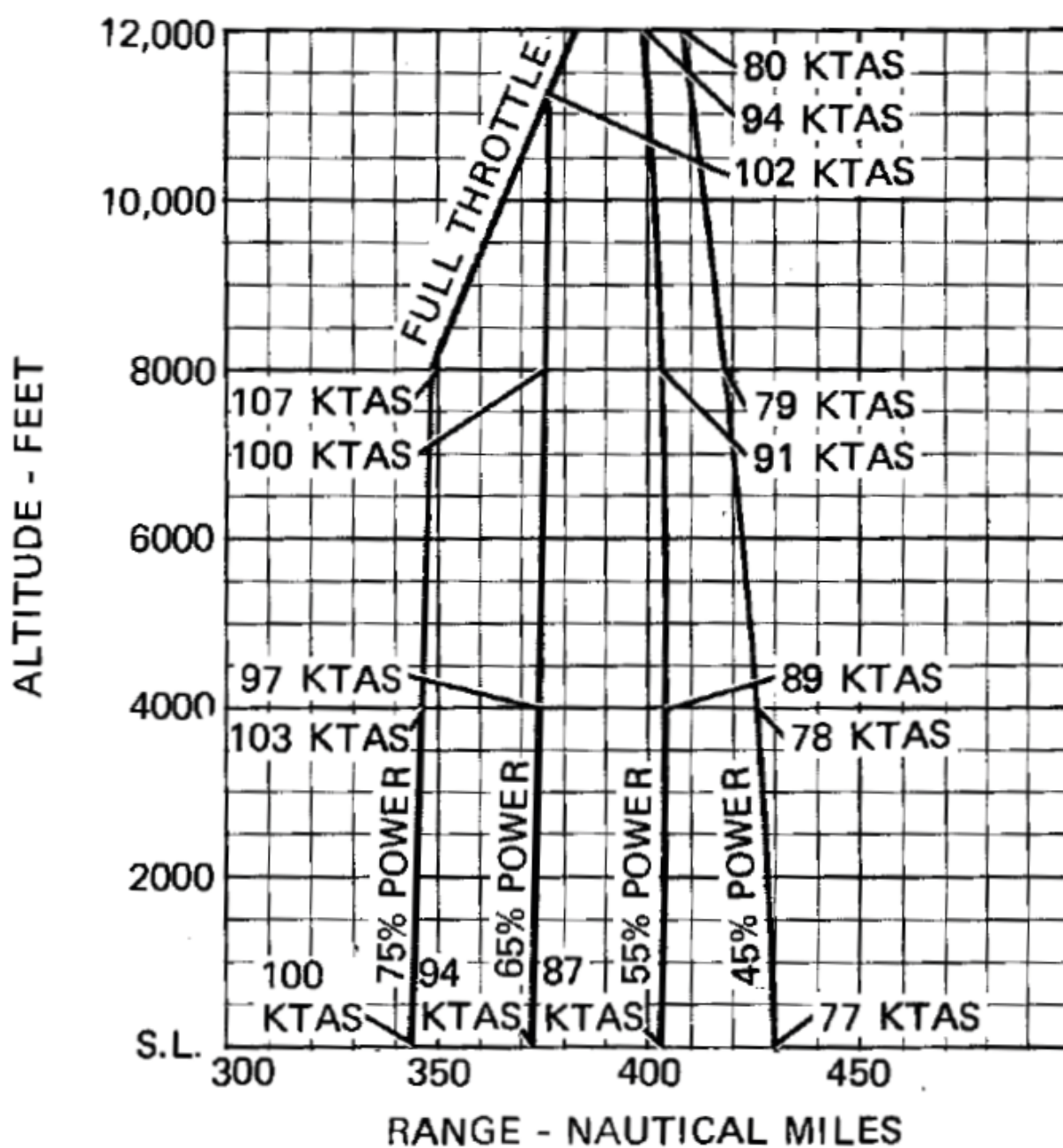
Range profile (45-minute reserve)

Conditions:

- 1,670 lb
- Using lean mixture
- Standard temperature
- Zero wind

Notes:

- Chart allows for fuel used for engine start, taxi, take-off and climb, and the distance during climb
- Reserve fuel is based on 45 minutes at 45% BHP, and is 2.8 gallons



