

RATE OF CLIMB

CONDITIONS:
Flaps Up
2700 RPM
Full Throttle
Cowl Flaps Open

NOTE:
Mixture leaned above 3000 feet for maximum power.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20°C	0°C	20°C	40°C
2500	S.L.	79	970	895	820	745
	2000	77	850	780	705	635
	4000	76	730	660	590	525
	6000	74	610	545	480	410
	8000	72	495	430	365	300
	10,000	70	375	315	255	---
	12,000	68	260	200	140	---

Figure 5-5. Rate of Climb

TIME, FUEL, AND DISTANCE TO CLIMB NORMAL CLIMB - 80 KIAS

CONDITIONS:
Flaps Up
2500 RPM
24 Inches MP or Full Throttle
Cowl Flaps Open
Standard Temperature

- NOTES:
1. Add 1.4 gallons of fuel for engine start, taxi and takeoff allowance.
 2. Mixture leaned above 3000 feet for best power.
 3. Increase time, fuel and distance by 10% for each 10°C above standard temperature.
 4. Distances shown are based on zero wind.

WEIGHT LBS	PRESSURE ALTITUDE FT	TEMP °C	RATE OF CLIMB FPM	FROM SEA LEVEL		
				TIME MIN	FUEL USED GALLONS	DISTANCE NM
2500	S.L.	15	510	0	0	0
	1000	13	510	2	0.4	3
	2000	11	510	4	0.8	5
	3000	9	510	6	1.2	8
	4000	7	510	8	1.6	11
	5000	5	510	10	2.0	14
	6000	3	485	12	2.4	17
	7000	1	430	14	2.8	20
	8000	-1	375	17	3.3	24
	9000	-3	320	20	3.8	29
	10,000	-5	265	23	4.4	34
	11,000	-7	210	27	5.2	41
	12,000	-9	155	33	6.2	50

Figure 5-6. Time, Fuel, and Distance to Climb (Sheet 1 of 2)

TIME, FUEL, AND DISTANCE TO CLIMB

MAXIMUM RATE OF CLIMB

CONDITIONS:
Flaps Up
2700 RPM
Full Throttle
Cowl Flaps Open
Standard Temperature

NOTES:

1. Add 1.4 gallons of fuel for engine start, taxi and takeoff allowance.
2. Mixture leaned above 3000 feet for maximum power.
3. Increase time, fuel and distance by 10% for each 10°C above standard temperature.
4. Distances shown are based on zero wind.

WEIGHT LBS	PRESSURE ALTITUDE FT	TEMP °C	CLIMB SPEED KIAS	RATE OF CLIMB FPM	FROM SEA LEVEL		
					TIME MIN	FUEL USED GALLONS	DISTANCE NM
2500	S.L.	15	79	840	0	0	0
	1000	13	78	790	1	0.3	2
	2000	11	77	740	3	0.7	3
	3000	9	77	685	4	1.1	5
	4000	7	76	635	6	1.5	7
	5000	5	75	585	7	1.9	10
	6000	3	74	535	9	2.3	12
	7000	1	73	485	11	2.8	15
	8000	-1	72	430	13	3.3	18
	9000	-3	71	380	16	3.8	22
	10,000	-5	70	330	19	4.5	26
	11,000	-7	69	280	22	5.2	30
	12,000	-9	68	230	26	6.0	36

Figure 5-6. Time, Fuel, and Distance to Climb (Sheet 2 of 2)

CRUISE PERFORMANCE

PRESSURE ALTITUDE 2000 FEET

CONDITIONS:
Recommended Lean Mixture
2500 Pounds
Cowl Flaps Closed

RPM	MP	20°C BELOW STANDARD TEMP -9°C			STANDARD TEMPERATURE 11°C			20°C ABOVE STANDARD TEMP 31°C		
		% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2500	24	---	---	---	78	124	10.5	76	125	10.1
	23	77	120	10.3	74	121	9.9	71	122	9.5
	22	72	117	9.6	70	118	9.2	67	118	8.9
	21	68	114	8.9	65	114	8.6	63	114	8.3
2400	24	---	---	---	76	123	10.3	74	124	9.9
	23	75	119	10.0	72	120	9.6	70	120	9.3
	22	70	116	9.4	68	117	9.0	66	117	8.7
	21	66	113	8.7	64	113	8.4	62	113	8.1
2300	24	77	121	10.3	74	121	9.9	72	122	9.5
	23	73	118	9.7	70	118	9.3	68	118	9.0
	22	68	115	9.0	66	115	8.7	64	115	8.4
	21	64	111	8.4	62	111	8.2	60	111	7.9
2200	24	74	119	9.9	71	119	9.5	69	120	9.2
	23	70	116	9.3	67	116	8.9	65	116	8.6
	22	66	113	8.7	63	113	8.4	61	112	8.1
	21	61	109	8.1	59	109	7.9	57	108	7.6
2100	24	71	117	9.4	68	117	9.0	66	117	8.7
	23	67	114	8.8	65	114	8.5	62	113	8.2
	22	63	110	8.3	61	110	8.0	59	110	7.8
	21	59	106	7.8	57	106	7.5	55	106	7.3
	20	55	102	7.3	53	102	7.1	51	101	6.9
	19	51	98	6.9	49	97	6.7	47	96	6.6
	18	47	93	6.5	45	92	6.3	44	90	6.2

