



DISPATCH RELEASE FORM

FILL IN THE BLANKS AND CHECK THE BOXES THAT APPLY TO YOUR FLIGHT.
BOTH SIDES MUST BE COMPLETED PRIOR TO DISPATCH RELEASE.

DATE AND TIME:

TAIL #:

DEPARTURE TIME:

RETURN TIME:

STUDENT NAME:

INSTRUCTOR NAME:

PASSENGER NAME(S):

PATTERN ☐ APPROACHES ☐ CROSS COUNTRY ☐

DUAL ☐ SOLO ☐ LOCAL ☐ CROSS COUNTRY ☐

PRAC AREA OR ROUTE:

WEATHER BRIEFING VMC ☐ IMC ☐

91.103: CHECK BOXES OF COMPLETED ITEMS

INFO: TIME: WIND: /

☐ NOTAMS ☐ PILOT DOCS

VIS: CEILING: TEMP/DP: /

☐ WT & BAL ☐ TO/LDG DATA

ALT: RETURN WEATHER VERIFIED: YES ☐

☐ ARROW ☐ FUEL REQUIRED

FLT PLN REQUIRED: ALTERNATE REQUIRED:
YES ☐ NO ☐ YES ☐ NO ☐

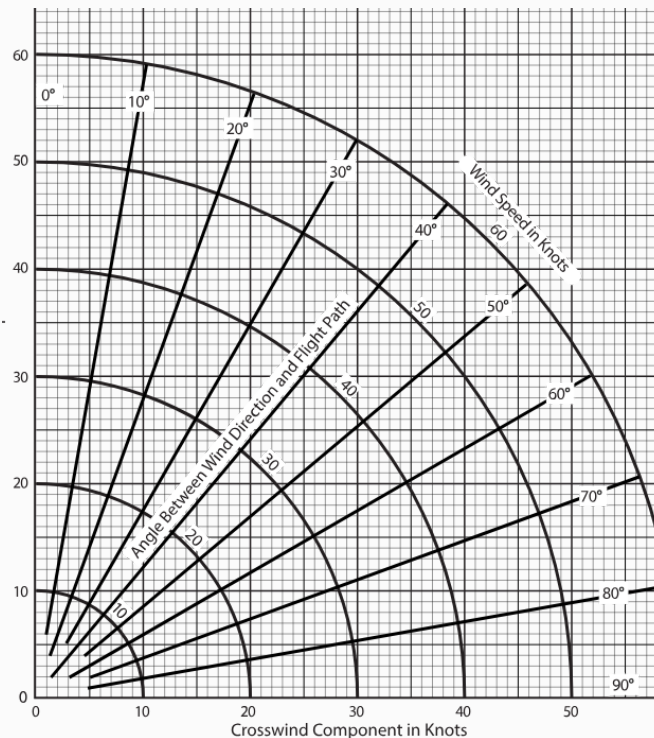
☐ A AVIATES 91.409 ☐ 50HR / 100HR
TIME LEFT ____ / ____

INSTRUCTOR SIGNATURE: _____

VERIFY ACCT: ☐

THIS SIDE MUST BE COMPLETED PRIOR INSTRUCTOR SIGNATURE AND DISPATCH RELEASE.

*RUNWAY #:	*LENGTH:
*PRESS ALT:	*DENS ALT:
*HEAD/TAIL COMP:	
*CROSSWIND COMP:	
*T.O. WEIGHT:	*LDG WEIGHT:
*T.O. ROLL:	50FT OBST:
*LDG ROLL:	50FT OBST:



TAKEOFF AND LANDING DATA

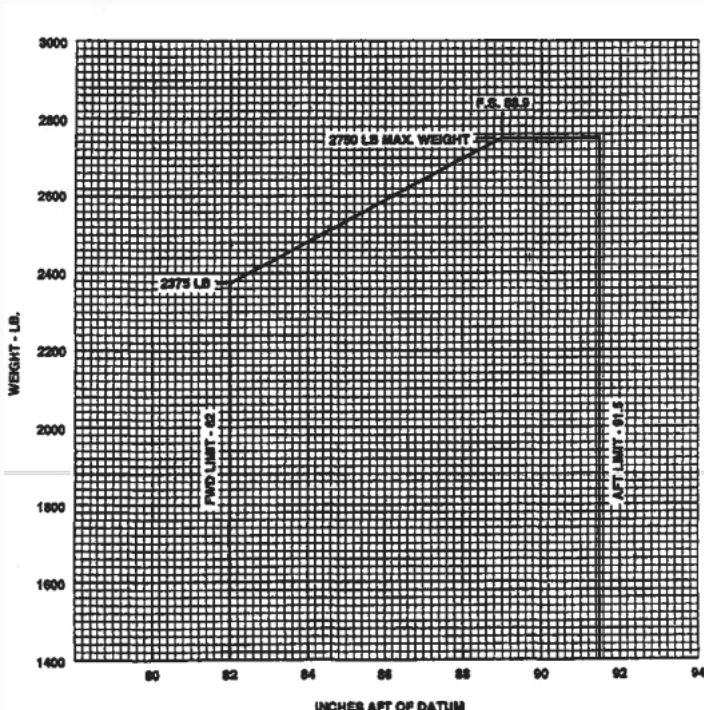
* = REQUIRED.

USE THE POH PERFORMANCE CHARTS TO COMPUTE TAKEOFF AND LANDING DATA.

DRY ERASE PERFORMANCE CHARTS AND MARKERS ARE LOCATED ON THE PREFLIGHT DOCUMENT TABLE IN DISPATCH.

*MANEUVERING SPEED: _____ KTS

$VA = \sqrt{(\text{CURRENT TAKEOFF WEIGHT} / \text{MAX GROSS TAKEOFF WEIGHT})} \times \text{PUBLISHED VA AT MAX GROSS}$



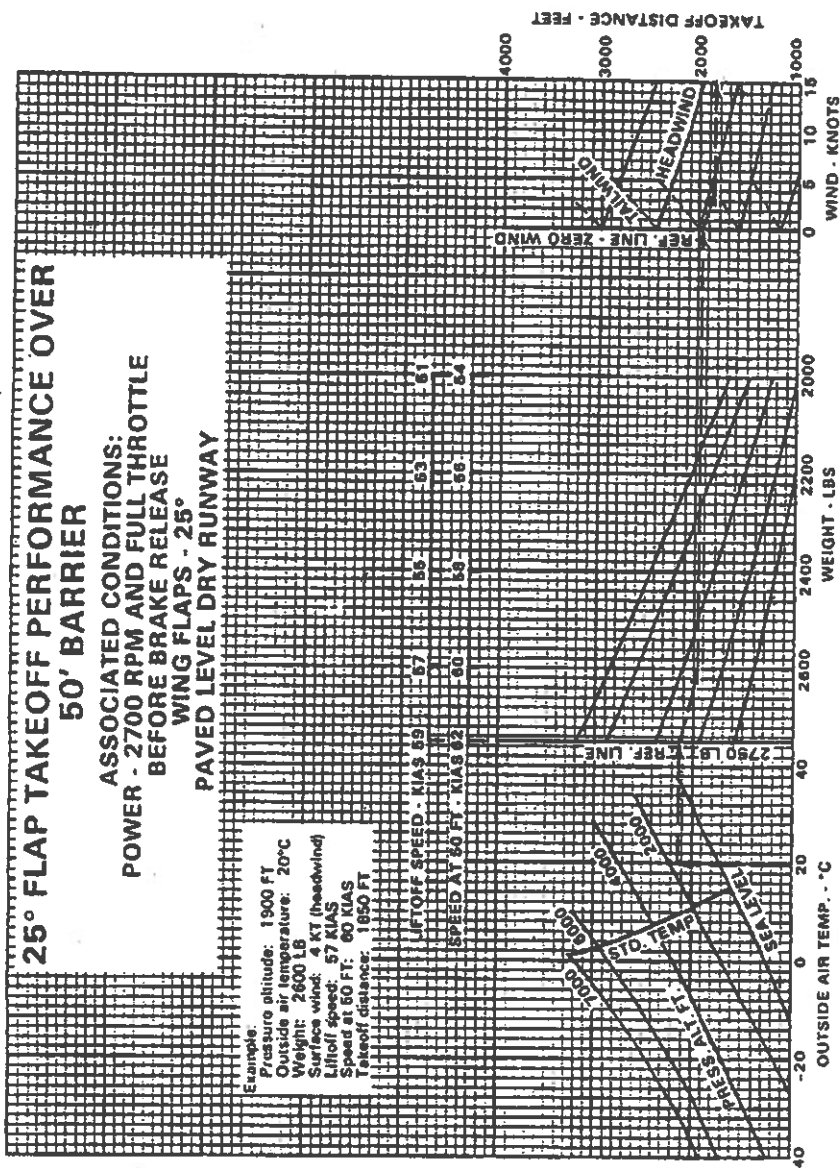
	WEIGHT	ARM	MOMENT
BASIC EMPTY WEIGHT			
PILOT AND FRONT PASSENGER		80.5	
BACK SEAT PASSENGERS		118.1	
BAGGAGE AREA		142.8	
ZERO FUEL WEIGHT			
FUEL (6LBS)		95.0	
RAMP WEIGHT			
TAXI FUEL BURN	-8	95.0	
TAKEOFF WEIGHT			
MOMENT CHANGE GEAR RETRACTION			
FUEL BURN IN FLIGHT (LBS)			
LANDING WEIGHT			

WEIGHT & BALANCE

THE BASIC EMPTY WEIGHT AND ARMS ARE DIFFERENT FOR EACH PLANE. ARMS AND WEIGHTS ARE LOCATED IN THE POH OR FSP IN THE AIRCRAFT PROFILE PICTURE.

