

SECTION V.

PERFORMANCE

TABLE OF CONTENTS

INTRODUCTION.....	5-3
RANGE ASSUMPTIONS.....	5-4
NOISE LIMITS.....	5-4
TEMPERATURE CONVERSION.	5-5
AIRSPEED CALIBRATION	
PRIMARY STATIC SYSTEM, FLAPS AND GEAR UP, POWER ON.	5-6
PRIMARY STATIC SYSTEM, FLAPS AND GEAR DOWN	5-7
ALTERNATE STATIC SYSTEM.	5-8
ALTIMETER CORRECTION	
PRIMARY STATIC SYSTEM, FLAPS AND GEAR UP AND POWER ON	5-9
PRIMARY STATIC SYSTEM, FLAPS AND GEAR DOWN	5-10
ALTERNATE STATIC SYSTEM	5-11
STALL SPEEDS vs ANGLE OF BANK	5-12
TAKEOFF DISTANCE	
NORMAL TAKEOFF DISTANCE	5-13
MAXIMUM PERFORMANCE TAKEOFF DISTANCE	5-14
NORMAL TAKEOFF DISTANCE - GRASS SURFACE.	5-15
MAXIMUM PERFORMANCE TAKEOFF DISTANCE - GRASS SURFACE	5-16
RATE OF CLIMB	5-17
TIME, FUEL AND DISTANCE TO CLIMB	5-18
CRUISE POWER SCHEDULE	
AT 75%, 70% AND 65% POWER	5-20
AT 60%, 50% AND 45% POWER	5-21
SPEED POWER vs ALTITUDE	5-22

SECTION V
PERFORMANCE

TABLE OF CONTENTS (CONT.)

RANGE 2740 LBS (1243 KGS)
RANGE 75% POWER 5-23
RANGE 65% POWER 5-24
RANGE 55% POWER 5-25
RANGE 45% POWER 5-26

ENDURANCE 2740 LBS (1243 KGS)
ENDURANCE 75% POWER 5-27
ENDURANCE 65% POWER 5-28
ENDURANCE 55% POWER 5-29
ENDURANCE 45% POWER 5-30

LANDING DISTANCE
NORMAL LANDING DISTANCE 5-31
MAXIMUM PERFORMANCE LANDING
DISTANCE 5-32
NORMAL LANDING DISTANCE - GRASS
SURFACE 5-33
MAXIMUM PERFORMANCE LANDING
DISTANCE - GRASS SURFACE 5-34

INTRODUCTION

The purpose of this section is to present the owner or operator with information needed to facilitate planning of flights with reasonable accuracy.

The Performance Data and charts presented herein are calculated, based on actual flight tests with the airplane and engine in good condition, power control system properly set for critical altitude, using average pilot techniques.

The flight test data has been corrected to International Standard Atmosphere conditions and then expanded analytically to cover various airplane gross weights, operating altitudes, and outside air temperatures.

To obtain effect of altitude and OAT on aircraft performance:

1. Set altimeter to 29.92 and read "pressure altitude"
2. Using the OAT grid for the applicable chart read density corresponding effect of OAT on performance.

CAUTION

Be sure to return to local altimeter setting in calculating aircraft elevation above sea level.

VARIABLES

It is not possible to make allowances in the charts for varying levels of pilot technique or proficiency. Mechanical or aerodynamic changes are not authorized because they can affect the performance or flight characteristics of the airplane. The effect of such things as soft runways, winds aloft or airplane configuration changes must be evaluated by the pilot. However, the performance on the charts can be duplicated by following the stated procedures in a properly maintained standard M20J.

SECTION V
PERFORMANCE

Examples are given to show how each chart is used.
The only charts with no example are those where such an example of use would be repetitive.

