

CRUISE PERFORMANCE - SPEED POWER

Figure 5-21

**Engine & Cruise Performance for Non-ISA OAT**  
**RPM for Constant 55% Power**  
**Fuel Flow: Best Economy Mixture 7.9 GPH**  
**Wheel Fairing Removed**

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots
	°C	°C	°F		
Sea Level	ISA -15	0	32	2210	92
	ISA	15	59	2250	
	ISA +10	25	77	2280	
	ISA +20	35	95	2300	
	ISA +30	45	113	2330	
2000	ISA -15	-4	25	2260	94
	ISA	11	52	2300	
	ISA +10	21	70	2320	
	ISA +20	31	88	2350	
	ISA +30	41	106	2370	
4000	ISA -15	-8	18	2300	96
	ISA	7	45	2340	
	ISA +10	17	63	2370	
	ISA +20	27	81	2400	
	ISA +30	37	99	2420	
6000	ISA -15	-12	10	2350	98
	ISA	3	37	2390	
	ISA +10	13	55	2410	
	ISA +20	23	73	2440	
	ISA +30	33	91	2480	
8000	ISA -15	-16	4	2390	100
	ISA	-1	31	2430	
	ISA +10	9	49	2460	
	ISA +17.5	18.5	62	2475	
9000	ISA -15	-18	0	2410	101
	ISA	-3	27	2450	
	ISA +8.5	5.5	42	2480	
10000	ISA -15	-20	-3	2430	102
	ISA	-5	24	2480	

## Example:

Cruise Altitude: 5000 ft

Cruise Temperature: 15 C (ISA + 10 C)

Engine Speed: 2390 RPM (By Interpolation)

True Airspeed: 100 KTAS (By Interpolation)

**ENGINE & CRUISE PERFORMANCE - 55%**

Figure 5-23

**Engine & Cruise Performance for Non-ISA OAT**  
**RPM for Constant 65% Power**  
**Fuel Flow: Best Economy Mixture 9.2 GPH**  
**Wheel Fairing Removed**

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots
	°C	°C	°F		
Sea Level	ISA-15	0	32	2340	100
	ISA	15	59	2390	
	ISA +10	25	77	2420	
	ISA +20	35	95	2440	
	ISA +30	45	113	2470	
2000	ISA -15	-4	25	2390	103
	ISA	11	52	2440	
	ISA +10	21	70	2460	
	ISA +20	31	88	2490	
	ISA +30	41	106	2520	
4000	ISA -15	-8	18	2440	105
	ISA	7	45	2480	
	ISA +10	17	63	2510	
	ISA +20	27	81	2540	
	ISA +30	37	99	2560	
6000	ISA -15	-12	10	2490	107
	ISA	3	37	2530	
	ISA +10	13	55	2560	
	ISA +20	23	73	2580	
	ISA +30	33	91	2600	
8000	ISA -15	-16	4	2530	109
	ISA	-1	31	2580	
	ISA +10	9	49	2610	
	ISA +17.5	16.5	62	2630	
9000	ISA -15	-18	0	2560	110
	ISA	-3	27	2600	
	ISA +8.5	5.5	42	2630	
10000	ISA -15	-20	-3	2580	112

## Example:

Cruise Altitude: 5000 ft

Cruise Temperature: 15 C (ISA + 10 C)

Engine Speed: 2535PM (By Interpolation)

True Airspeed: 109 KTAS (By Interpolation)

**ENGINE & CRUISE PERFORMANCE - 65%**

Figure 5-23a

**Engine & Cruise Performance for Non-ISA OAT  
RPM for Constant 75% Power  
Fuel Flow: Best Power Mixture 11.4 GPH  
Wheel Fairing Removed**

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots
	°C	°C	°F		
Sea Level	ISA-15	0	32	2460	106
	ISA	15	59	2510	
	ISA +10	25	77	2540	
	ISA +20	35	95	2560	
	ISA +30	45	113	2590	
2000	ISA -15	-4	25	2510	108
	ISA	11	52	2560	
	ISA +10	21	70	2590	
	ISA +20	31	88	2620	
	ISA +30	41	106	2640	
3000	ISA -15	-6	21	2540	109
	ISA	9	48	2580	
	ISA +10	19	66	2610	
	ISA +20	29	84	2640	
4000	ISA -15	-8	18	2560	110
	ISA	7	45	2610	
	ISA +10	17	63	2640	
5000	ISA -15	-10	14	2590	112
	ISA	5	41	2630	
6000	ISA -15	-12	10	2610	113
7000	ISA -15	-14	6.8	2640	114

## Example:

Cruise Altitude: 5000 ft  
 Cruise Temperature: 15 C (ISA + 10 C)  
 Engine Speed: 75% Power N/A

