



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

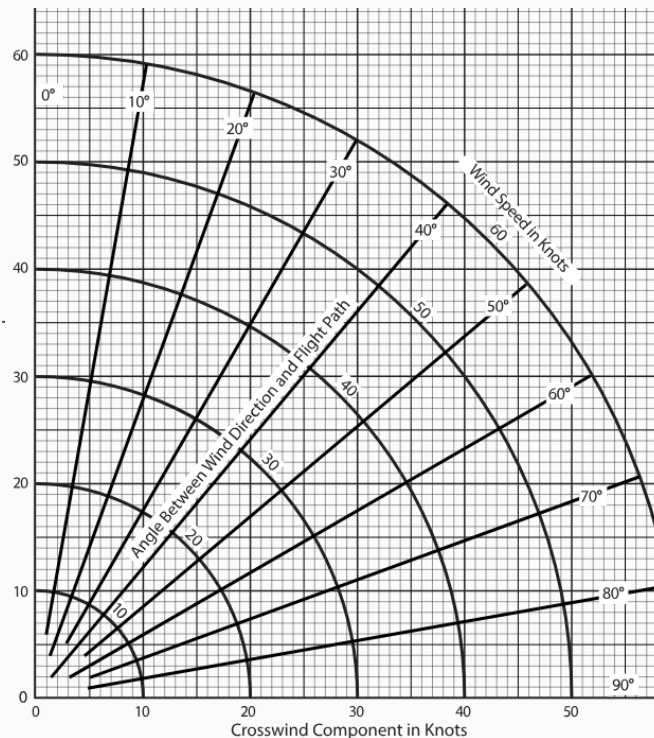
TIME LEFT ____ / ____

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.

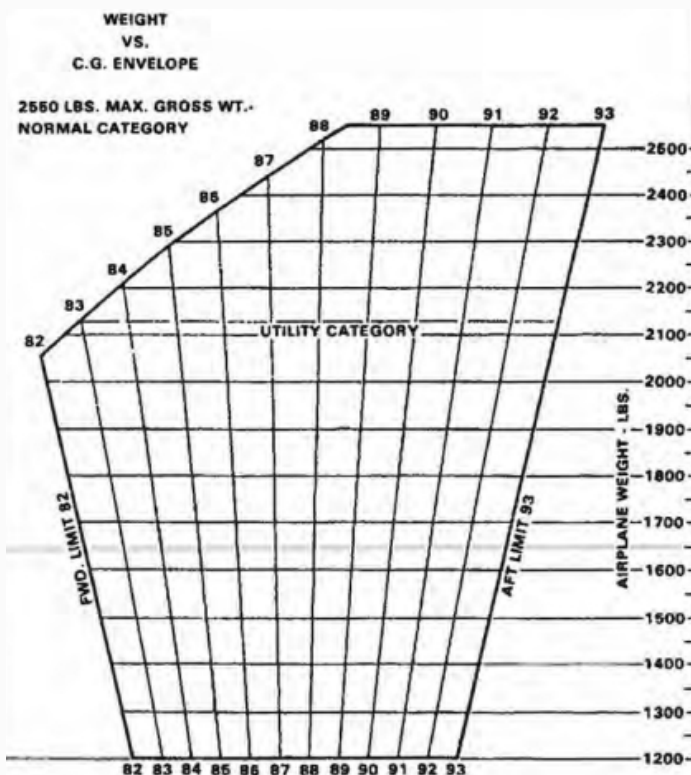
USE THE POH PERFORMANCE CHARTS TO COMPUTE
TAKEOFF AND LANDING DATA.

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			
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.