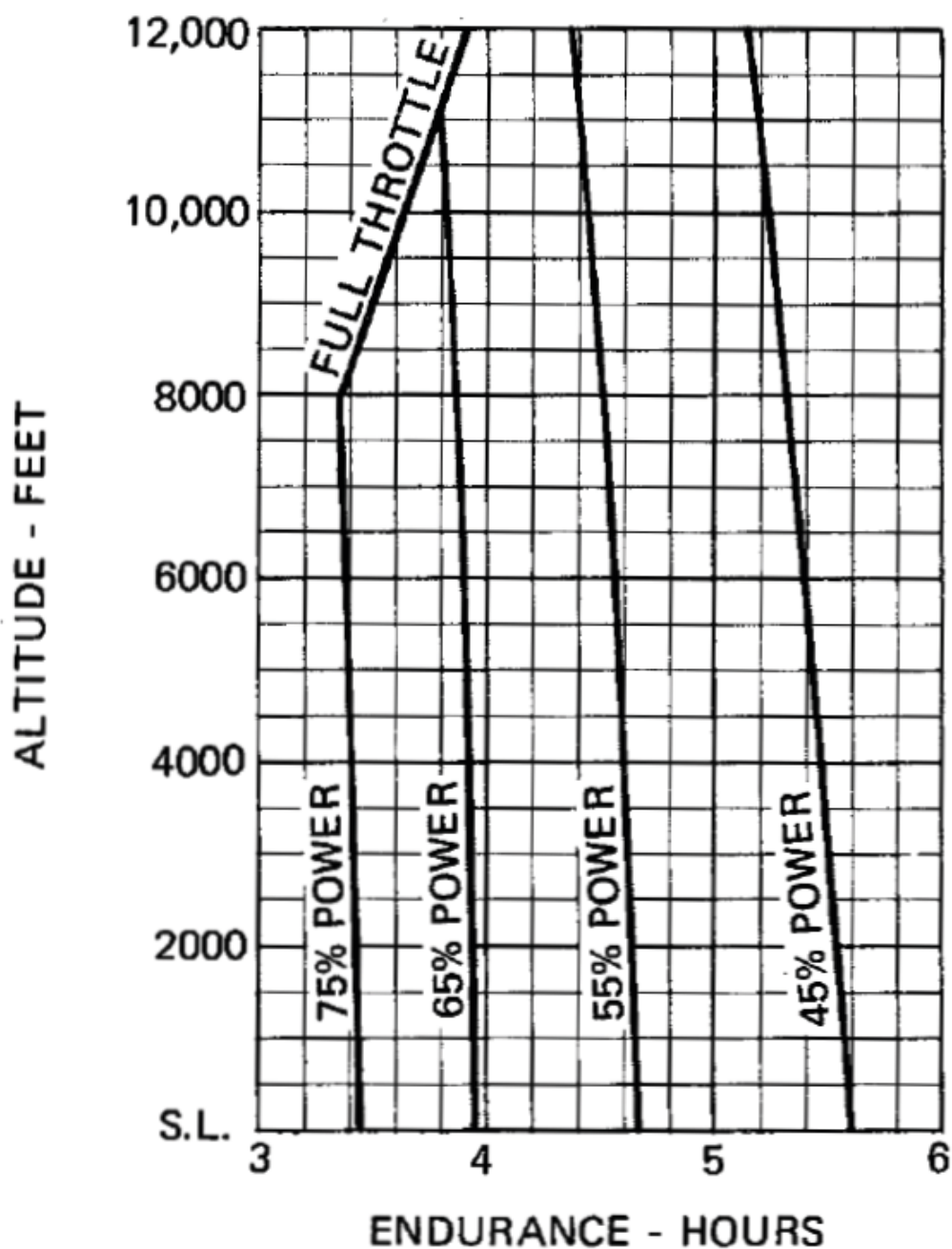
Endurance profile (45-minute reserve)

Conditions:

- 1,670 lb
- Using lean mixture
- Standard temperature

Notes:

- Chart allows for fuel used for engine start, taxi, take-off and climb, and the distance during climb
- Reserve fuel is based on 45 minutes at 45% BHP, and is 2.8 gallons



LANDING PERFORMANCE

Short field

Conditions:

- Flaps – 30°
- Power off
- Maximum braking
- Paved, level, dry runway

Notes:

- Using short field landing technique
- Decrease distances by 10% for each 9 knots of headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2 knots.

Weight (lb)	Speed at 50ft (KIAS)	Pressure altitude (ft)	0°C		10°C		20°C		30°C	
			Ground roll	Total to clear 50ft obstacle	Ground roll	Total to clear 50ft obstacle	Ground roll	Total to clear 50ft obstacle	Ground roll	Total to clear 50ft obstacle
1,670	54	S.L.	450	1,160	465	1,185	485	1,215	500	1,240
		1,000	465	1,185	485	1,215	500	1,240	520	1,270
		2,000	485	1,215	500	1,240	520	1,270	535	1,300
		3,000	500	1,240	520	1,275	540	1,305	560	1,335
		4,000	520	1,275	540	1,305	560	1,335	580	1,370
		5,000	540	1,305	560	1,335	580	1,370	600	1,400
		6,000	560	1,340	580	1,370	605	1,410	625	1,440
		7,000	585	1,375	605	1,410	625	1,440	650	1,480
		8,000	605	1,410	630	1,450	650	1,480	675	1,520