RANGE ASSUMPTIONS

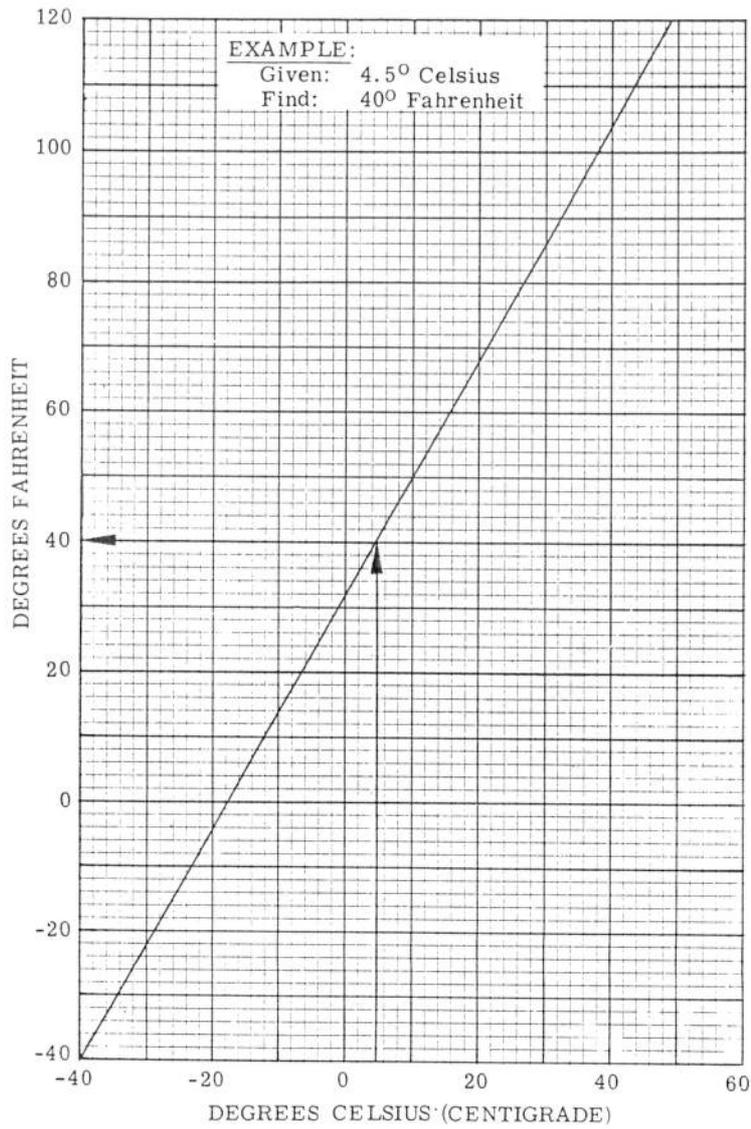
Range data climb allowance is based on climbing at maximum continuous power to cruise altitude.

No range increase due to descent from cruise altitude has been allowed in the range curves. Range reserves of 45 minutes at cruise power have been allowed on Range Data. Other conditions used in the Ranges shown are listed on each chart.

NOISE LIMITS

The certificated Noise Level for the Model M20J at 2740 pounds (1243 Kg.) maximum weight is 74 dB(A). No determination has been made by the Federal Aviation Administration that the noise levels of this airplane are or should be acceptable or unacceptable for operation at, into, or out of any airport.