FLAPS UP TAKEOFF PERFORMANCE

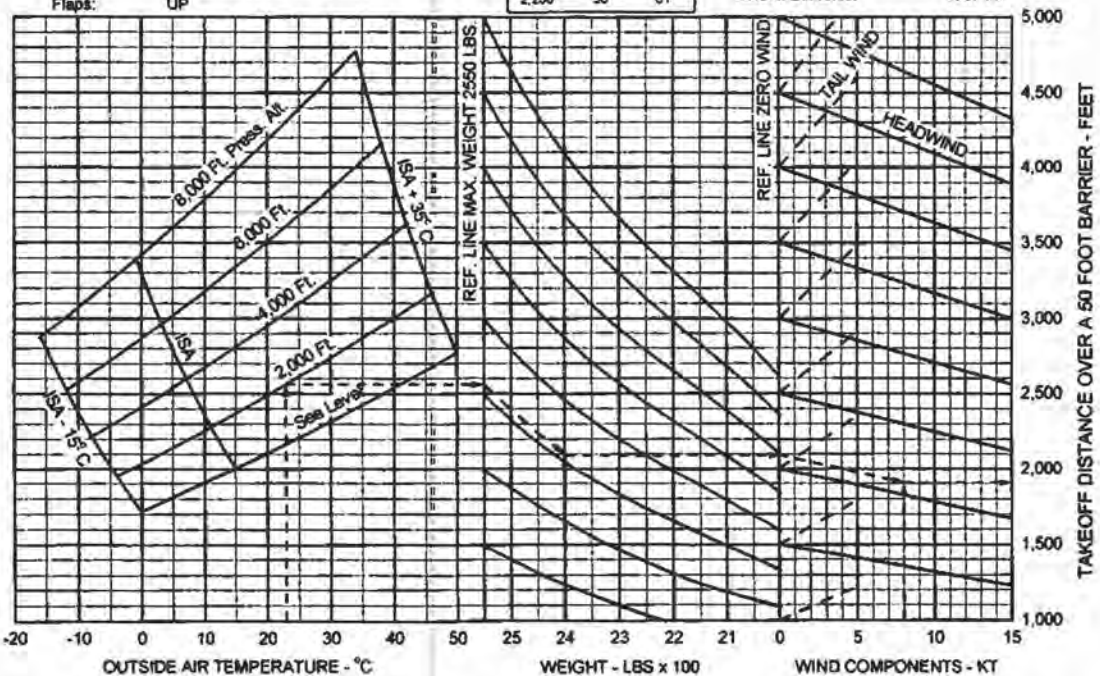
ASSOCIATED CONDITIONS:

Power: FULL THROTTLE BEFORE BRAKE RELEASE
Air Conditioner: OFF
Runway: PAVED, LEVEL, & DRY
Airspeed: REFER TO TABLE AT RIGHT
Propeller: SENSENICH 76EM8S14-0-82
Flaps: UP

TAKEOFF SPEEDS	KIAS	
	WT	50 FT
2,550	60	65
2,450	58	64
2,350	57	63
2,250	56	61

EXAMPLE:

Depart Airport Pressure Alt: 2,000 Ft.
Temperature: 23° C
Gross Weight: 2,400 Lb.
Headwind: 8 Kt.
Takeoff Distance: 1907 Ft.



FLAPS UP TAKEOFF PERFORMANCE

Figure 5-7

FLAPS 25° TAKEOFF PERFORMANCE

ASSOCIATED CONDITIONS

Power: FULL THROTTLE BEFORE BRAKE RELEASE

Air Conditioner: OFF

Runway: PAVED, LEVEL, & DRY

Airspeed: REFER TO TABLE AT RIGHT

Propeller: SENSENICH 75EMBS14-D-62

Flaps: 25°

EXAMPLE

Depart Airport Pressure Alt: 2,000 Ft.

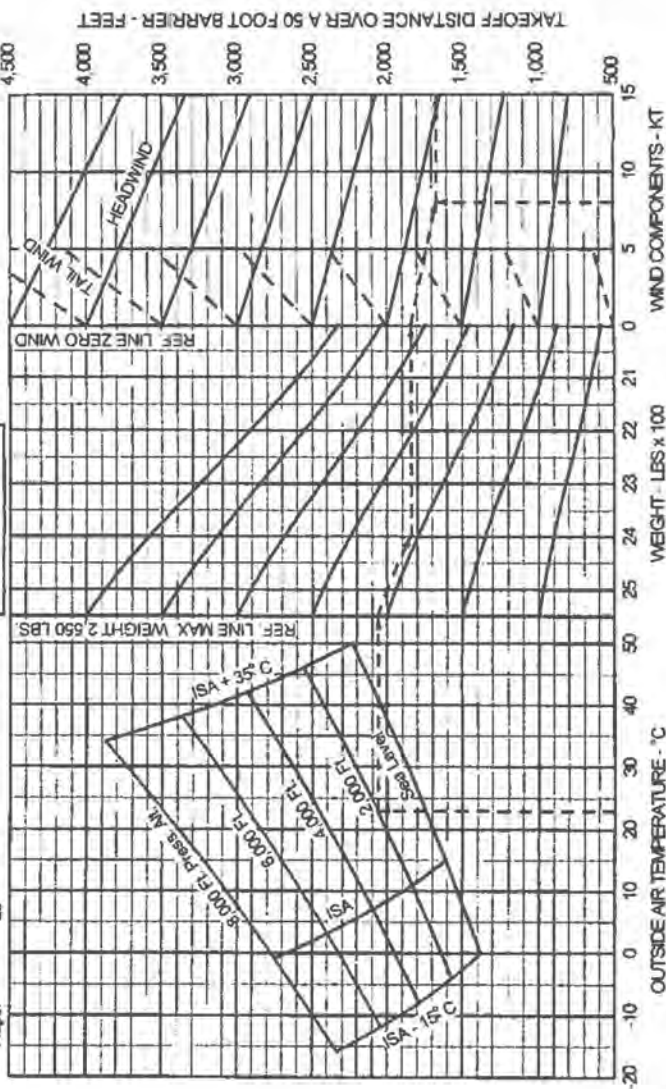
Temperature: 23° C

Gross Weight: 2,400 lb

Headwind: 8 kt

Takeoff Distance: 1,674 Ft.