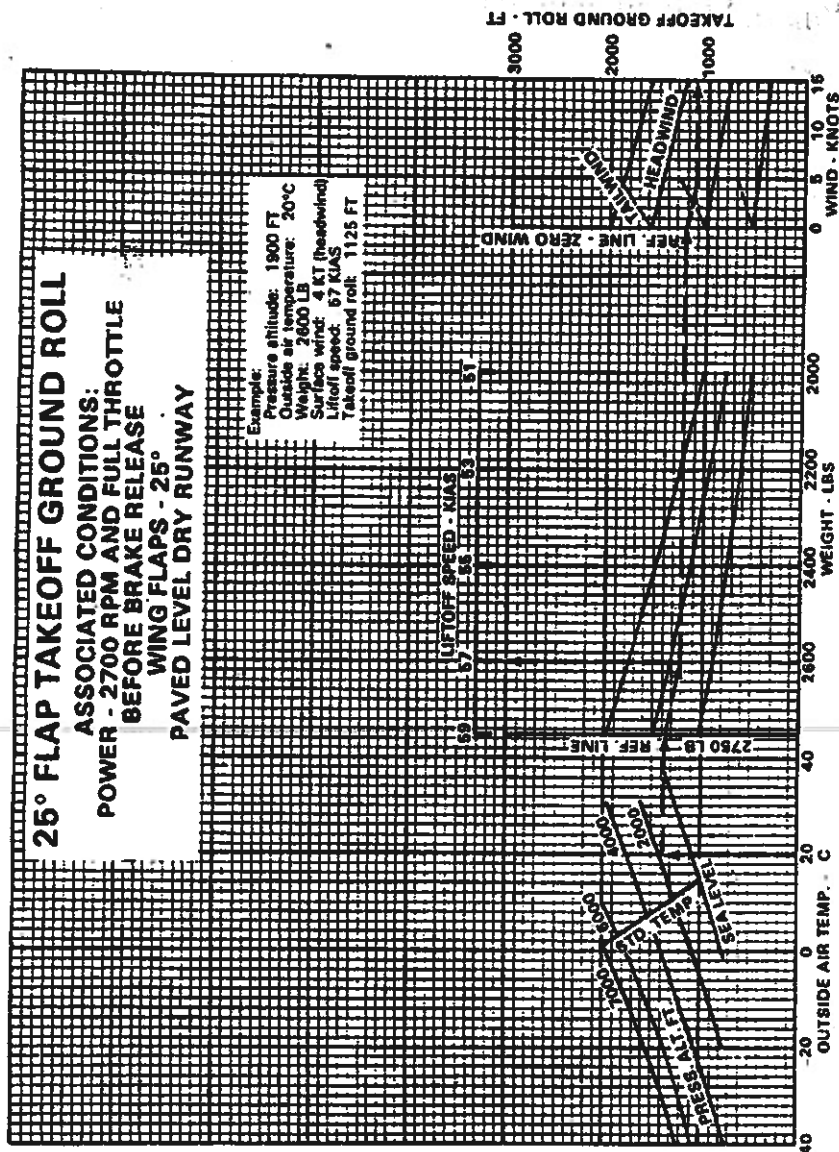
DETERMINE MOMENT BY MULTIPLYING WEIGHT X ARM.
DETERMINE ARM BY DIVIDING MOMENT BY WEIGHT.

PLEASE MARK TAKEOFF WEIGHT AND LANDING FUEL WEIGHT ON THE CG GRAPH BELOW TO ENSURE THAT YOU WILL BE WITHIN CG LIMITS THE ENTIRE FLIGHT.