Figure 5-7. Cruise Performance (Sheet 1 of 6)

CRUISE PERFORMANCE PRESSURE ALTITUDE 4000 FEET

CONDITIONS:
Recommended Lean Mixture
2500 Pounds
Cowl Flaps Closed

		20°C BELOW STANDARD TEMP -13°C			STANDARD TEMPERATURE 7°C			20°C ABOVE STANDARD TEMP 27°C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2500	23	---	---	---	76	125	10.2	73	125	9.8
	22	74	121	9.9	72	121	9.5	69	122	9.2
	21	70	118	9.2	67	118	8.9	65	118	8.6
	20	65	114	8.6	63	114	8.3	61	113	8.0
2400	24	---	---	---	79	127	10.6	76	127	10.2
	23	77	123	10.3	74	123	9.9	72	124	9.6
	22	72	120	9.7	70	120	9.3	68	120	8.9
	21	68	116	9.0	66	116	8.7	63	116	8.4
2300	24	---	---	---	76	125	10.2	74	125	9.8
	23	75	121	10.0	72	122	9.6	70	122	9.2
	22	70	118	9.3	68	118	9.0	66	118	8.7
	21	66	115	8.7	64	114	8.4	62	114	8.1
2200	24	76	122	10.2	73	123	9.8	71	123	9.4
	23	72	119	9.6	69	120	9.2	67	120	8.9
	22	68	116	9.0	65	116	8.6	63	116	8.3
	21	64	112	8.4	61	112	8.1	59	112	7.8
2100	24	73	120	9.7	70	121	9.3	68	121	9.0
	23	69	117	9.1	67	117	8.8	64	117	8.5
	22	65	114	8.6	63	113	8.3	61	113	8.0
	21	61	110	8.0	59	110	7.8	57	109	7.5
	20	57	106	7.5	55	105	7.3	53	104	7.1
	19	53	101	7.1	51	101	6.9	49	99	6.7
	18	49	96	6.7	47	95	6.5	45	93	6.4
	17	45	91	6.3	43	89	6.2	42	86	6.0

Figure 5-7. Cruise Performance (Sheet 2 of 6)

CRUISE PERFORMANCE PRESSURE ALTITUDE 6000 FEET

CONDITIONS:
Recommended Lean Mixture
2500 Pounds
Cowl Flaps Closed

		20°C BELOW STANDARD TEMP -17°C			STANDARD TEMPERATURE 3°C			20°C ABOVE STANDARD TEMP 23°C		
RPM	MP	% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2500	23	---	---	---	78	128	10.5	75	129	10.1
	22	76	125	10.3	74	125	9.8	71	125	9.5
	21	72	121	9.5	69	121	9.2	67	121	8.8
	20	67	117	8.9	65	117	8.5	63	117	8.3
2400	23	---	---	---	76	127	10.2	74	127	9.8
	22	75	123	10.0	72	124	9.6	69	124	9.2
	21	70	120	9.3	67	120	8.9	65	120	8.6
	20	65	116	8.6	63	116	8.3	61	115	8.1
2300	23	77	125	10.3	74	125	9.9	71	125	9.5
	22	72	122	9.6	70	122	9.2	67	122	8.9
	21	68	118	9.0	65	118	8.6	63	118	8.4
	20	64	114	8.4	61	114	8.1	59	113	7.8
2200	23	74	123	9.9	71	123	9.5	69	123	9.1
	22	70	120	9.3	67	120	8.9	65	119	8.6
	21	66	116	8.7	63	116	8.3	61	115	8.1
	20	61	112	8.1	59	111	7.8	57	111	7.6
2100	23	71	121	9.4	68	121	9.1	66	121	8.7
	22	67	117	8.8	65	117	8.5	62	117	8.2
	21	63	113	8.3	61	113	8.0	59	113	7.8
	20	59	109	7.8	57	109	7.5	55	108	7.3
	19	55	105	7.3	53	104	7.1	51	103	6.9
	18	51	100	6.8	49	99	6.7	47	97	6.5
	17	46	94	6.5	45	92	6.3	43	90	6.2

Figure 5-7. Cruise Performance (Sheet 3 of 6)