TAKEOFF SPEEDS		KIAS
WT	LIFTOFF	50 FT
2,550	55	60
2,450	55	58
2,350	53	56
2,250	50	54



25° FLAPS TAKEOFF PERFORMANCE

Figure 5-9

FLAPS UP TAKEOFF GROUND ROLL

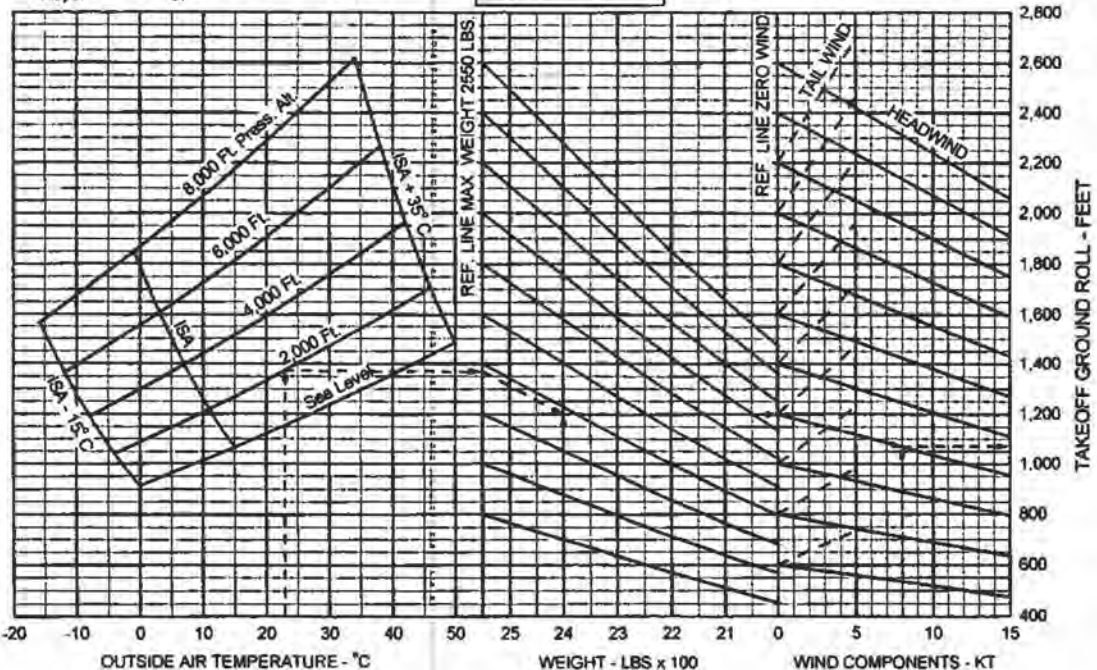
ASSOCIATED CONDITIONS:

Power: FULL THROTTLE BEFORE BRAKE RELEASE
Air Conditioner: OFF
Runway: PAVED, LEVEL, & DRY
Airspeed: REFER TO TABLE AT RIGHT
Propeller: SENSENICH 76EM8S14-0-62
Flaps: UP

TAKEOFF SPEEDS KIAS	
WT	LIFTOFF
2,550	60
2,450	58
2,350	57
2,250	56

EXAMPLE:

Depart Airport Pressure Alt: 2,000 Ft.
Temperature: 23° C
Gross Weight: 2,400 Lb.
Headwind: 8 Kt.
Takeoff Ground Roll: 1073 Ft.