**ENGINE & CRUISE PERFORMANCE - 75%**

Figure 5-23b

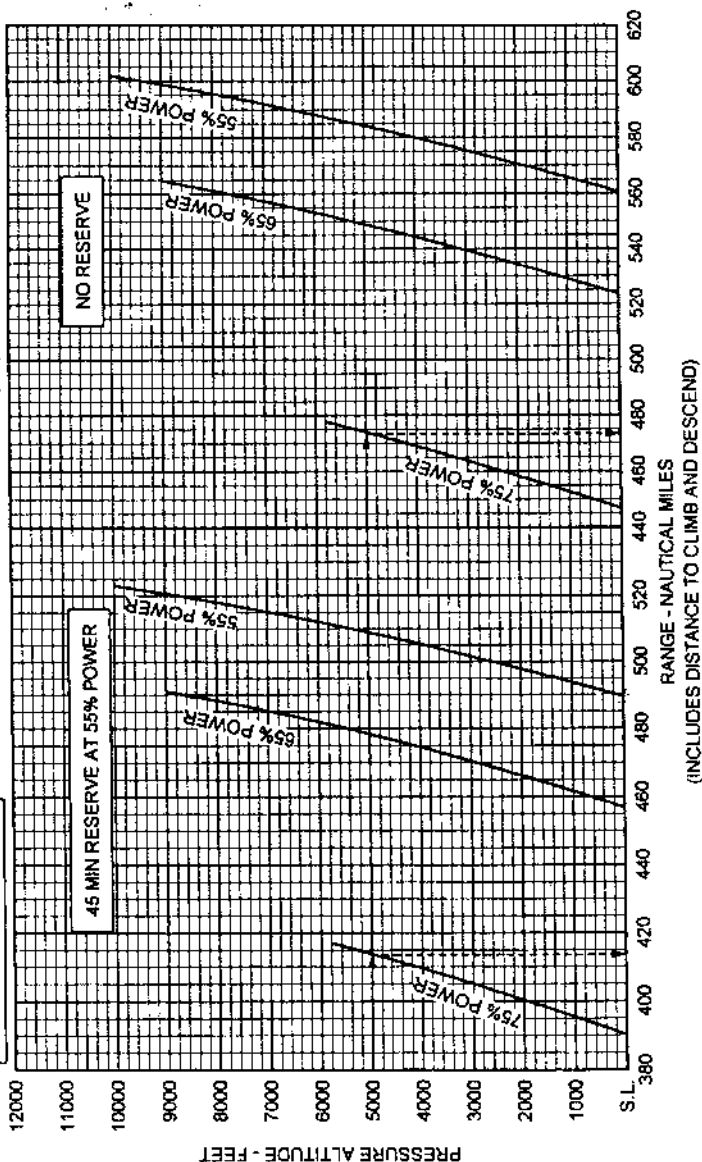
**RANGE**

**FUEL FLOW**  
Best Economy Mixture  
Best Power Mixture  
Best Power Mixture  
Note: See section 4.2.7 for mixture setting procedure

**POWER**  
55 & 65%  
75%  
Note: See section 4.2.7 for mixture setting procedure

**ASSOCIATED CONDITIONS:**  
48 GAL USABLE FUEL, 2202 LBS GROSS WT.  
WHEEL FAIRING REMOVED  
PROPELLER SENSNICH 740M6-0-80

**Example:**  
Cruise pressure altitude: 5000 ft.  
Cruise power: 75% Best Power Mixture  
Range w/ 45 min reserve @ 55% power: 414 NM  
Range w/o reserve: 474 NM



**RANGE**  
Figure 5-25

**ENDURANCE**

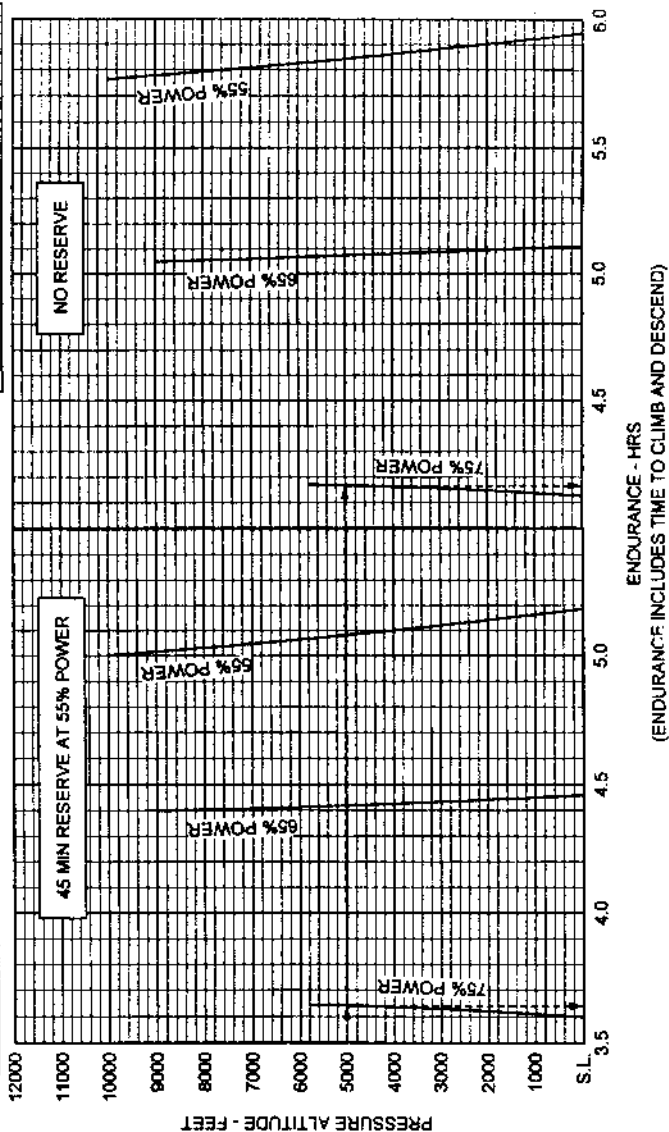
**POWER** FUEL FLOW

55 & 65% Best Economy Mixture  
75% Best Power Mixture  
Note: See section 4.2.7 for mixture setting procedure

ASSOCIATED CONDITIONS  
48 GAL USABLE FUEL, 2202 LB GROSS WT.  
WHEEL FAIRING REMOVED  
PROPELLER SENSENICH 74DM6-0-60

**Example:**

Cruise pressure altitude: 5000 ft.  
Cruise power: 75% best power mixture  
Endurance w/ 45 min. reserve @ 55% power: 3.65 hrs.  
Endurance w/o reserve: 4.17 hrs.



**ENDURANCE**

Figure 5-29