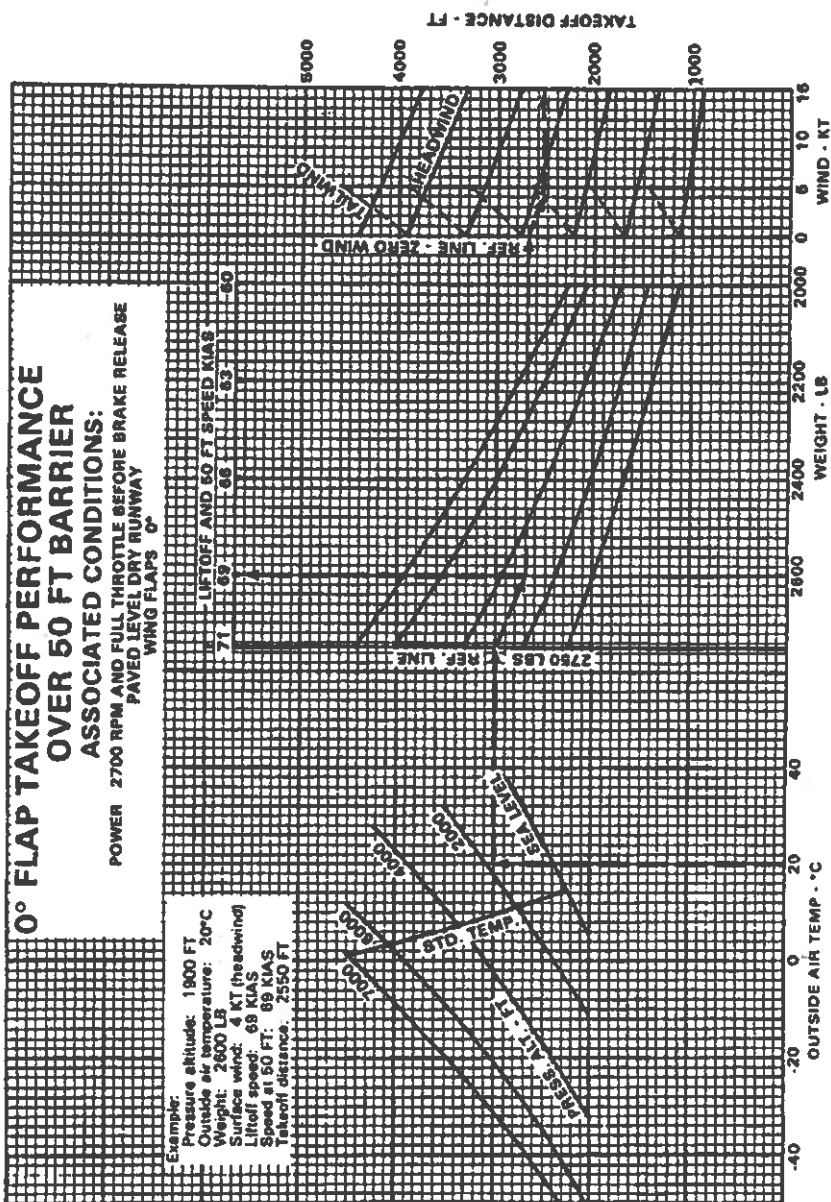
25° FLAP TAKEOFF PERFORMANCE

Figure 5-9



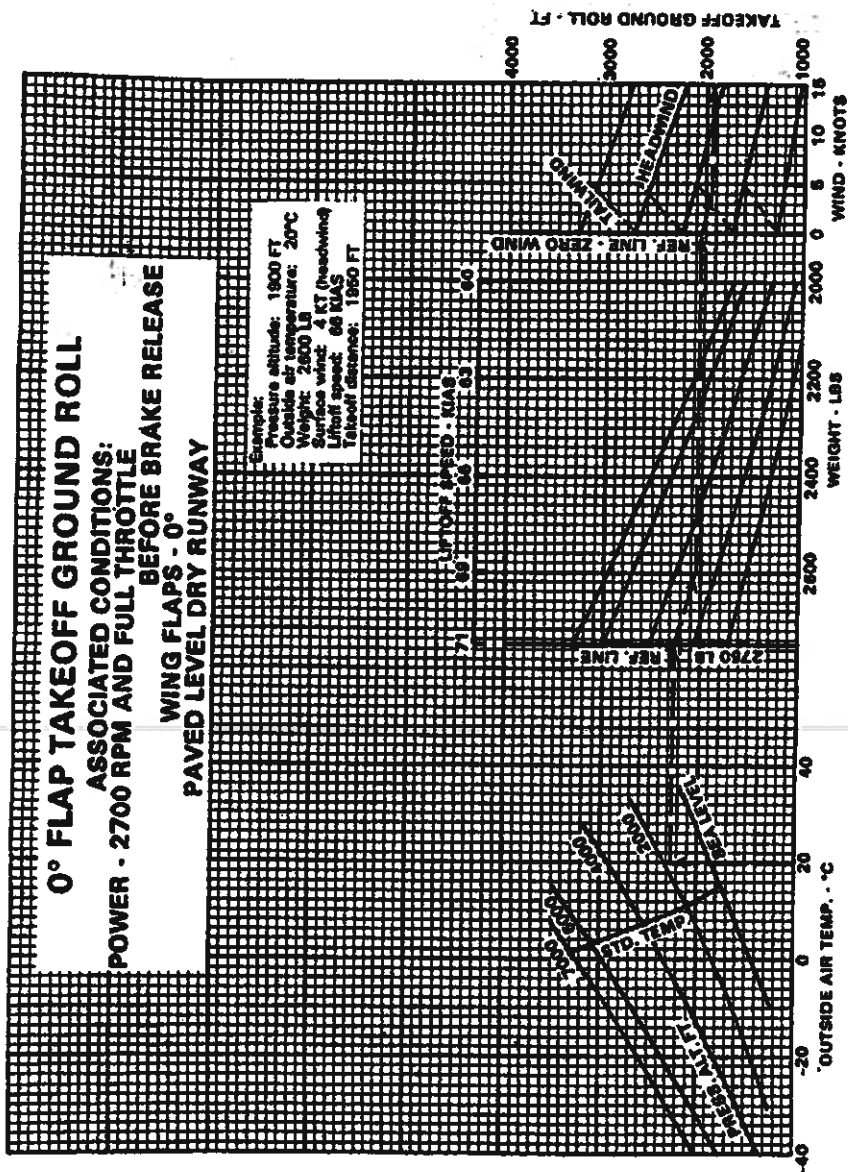
25° FLAP TAKEOFF GROUND ROLL

Figure 5-11



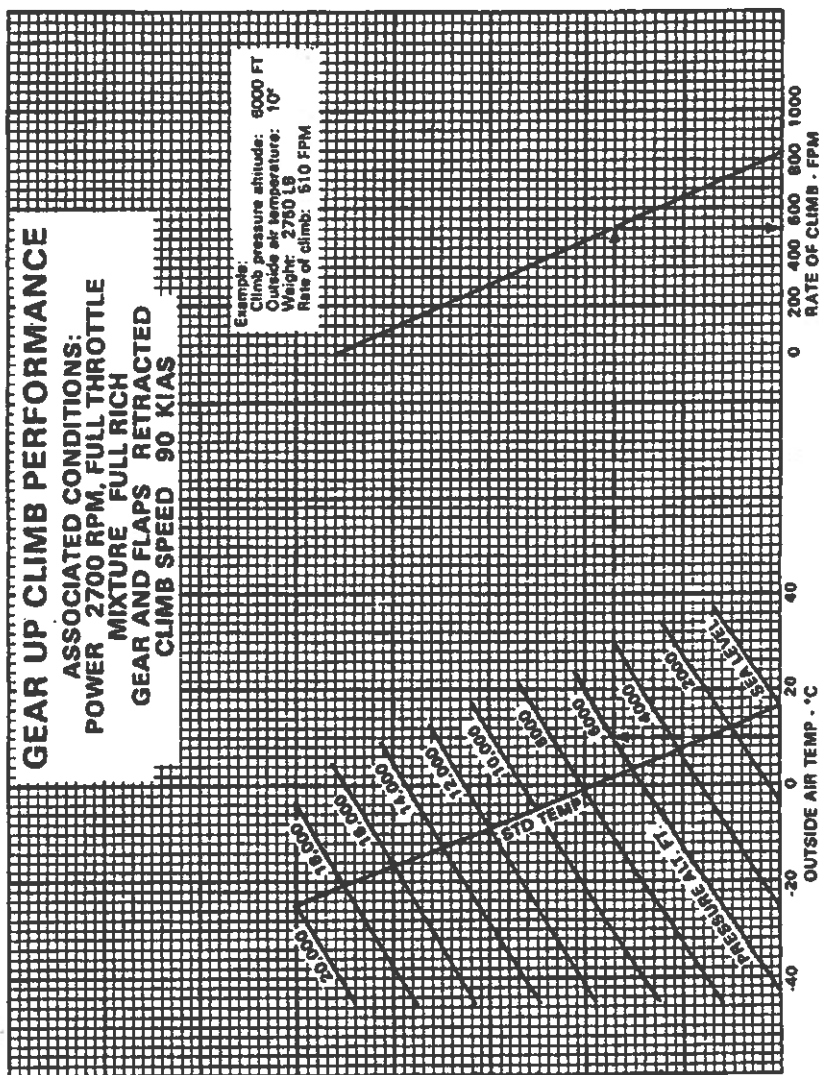
0° FLAP TAKEOFF PERFORMANCE

Figure 5-13



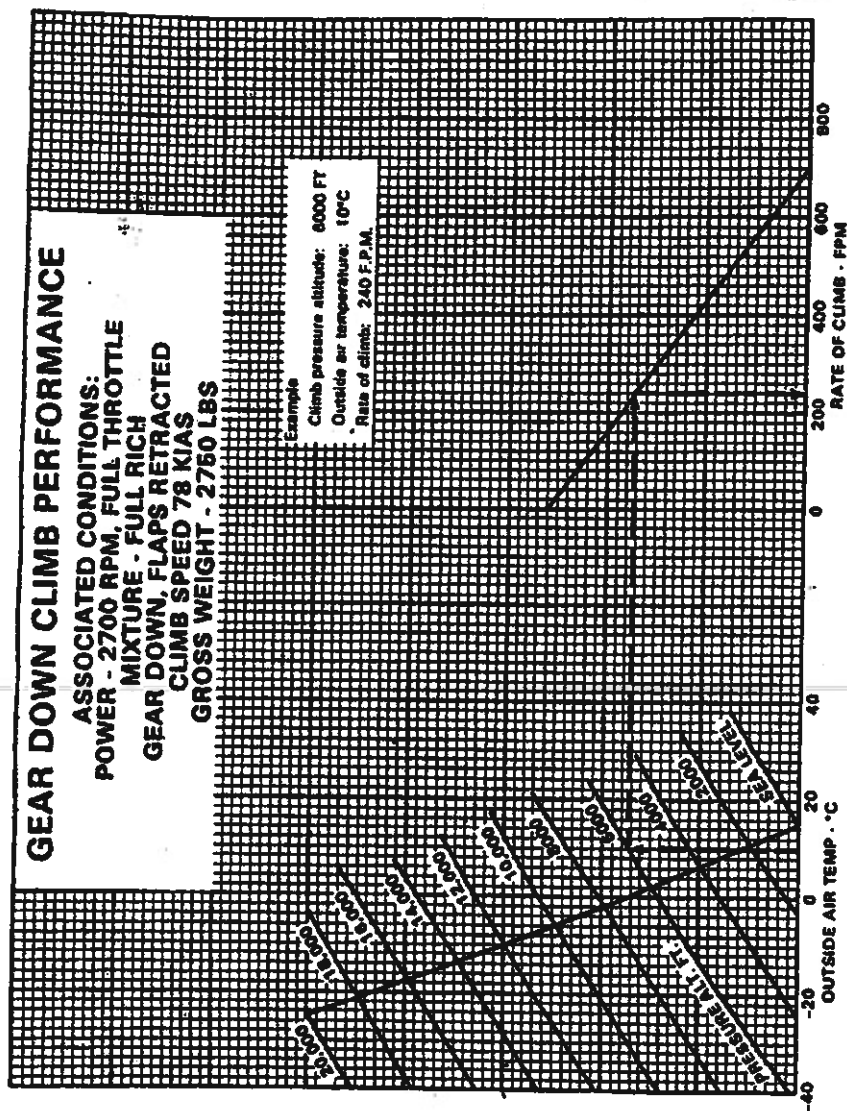
0° FLAP TAKEOFF GROUND ROLL

Figure 5-15



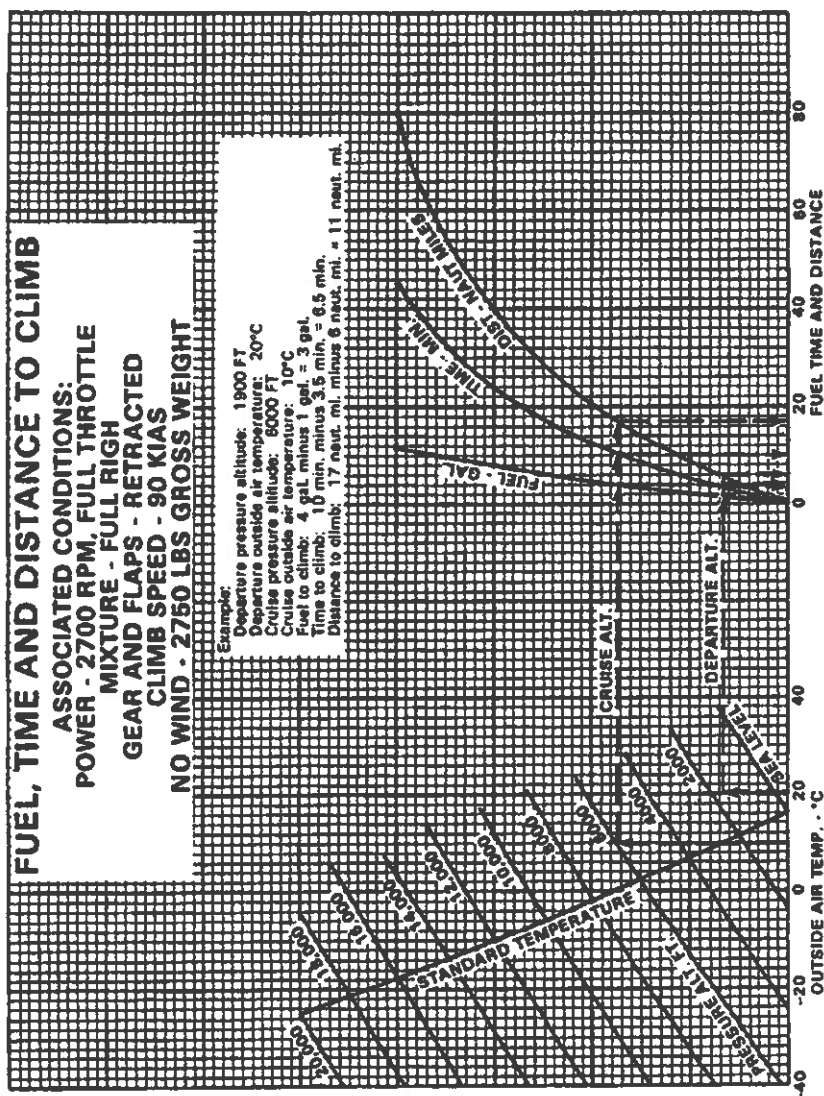
GEAR UP CLIMB PERFORMANCE

Figure 5-17



GEAR DOWN CLIMB PERFORMANCE

Figure 5-19



FUEL, TIME AND DISTANCE TO CLIMB

Figure 5-21

**Power Setting Table for Lycoming Model IO-360-C1C6
Engine as Installed in PA-28R-201 Arrow Best Power Mixture**

Pressure Altitude	ISA Temperature		55% power 110 BHP @ Prop Mixture Peak EGT + 100° F RPM and Manifold Press.		65% power 130 BHP @ Prop Mixture Peak EGT + 100° F RPM and Manifold Press.		75% power 150 BHP @ Prop Mixture Peak EGT + 100° F RPM and Manifold Press.		Pressure Altitude
	°F	°C	2200 RPM	2500 RPM	2200 RPM	2500 RPM	2200 RPM	2500 RPM	
Feet									Feet
S.L.	59	15		21.7		24.1		26.3	S.L.
1000	55	13		21.4		23.7		26.0	1000
2000	52	11		21.1		23.4		25.6	2000
3000	48	9		20.8		23.1		25.3	3000
4000	45	7		20.5		22.8		24.9	4000
5000	41	5		20.2		22.4		24.6	5000
6000	38	3		19.9		22.1		24.3	6000
6800	35	2		19.7		21.9		F.T.	6800
7000	34	1		19.6		21.8			7000
7500	32	0		19.4		21.6			7500
8000	30	-1		19.3		21.5			8000
9000	27	-3		19.0		21.1			9000
9400	25	-4		18.9		F.T.			9400
10000	23	-5		18.7					10000
11000	19	-7		18.4					11000
12000	16	-9		18.1					12000
13000	12	-11		17.8					13000
14000	9	-13		17.5					14000

Note:

To maintain constant power, correct manifold pressure approximately 0.16" Hg for each 10° F (5.5° C) variation in inlet air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard. Full throttle manifold pressure values may not be obtainable when atmospheric conditions are non-standard.

POWER SETTING TABLE (Best Power)

Figure 5-23

**Power Setting Table for Lycoming Model IO-360-C1C6
Engine as Installed in PA-28R-201 Arrow Best Economy Mixture**

Pressure Altitude	ISA Temperature		55% Power 110 BHP @ Propeller Mixture Peak EGT Manifold Pressure - In. Hg		65% Power 130 BHP @ Propeller Mixture Peak EGT Manifold Pressure - In. Hg		Pressure Altitude
	°F	°C	2200 RPM	2500 RPM	2200 RPM	2500 RPM	
Feet							Feet
S.L.	59	15					S.L.
1000	55	13	24.8	22.2	27.5	24.5	1000
2000	52	11	24.0	21.8	27.1	24.3	2000
3000	48	9	23.7	21.5	26.3	23.8	3000
4000	45	7	23.3	21.3	26.0	23.6	4000
5000	41	5	22.9	21.1	25.6	23.3	5000
5250	40	4	22.8	21.0	F.T.	23.2	5250
6000	38	3	22.5	20.8		23.1	6000
7000	34	1	22.1	20.6		22.8	7000
8000	30	-1	21.8	20.4		22.6	8000
8750	28	-2	21.5	20.2		F.T.	8750
9000	27	-3	F.T.	20.1			9000
10000	23	-5		19.9			10000
11000	19	-7		19.7			11000
12000	16	-8		F.T.			12000

Note: To maintain constant power, correct manifold pressure approximately 0.16" Hg for each 10° F (5.5° C) variation in inlet air temperature from standard altitude temperature. Add manifold pressure for air temperatures above standard; subtract for temperatures below standard. Full throttle manifold pressure values may not be obtainable when atmospheric conditions are non-standard.