FLAPS UP TAKEOFF GROUND ROLL

Figure 5-11

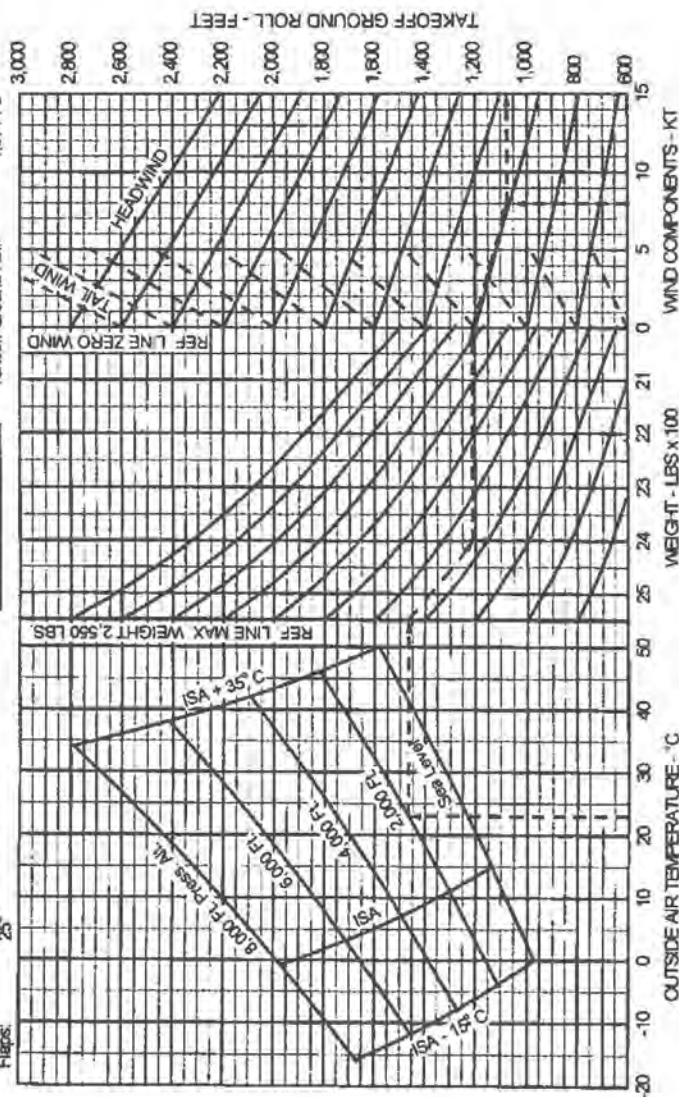
FLAPS 25° TAKEOFF GROUND ROLL

ASSOCIATED CONDITIONS

Power: FULL THROTTLE BEFORE BRAKE RELEASE
 Air Conditioner: OFF
 Runway: PAVED, LEVEL, & DRY
 Airspeed: REFER TO TABLE AT RIGHT
 Propeller: SENSENICH 76E18B514-0-62
 Flaps: 25°

WT	TAKEOFF SPEEDS	KIAS
		LIFTOFF
2,550	55	
2,450	53	
2,350	51	
2,250	49	

EXAMPLE
 Depart Airport Pressure Alt: 2,000 Ft.
 Temperature: 23° C
 Gross Weight: 2,400 Lb.
 Headwind: 8 Kt.
 Takeoff Ground Roll: 1,071 Ft.