TEMPERATURE CONVERSION



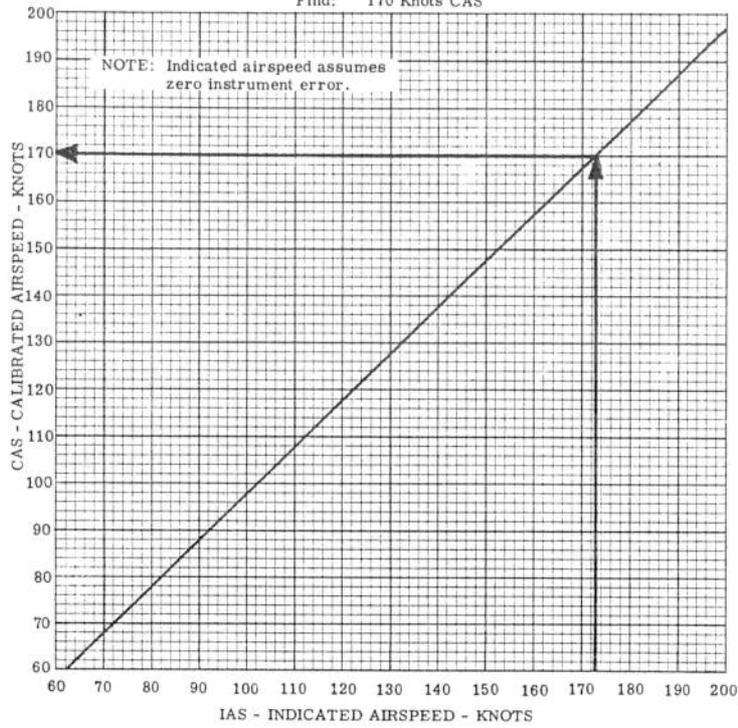
AIRSPPEED CALIBRATION

PRIMARY STATIC SYSTEM

FLAPS AND GEAR UP, POWER ON

EXAMPLE:

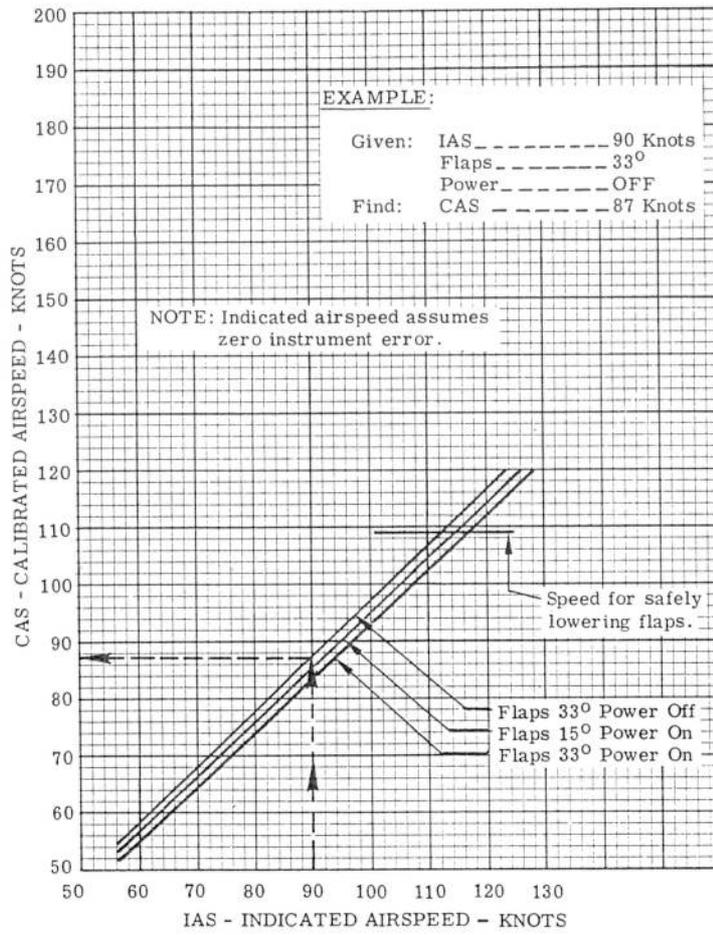
Given: 173 Knots IAS
Find: 170 Knots CAS