POWER SETTING TABLE (Best Economy)
Figure 5-23a

BEST POWER CRUISE 75% POWER

MIXTURE: 100° F Rich of Peak EGT 2500 RPM
Fuel Flow 12.7 GPH Gear Up, Flaps Up, 2750 Pounds Gross Wt.

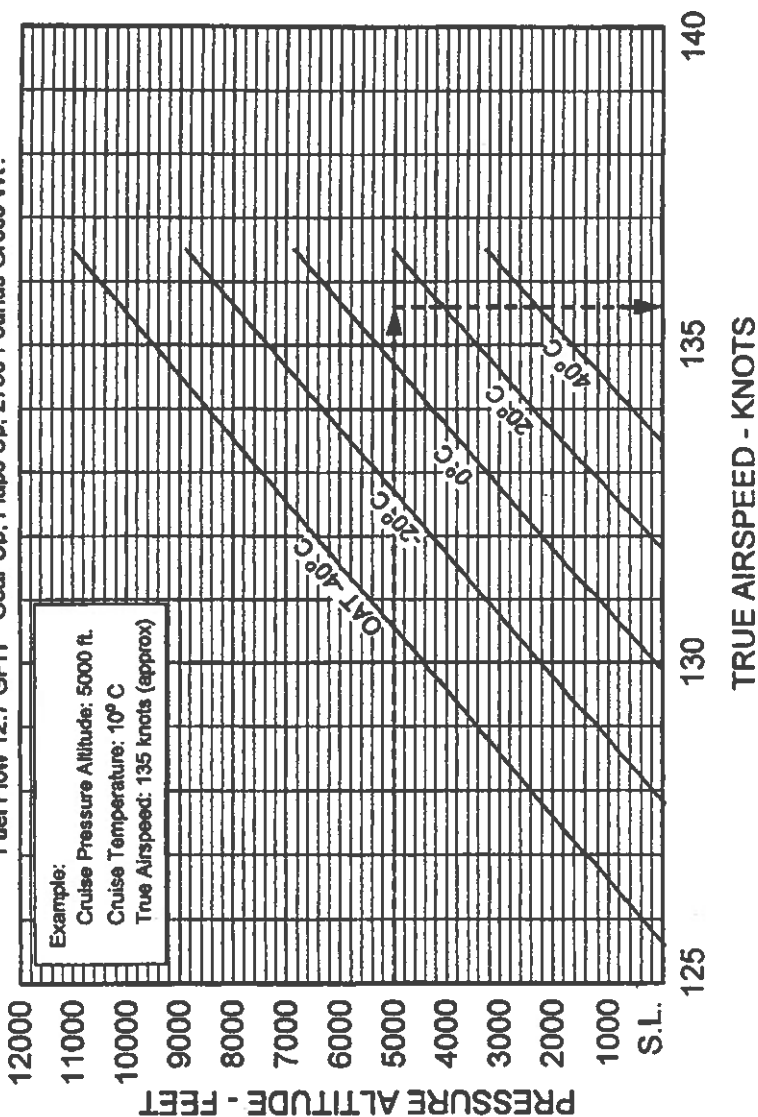
**BEST POWER CRUISE (75% Power)**

Figure 5-25

BEST POWER CRUISE 65% POWER

MIXTURE: 100° F Rich of Peak EGT 2500 RPM
Fuel Flow 11.4 GPH Gear Up, Flaps Up, 2750 Pounds Gross Wt.

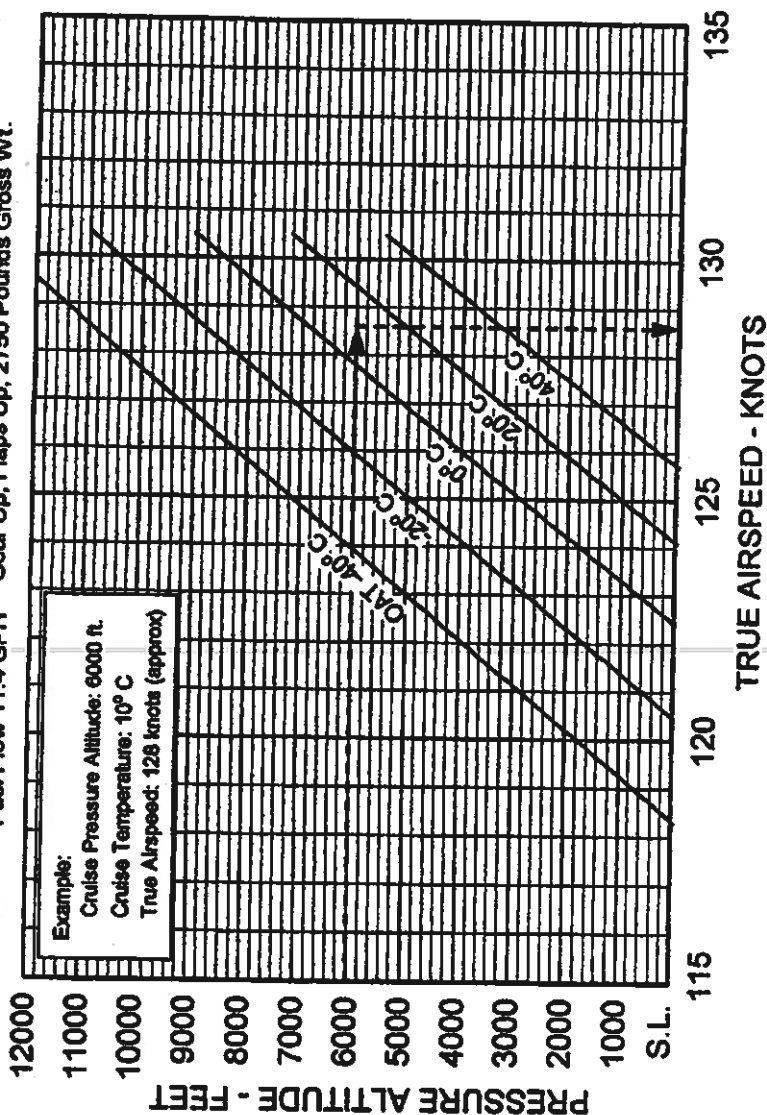
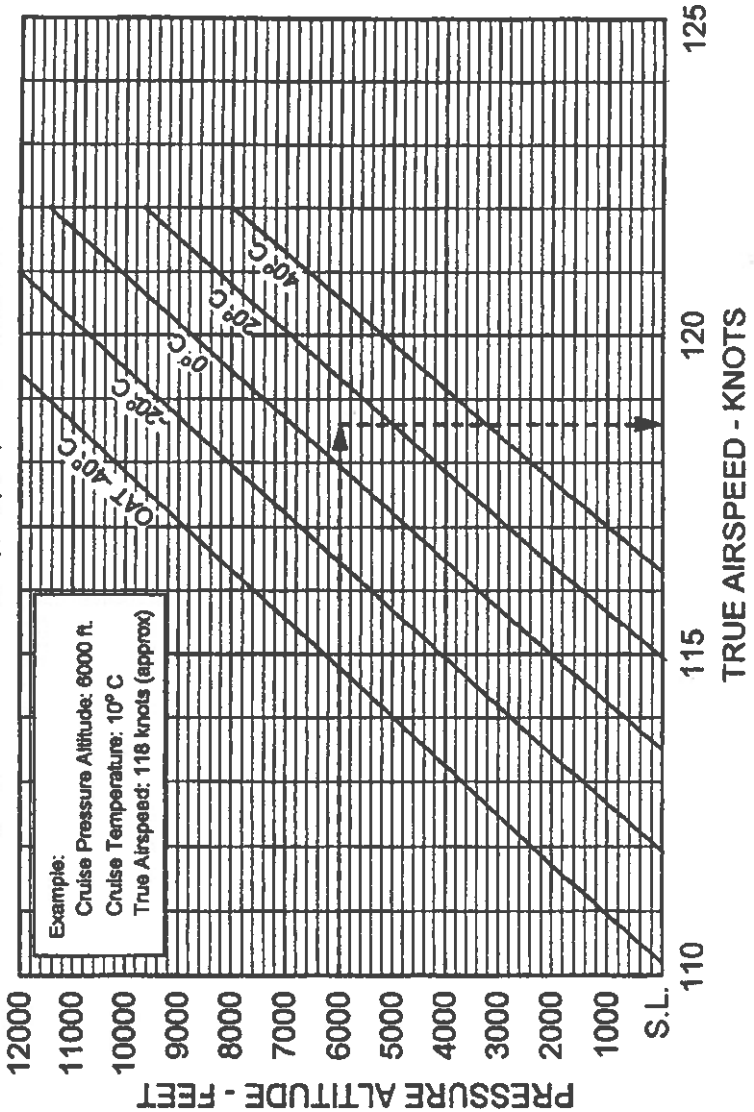
**BEST POWER CRUISE (65% Power)**

Figure 5-25a

BEST POWER CRUISE 55% POWER

MIXTURE: 100° F Rich of Peak EGT 2500 RPM

Fuel Flow 10.2 GPH Gear Up, Flaps Up, 2750 Pounds Gross Wt.



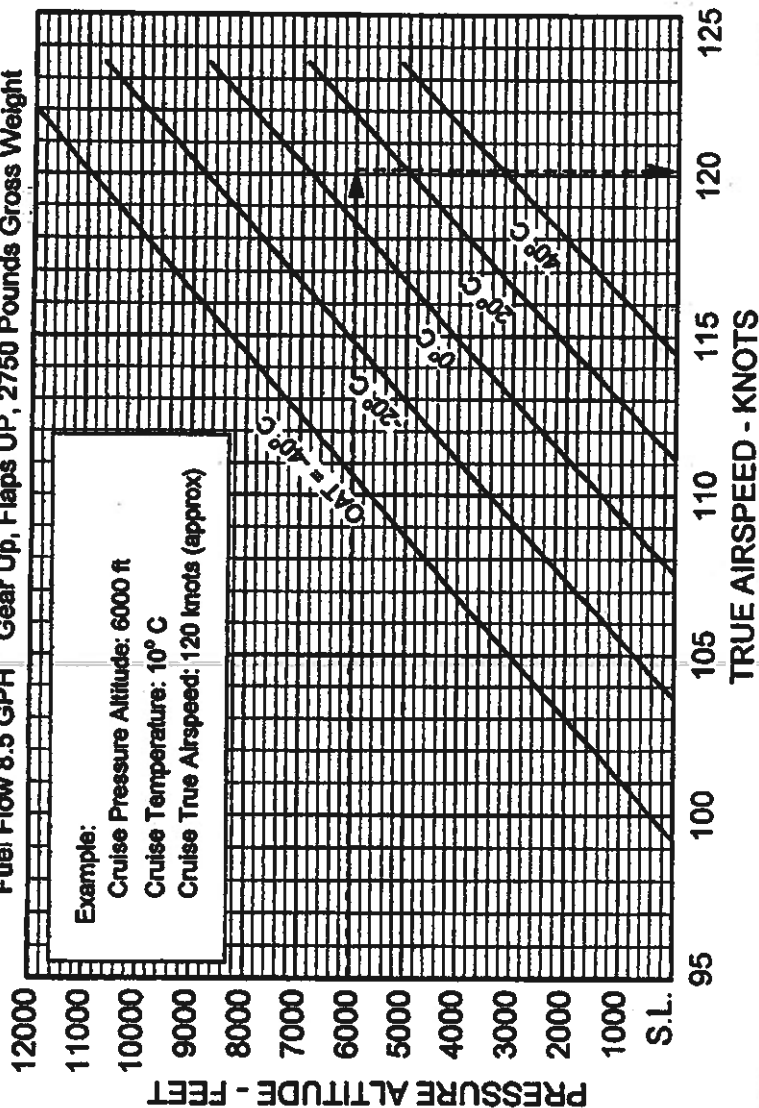
BEST POWER CRUISE (55% Power)