25° FLAPS TAKEOFF GROUND ROLL

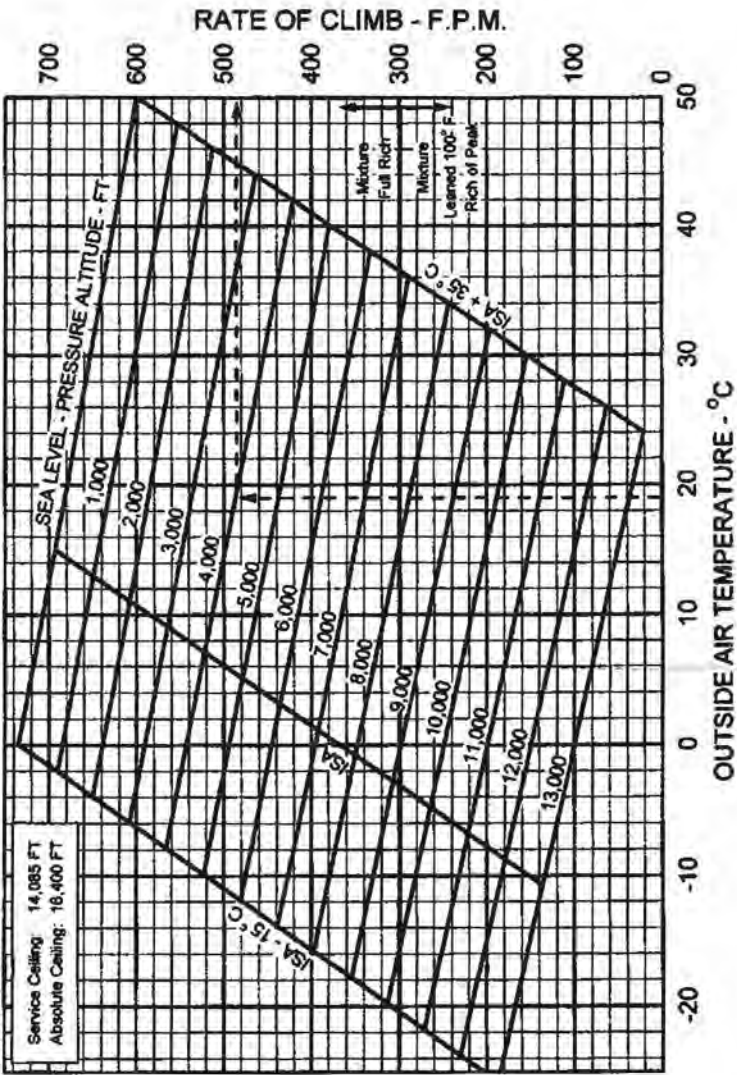
Figure 5-13

CLIMB PERFORMANCE

ASSOCIATED CONDITIONS:
Gross Weight: 2550 LBS
Power: FULL THROTTLE
Altitude: 78 KIAS
Flaps: UP
Air Conditioner: OFF

Service Ceiling: 14,085 FT
Absolute Ceiling: 16,400 FT

EXAMPLE:
Climb Pressure Alt: 4000 FT
Temperature: 18° C
Rate of Climb: 487 F/Min



CLIMB PERFORMANCE
Figure 5-15

TIME, FUEL, DISTANCE TO CLIMB

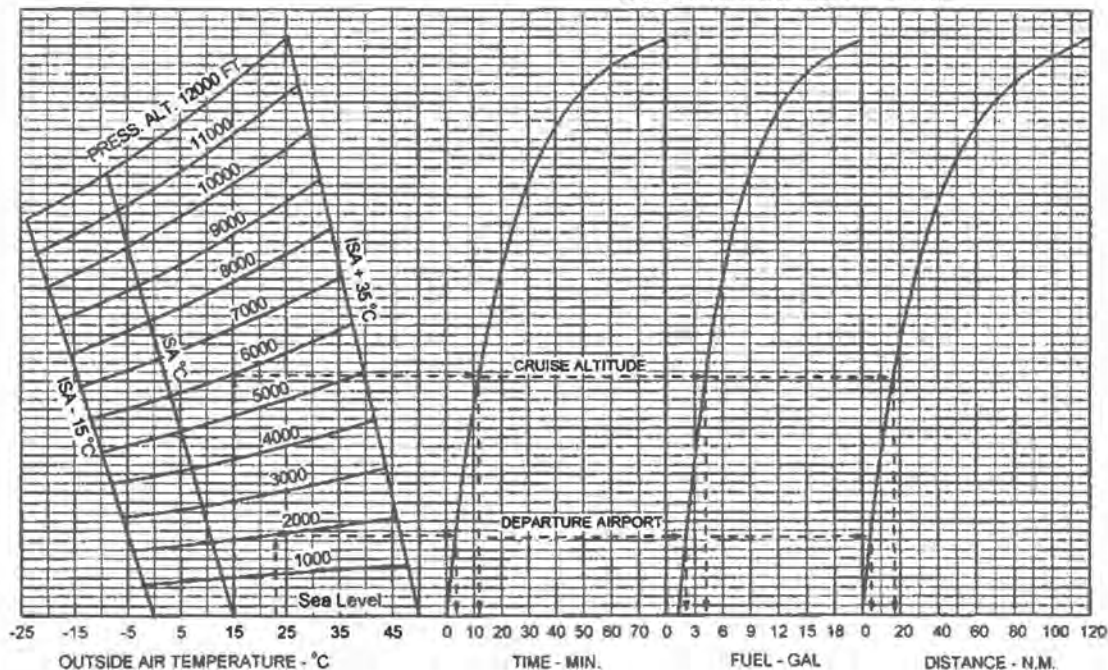
ASSOCIATED CONDITIONS

Gross Weight: 2550 LB Flaps: UP
Power: FULL THROTTLE Airspeed: 75 KIAS

NOTE: This chart includes fuel allowance for start, taxi, & takeoff.

EXAMPLE

Depart Airport Press Alt: 2000 FT Temperature: 23 °C
Cruise Press Alt: 6000 FT Cruise OAT: 15 °C
Time to Climb: 12 min. minus 3 min. = 9 min.
Fuel to Climb: 4 gal. minus 2 gal = 2 gal
Distance to Climb: 17 n.m. minus 5 n.m. = 12 n.m.