AIRSPEED CALIBRATION

PRIMARY STATIC SYSTEM

FLAPS AND GEAR DOWN



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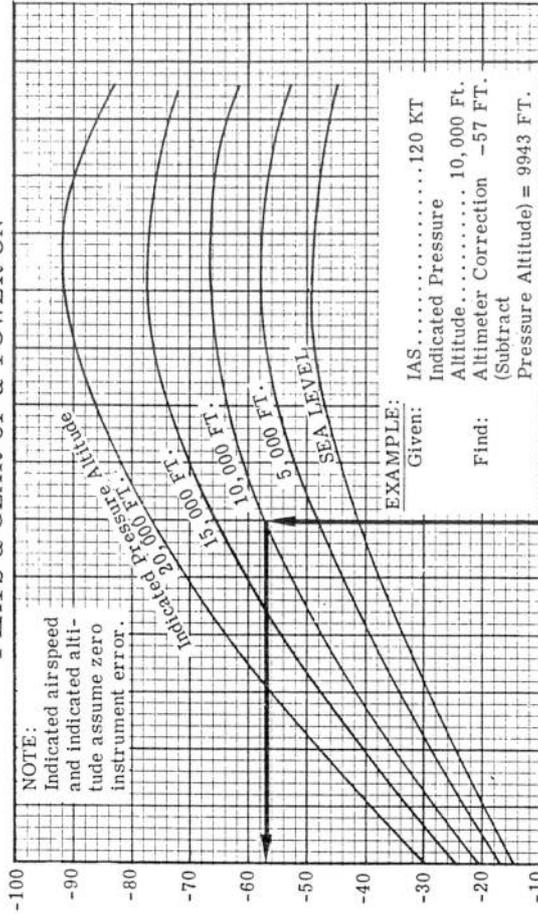
AIRPEED CALIBRATION
ALTERNATE STATIC SYSTEM

IAS KIAS	Gear & Flaps Up KIAS	Gear & Flaps Down (15°) KIAS	Gear & Flaps Down (33°) KIAS
61	--	-2	-3
70	-2	-3	-5
78	-3	-4	-7
87	-3	-6	-8
96	-4	-7	-10
104	-5	-7	-10
113	-5	-7	-10
122	-6	--	--
130	-6	--	--
139	-6	--	--
148	-6	--	--
156	-6	--	--
165	-3	--	--
174	-3	--	--
182	-4	--	--
191	-4	--	--
200	-5	--	--

The minus sign indicates subtraction of the given numbers from KIAS to obtain KCAS assuming zero instrument error

CONDITIONS: Storm Window and Vents: Closed
Defroster: ON
POWER: ON

ALTIMETER CORRECTION PRIMARY STATIC SYSTEM FLAPS & GEAR UP & POWER ON



* ALTIMETER CORRECTION - FEET *

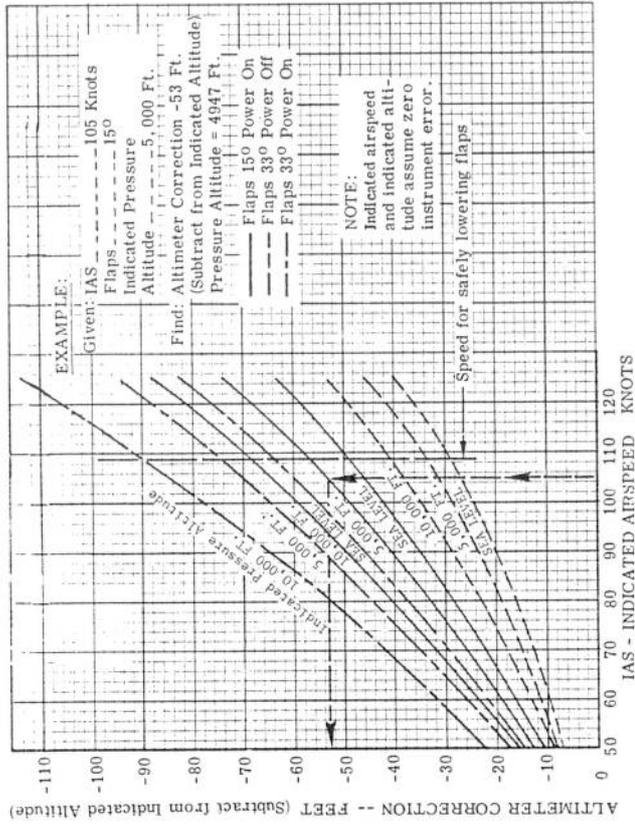
IAS - INDICATED AIRSPEED KNOTS
*The minus sign indicates subtraction of the altimeter correction from indicated pressure to obtain corrected pressure altitude.