Figure 5-25b

ECONOMY CRUISE 55% POWER

MIXTURE: PEAK EGT CRUISE RPM: 2200

Fuel Flow 8.5 GPH Gear Up, Flaps UP, 2750 Pounds Gross Weight

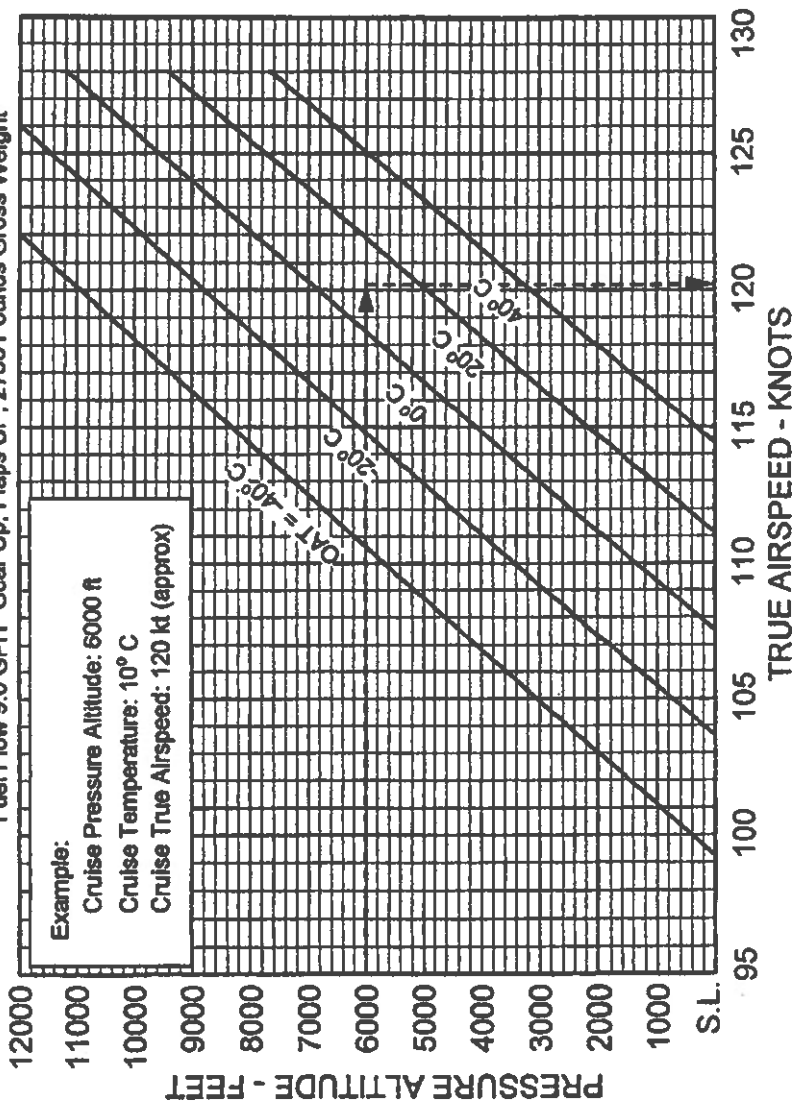


ECONOMY CRUISE (55% Power 2200 RPM)

Figure 5-27

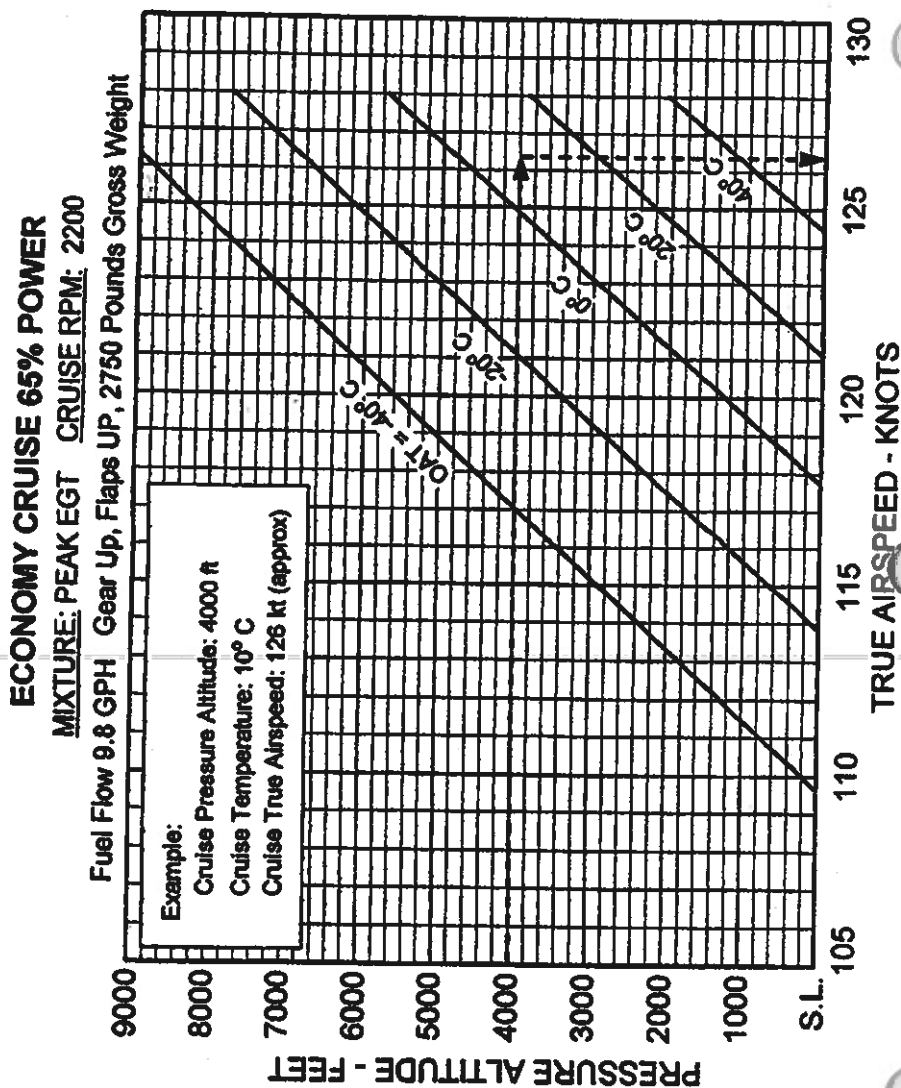
ECONOMY CRUISE 55% POWER

MIXTURE: PEAK EGT CRUISE RPM: 2500
Fuel Flow 9.0 GPH Gear Up, Flaps UP, 2750 Pounds Gross Weight



ECONOMY CRUISE (55% Power 2500 RPM)

Figure 5-27a



ECONOMY CRUISE (65% Power 2200 RPM)

Figure 5-27b

ECONOMY CRUISE 65% POWER

MIXTURE: PEAK EGT CRUISE RPM: 2500

Fuel Flow 10.3 GPH Gear Up, Flaps UP, 2750 Pounds Gross Weight

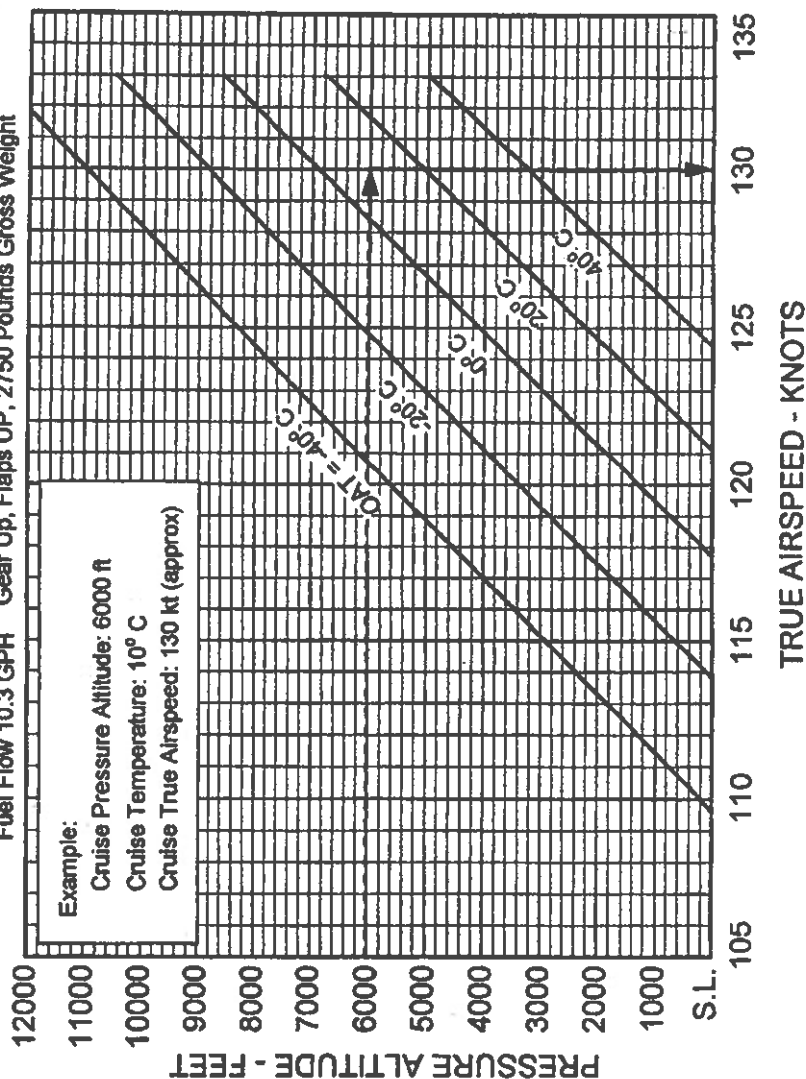
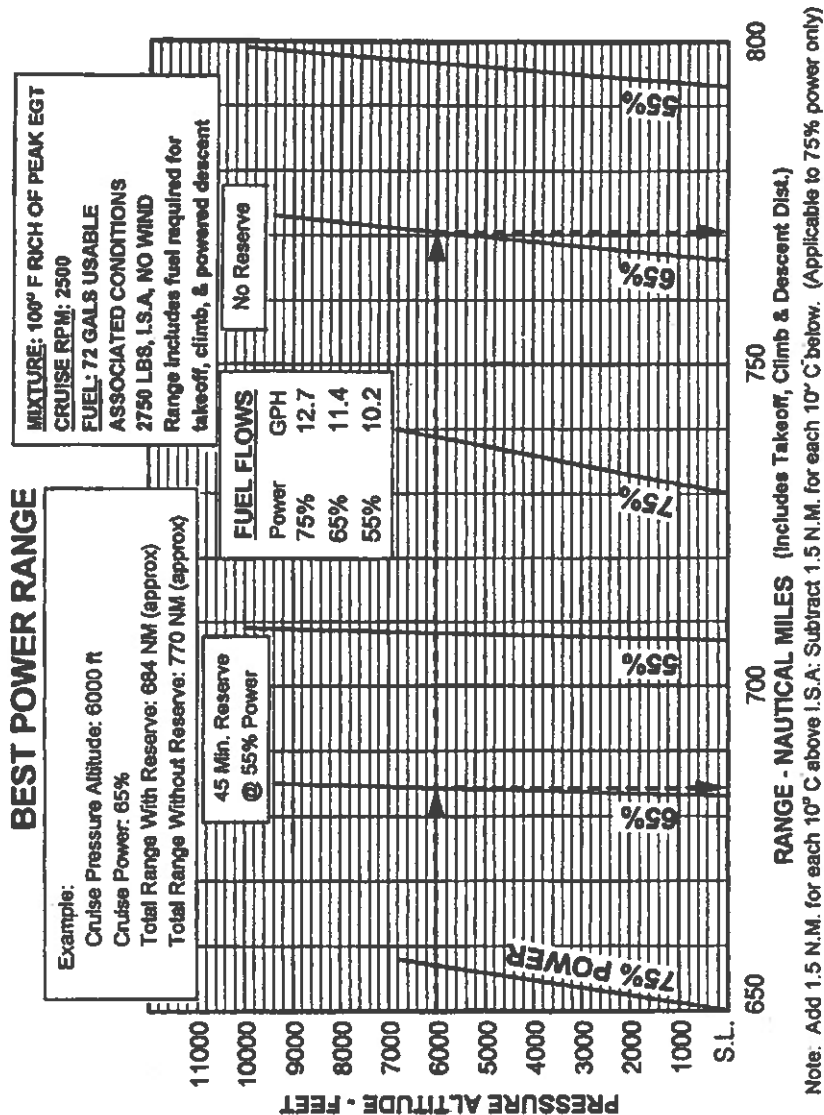
**ECONOMY CRUISE (65% Power 2500 RPM)**