TIME, DISTANCE AND FUEL TO CLIMB

Figure 5-17

Engine / Cruise Performance for Non-ISA OAT* RPM for Constant 55% Power Fuel Flow: Best Economy Mixture, 8.2 GPH					
Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA -15	0	32	2245	105
	ISA	15	59	2265	
	ISA +10	25	77	2275	
	ISA +20	35	95	2285	
	ISA +30	45	113	2295	106
2000	ISA -15	-4	25	2265	106
	ISA	11	52	2280	
	ISA +10	21	70	2295	
	ISA +20	31	88	2305	
	ISA +30	41	106	2315	107
4000	ISA -15	-8	18	2285	106
	ISA	7	45	2300	
	ISA +10	17	63	2315	
	ISA +20	27	81	2325	
	ISA +30	37	99	2335	108
6000	ISA -15	-12	10	2305	107
	ISA	3	37	2320	
	ISA +10	13	55	2330	
	ISA +20	23	73	2345	
	ISA +30	33	91	2355	108
8000	ISA -15	-16	3	2320	107
	ISA	-1	30	2340	
	ISA +10	9	48	2350	108
	ISA +17.5	16.5	62	2360	
9000	ISA -15	-18	0	2330	107
	ISA	-3	27	2350	108
	ISA +8.5	5.5	42	2360	
10000	ISA -15	-20	-4	2340	107
	ISA	-5	23	2360	108
NOTE: * Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed ** Subtract 3 KTAS if wheel pants are removed.					

ENGINE/CRUISE PERFORMANCE (55%)

Figure 5-21

SECTION 5
PERFORMANCE

PA-28-181, ARCHER III

Engine / Cruise Performance for Non-ISA OAT*
RPM for Constant 65% Power
Fuel Flow: Best Economy Mixture, 9.5 GPH

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA -15	0	32	2385	113
	ISA	15	59	2405	
	ISA +10	25	77	2415	
	ISA +20	35	95	2430	
	ISA +30	45	113	2440	116
2000	ISA -15	-4	25	2405	114
	ISA	11	52	2425	
	ISA +10	21	70	2440	
	ISA +20	31	88	2450	
	ISA +30	41	106	2465	117
4000	ISA -15	-8	18	2430	115
	ISA	7	45	2450	
	ISA +10	17	63	2460	
	ISA +20	27	81	2475	
	ISA +30	37	99	2485	118
6000	ISA -15	-12	10	2450	116
	ISA	3	37	2470	
	ISA +10	13	55	2485	
	ISA +20	23	73	2495	
	ISA +30	33	91	2510	119
8000	ISA -15	-16	3	2475	117
	ISA	-1	30	2495	
	ISA +10	9	48	2505	
	ISA +17.5	16.5	62	2515	119
9000	ISA -15	-18	0	2485	117
	ISA	-3	27	2505	
	ISA +8.5	5.5	42	2515	119
10000	ISA -15	-20	-4	2495	118
	ISA	-5	23	2515	119
NOTE: * Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed					
** Subtract 3 KTAS if wheel pants are removed.					

ENGINE/CRUISE PERFORMANCE (65%)

Figure 5-23

Engine / Cruise Performance for Non-ISA OAT*
RPM for Constant 75% Power
Fuel Flow: Best Economy Mixture, 11.0 GPH

Pressure Altitude Feet	Indicated Outside Air Temperature			Engine Speed RPM	True Air Speed Knots **
	°C	°C	°F		
Sea Level	ISA -15	0	32	2485	119
	ISA	15	59	2515	
	ISA +10	25	77	2535	
	ISA +20	35	95	2550	
	ISA +30	45	113	2565	
2000	ISA -15	-4	25	2520	121
	ISA	11	52	2545	
	ISA +10	21	70	2565	
	ISA +20	31	88	2580	
	ISA +30	41	106	2600	
3000	ISA -15	-6	21	2535	122
	ISA	9	48	2560	
	ISA +10	19	66	2580	
	ISA +20	29	84	2595	
	ISA +30	39	102	2615	
4000	ISA -15	-8	18	2550	123
	ISA	7	45	2575	
	ISA +10	17	63	2595	
	ISA +20	27	81	2610	
	ISA +30	37	99	2630	
5000	ISA -15	-10	14	2565	124
	ISA	5	41	2590	
	ISA +10	15	59	2610	
	ISA +20	25	77	2625	
	ISA +25	30	86	2635	
6000	ISA -15	-12	10	2580	125
	ISA	3	37	2605	
	ISA +10	13	55	2625	
	ISA +15	18	64	2635	
	ISA +18	22	72	2645	
7000	ISA -15	-14	6.8	2595	126
	ISA	1	34	2625	
	ISA +7.5	8.5	47	2635	