Figure 5-27c

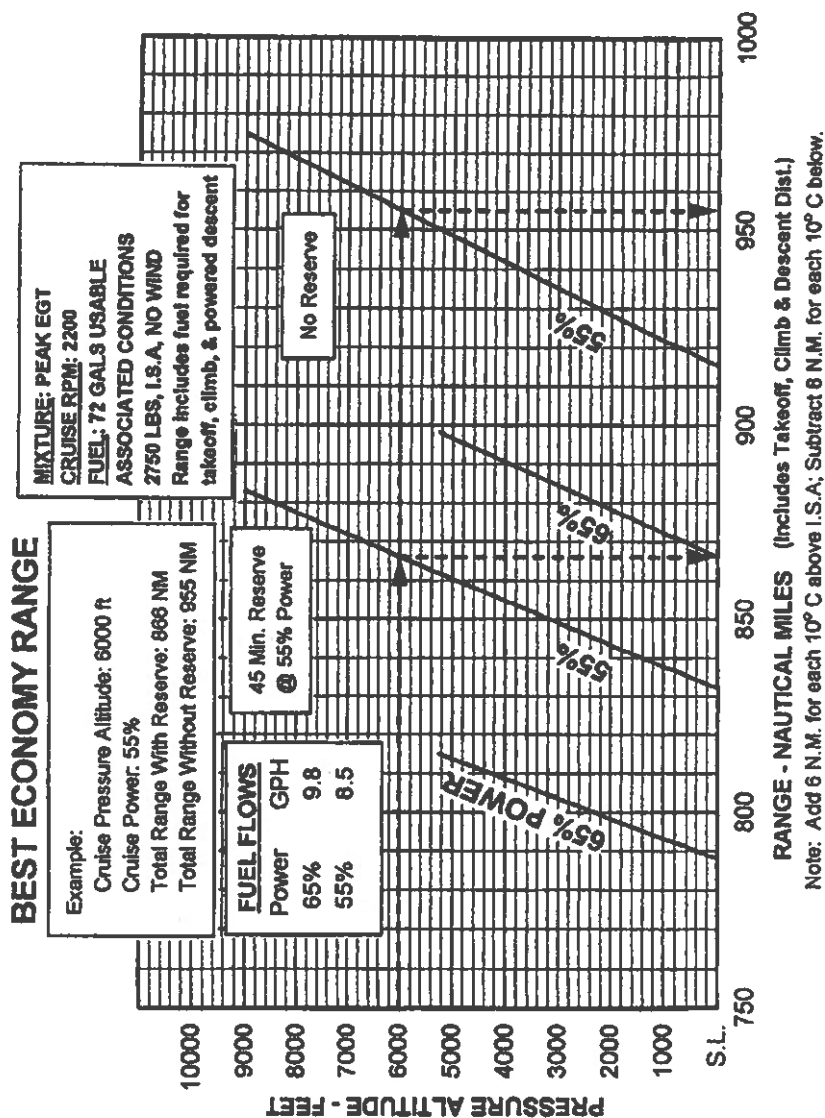


BEST POWER RANGE (2500 RPM)
Figure 5-29

PA-28R-201, ARROW

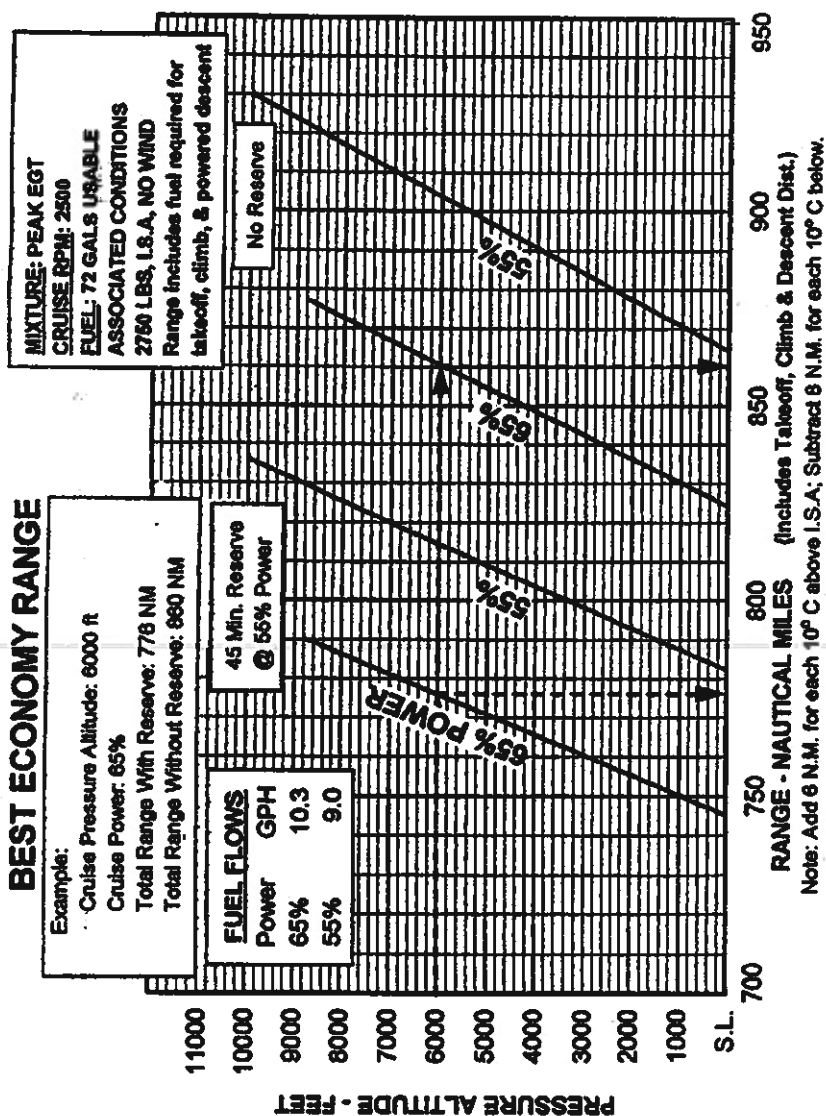


Figure 5-29a



BEST ECONOMY RANGE (2200 RPM)

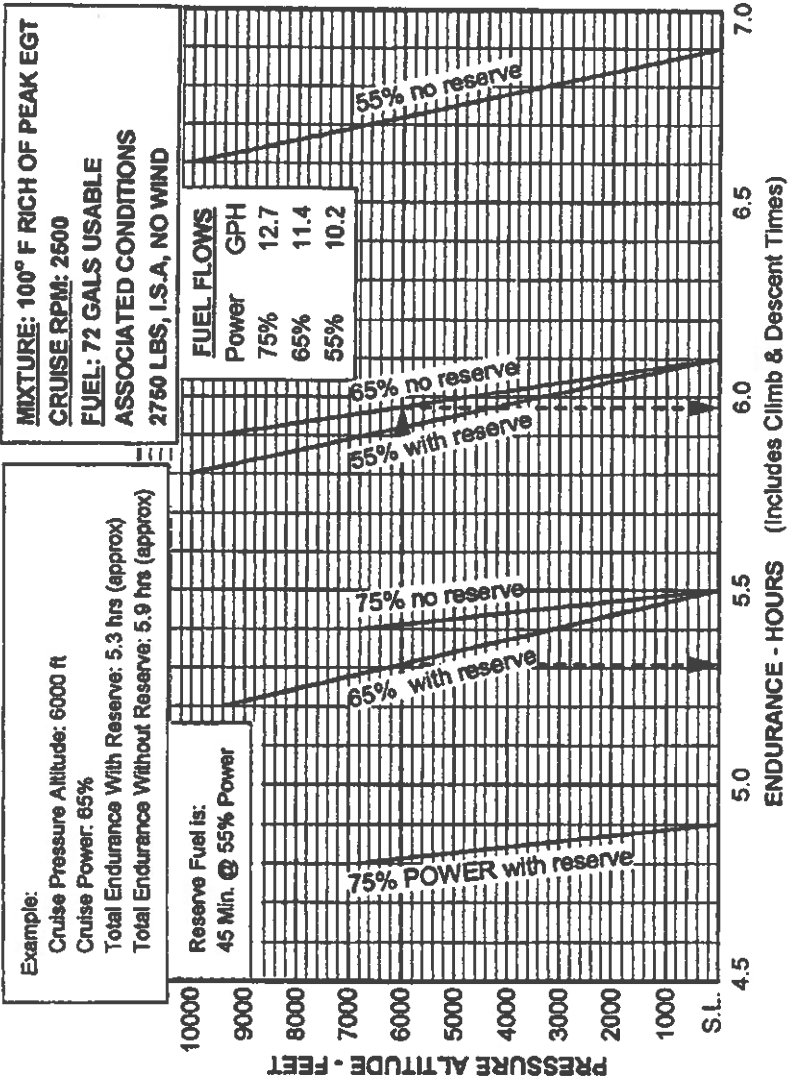
Figure 5-31



BEST ECONOMY RANGE (2500 RPM)

Figure 5-31a

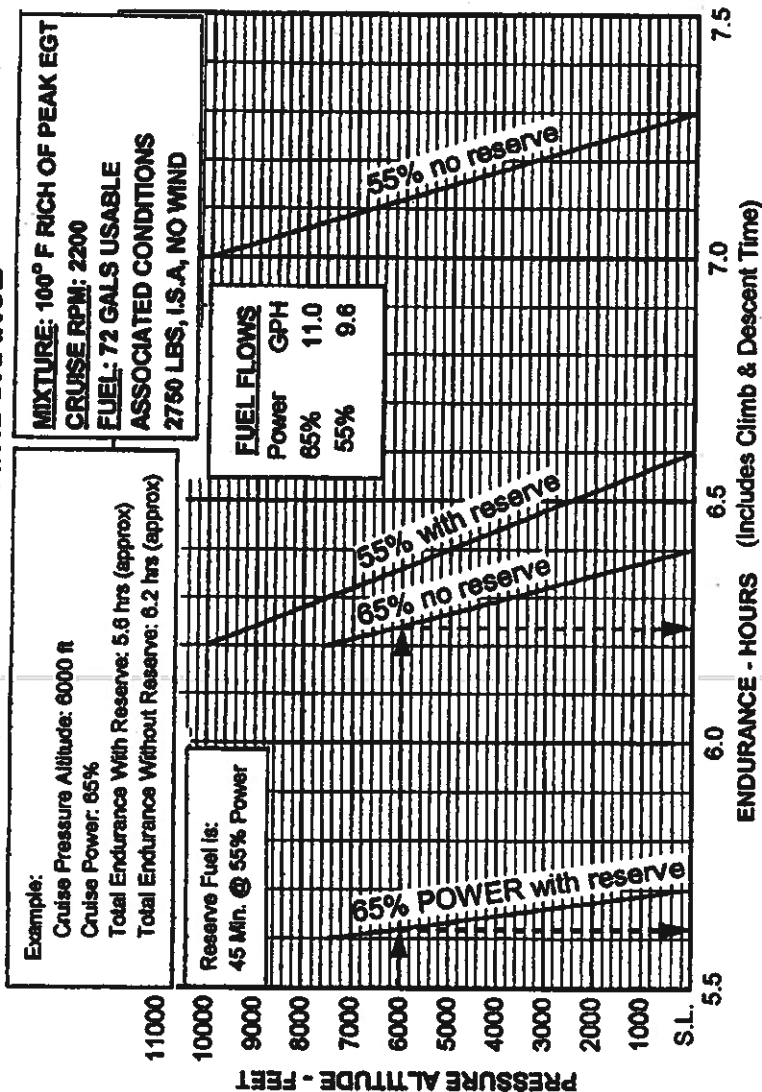
BEST POWER ENDURANCE



BEST POWER ENDURANCE (2500 RPM)

Figure 5-33

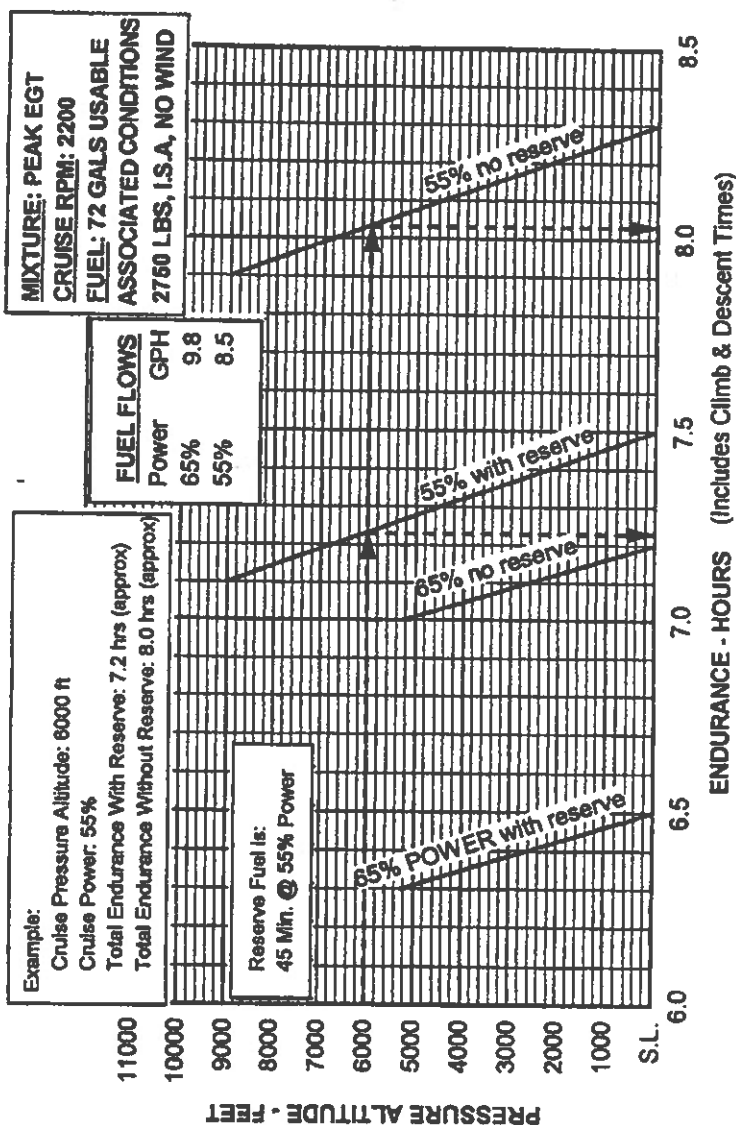
BEST POWER ENDURANCE



BEST POWER ENDURANCE (2200 RPM)

Figure 5-33a

BEST ECONOMY ENDURANCE



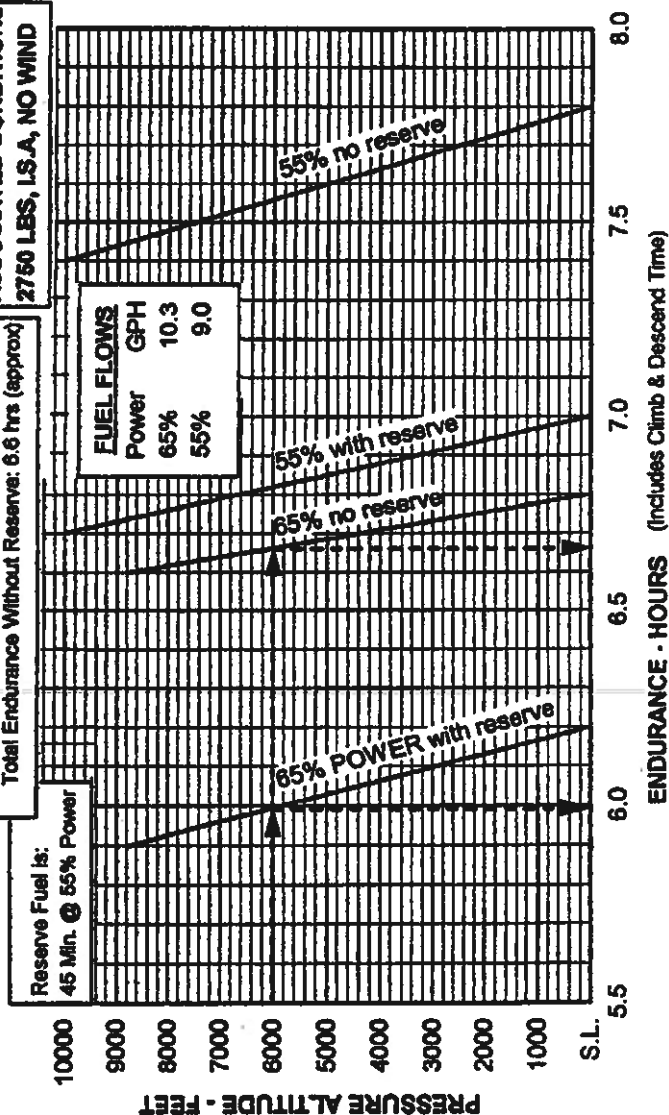
BEST ECONOMY ENDURANCE (2200 RPM)

Figure 5-33b

BEST ECONOMY ENDURANCE

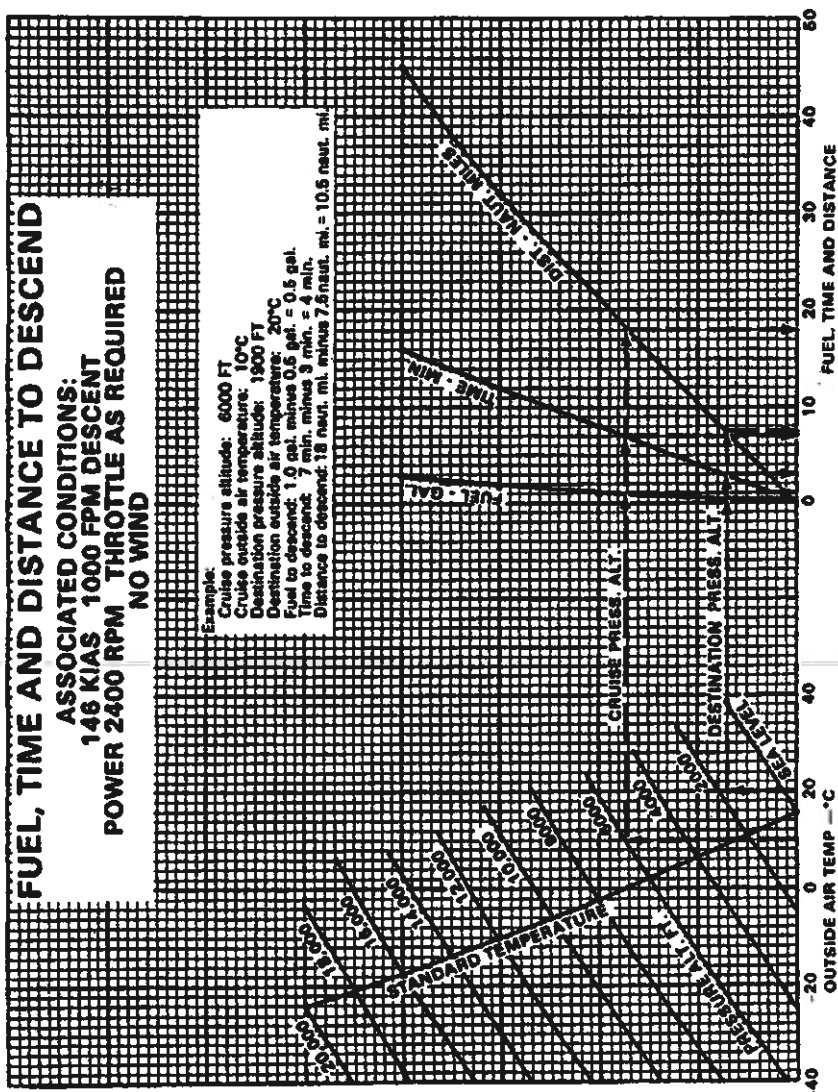
MIXTURE: PEAK EGT
CRUISE RPM: 2500
FUEL: 72 GALS USABLE
ASSOCIATED CONDITIONS
2750 LBS, I.S.A, NO WIND