NOTE: * Aircraft weight 2550 Lbs., Wheel pants and strut fairings installed

** Subtract 3 KTAS if wheel pants are removed.

ENGINE/CRUISE PERFORMANCE (75%)

Figure 5-25

SECTION 5 PERFORMANCE

PA-28-181, ARCHER III

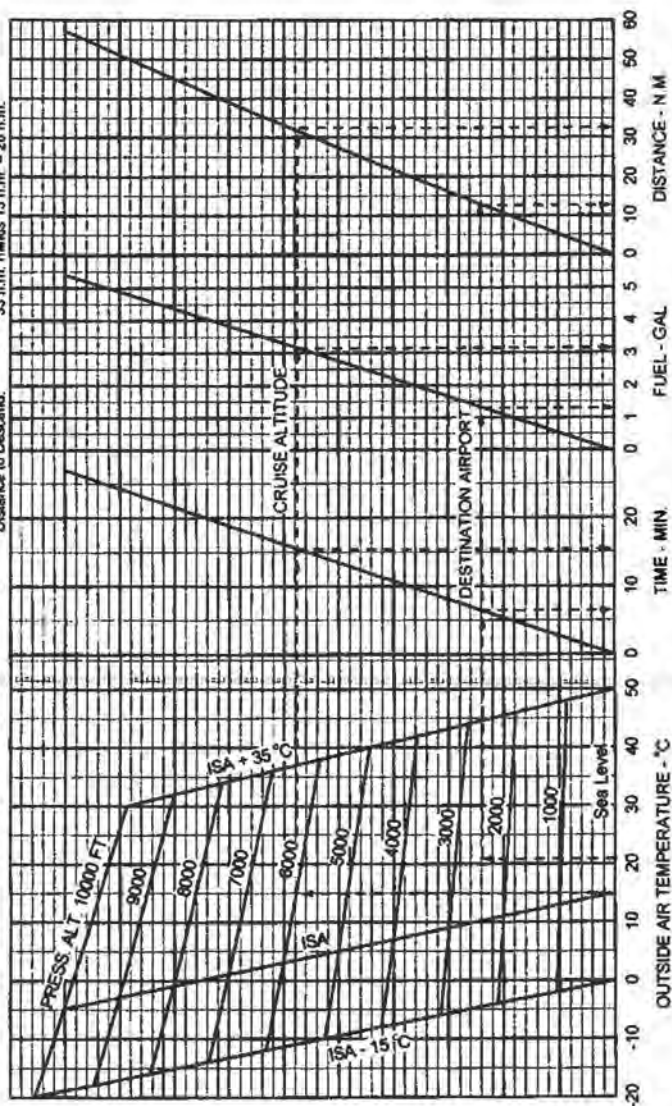
TIME, FUEL, DISTANCE TO DESCEND

ASSOCIATED CONDITIONS

Gross Weight: 2550 LB
Engine RPM: 2500
Airspeed: 122 KIAS
Flaps: UP

EXAMPLE

Depart Airport Press Alt. 2500 FT. Temperature: 21 °C
Cruise Press Alt. 6000 FT. Cruise OAT: 15 °C
Time to Descend: 18 min, minus 8 min, = 10 min
Fuel to Descend: 3.2 gal, minus 1.3 gal = 1.9 gal
Distance to Descend: 33 n.m, minus 13 n.m. = 20 n.m.