Example:
Cruise Pressure Altitude: 6000 ft
Cruise Power: 65%
Total Endurance With Reserve: 5.9 hrs (approx)
Total Endurance Without Reserve: 6.6 hrs (approx)



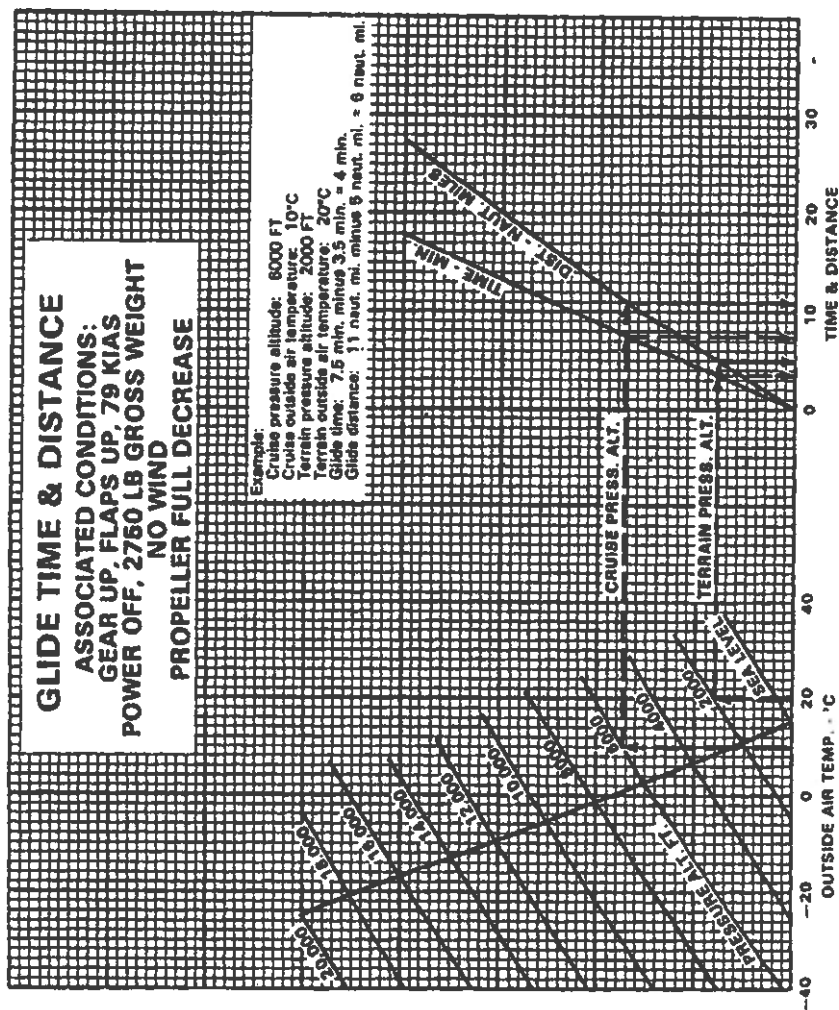
BEST ECONOMY ENDURANCE (2500 RPM)

Figure 5-33c



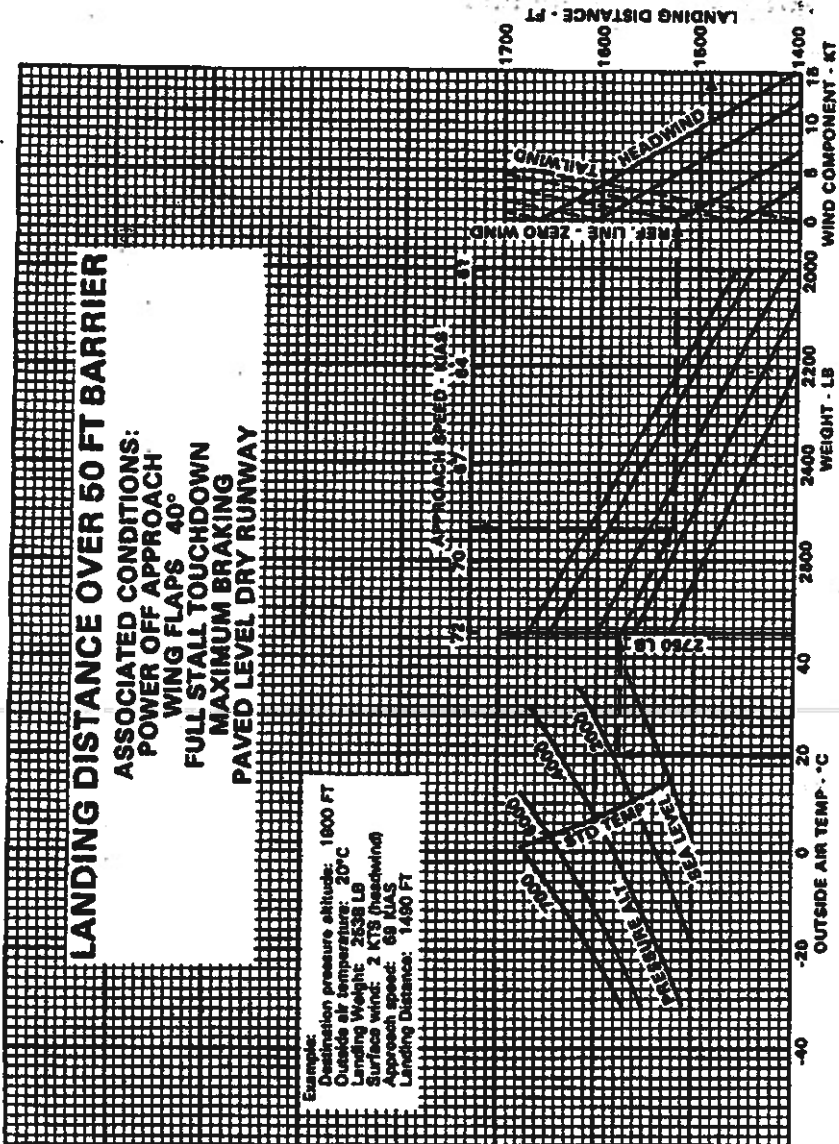
FUEL, TIME AND DISTANCE TO DESCEND

Figure 5-35



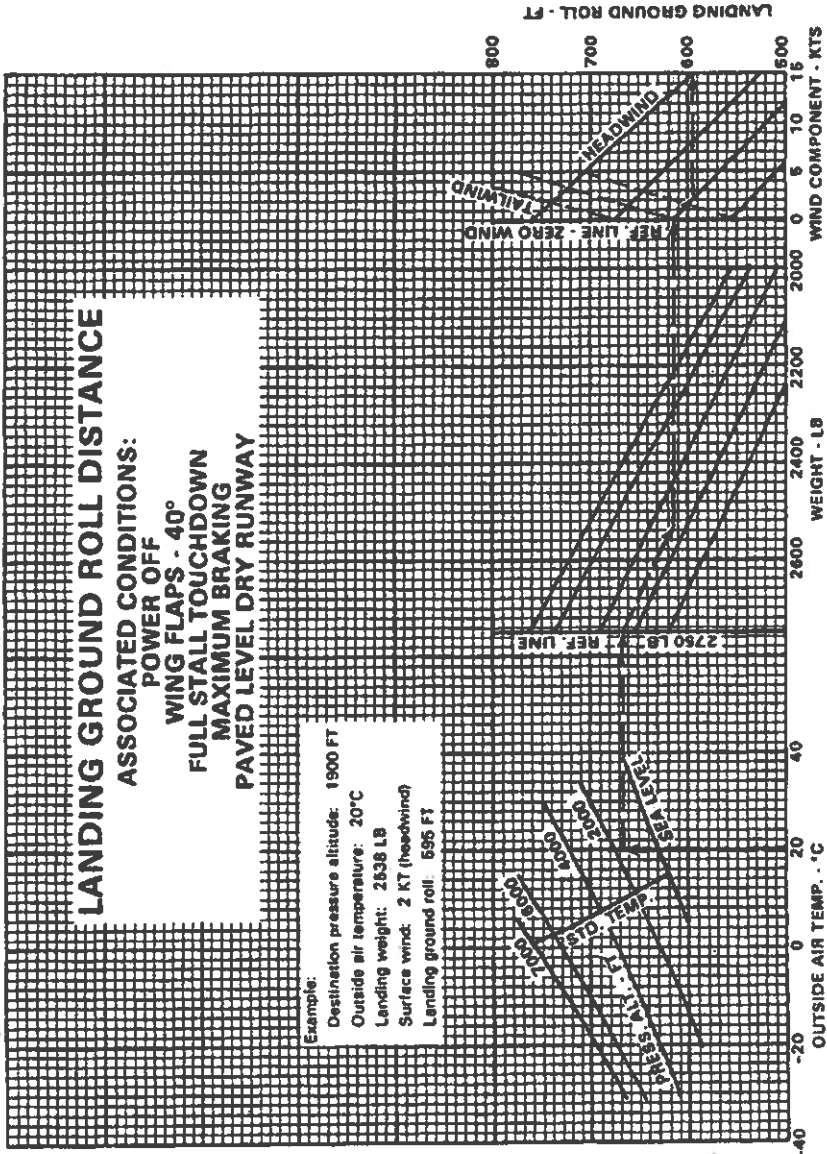
GLIDE TIME AND DISTANCE

Figure 5-37



LANDING DISTANCE OVER 50 FOOT BARRIER

Figure 5-39



LANDING GROUND ROLL DISTANCE
Figure 5-41