TIME, DISTANCE AND FUEL TO DESCEND

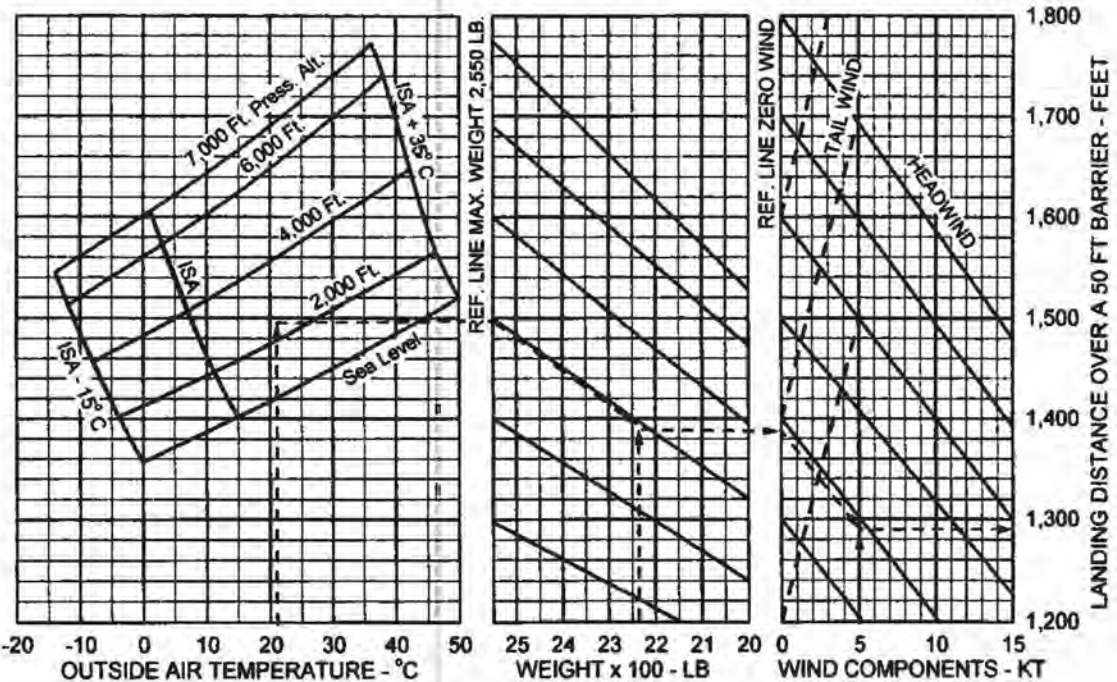
Figure 5-37

LANDING PERFORMANCE ASSOCIATED CONDITIONS

Power Off Approach, 40° Flaps, 66 KIAS, Full Stall
Touchdown, Maximum Braking, Paved, Level, Dry Runway

EXAMPLE:

Airport Pressure Altitude	2,500 FT.
O.A.T.	21°C
Gross Weight	2,240 LB.
Headwind	5 KT.
Landing Distance	1,290 FT.



LANDING PERFORMANCE

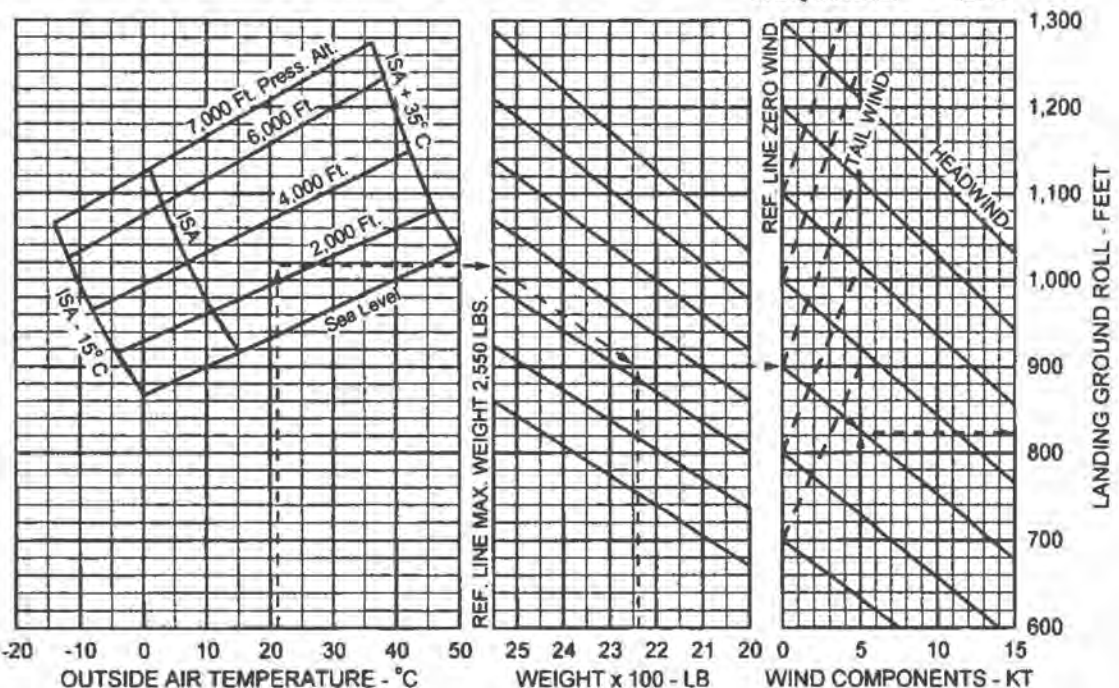
Figure 5-41

LANDING GROUND ROLL **ASSOCIATED CONDITIONS**

Power Off Approach, 40° Flaps, Full Stall Touchdown
Maximum Braking, Paved, Level, Dry Runway

EXAMPLE:

Airport Pressure Altitude	2,500 Ft.
O.A.T.	21°C
Gross Weight	2,240 Lb
Headwind	5 Kt
Landing Ground Roll	820 Ft.



LANDING GROUND ROLL

Figure 5-43