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ALTIMETER CORRECTION PRIMARY STATIC SYSTEM

FLAPS AND GEAR DOWN



**ALTIMETER CORRECTION
ALTERNATE STATIC SYSTEM**

CONDITIONS: Storm Window and Vents: Closed, Defroster: On, Power: On

KIAS	SEA LEVEL				10,000 FT.				
	Gear & Flaps Up		Gear & Flaps Down		Gear & Flaps Up		Gear & Flaps Down		
	150	330	150	330	150	330	150	330	
61	--	-10	-21	-4	-15	-28	-4	-15	-28
70	-17	-20	-35	-21	--28	-39	-21	--28	-39
78	-26	-37	-55	-36	-50	-76	-36	-50	-76
87	-32	-54	-71	-43	-71	-99	-43	-71	-99
96	-40	-55	-82	-55	-77	-102	-55	-77	-102
104	-54	-63	-96	-73	-86	-130	-73	-86	-130
113	-54	--	--	-84	--	--	-84	--	--
122	-64	--	--	-87	--	--	-87	--	--
130	-72	--	--	-99	--	--	-99	--	--
139	-75	--	--	-101	--	--	-101	--	--
148	-99	--	--	-134	--	--	-134	--	--
156	-54	--	--	-73	--	--	-73	--	--
165	-54	--	--	-73	--	--	-73	--	--
174	-68	--	--	-94	--	--	-94	--	--
182	-64	--	--	-83	--	--	-83	--	--
191	-75	--	--	-103	--	--	-103	--	--
200	-91	--	--	-125	--	--	-125	--	--

NOTE: The minus sign indicates subtraction of the given numbers from the indicated pressure altitude to obtain pressure altitude assuming zero instrument error.

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STALL SPEED vs ANGLE OF BANK

ASSOCIATED CONDITIONS:
Forward C.G.
Power Idle

GROSS WEIGHT	GEAR AND FLAP POSITION	ANGLE OF BANK											
		0°			30°			45°			60°		
		KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS		
2740 LBS (1243 KGS)	GEAR UP, Flaps 0°	59.0	61.0	63.5	65.5	70.0	72.0	83.5	85.5				
	GEAR DOWN, Flaps 15°	56.5	60.0	60.5	64.0	67.0	71.0	80.0	84.0				
	GEAR DOWN, Flaps 33°	53.0	54.0	57.0	59.0	63.0	65.0	75.0	77.0				
2500 LBS (1134 KGS)	GEAR UP, Flaps 0°	56.5	58.5	60.5	62.5	67.0	69.0	79.5	81.5				
	GEAR DOWN, Flaps 15°	54.0	57.0	58.0	61.5	64.0	68.0	76.5	80.5				
	GEAR DOWN, Flaps 33°	50.5	51.5	54.5	55.5	60.0	61.5	71.5	73.5				
2300 LBS (1032 KGS)	GEAR UP, Flaps 0°	54.0	56.0	58.0	60.0	64.5	66.5	76.5	78.5				
	GEAR DOWN, Flaps 15°	52.0	55.0	55.5	58.5	61.5	65.0	73.0	77.0				
	GEAR DOWN, Flaps 33°	48.5	49.0	52.0	52.5	57.5	60.0	68.5	70.5				

NOTE:

Up to 290 feet altitude loss may occur during stalls at maximum weight.

EXAMPLE:

Weight	2500 LBS (1134 KGS)
Landing Gear	Down
Flaps	15°
Angle of Bank	45°
Stall Speed	64.0 KCAS (68.0 KIAS)

SECTION V PERFORMANCE

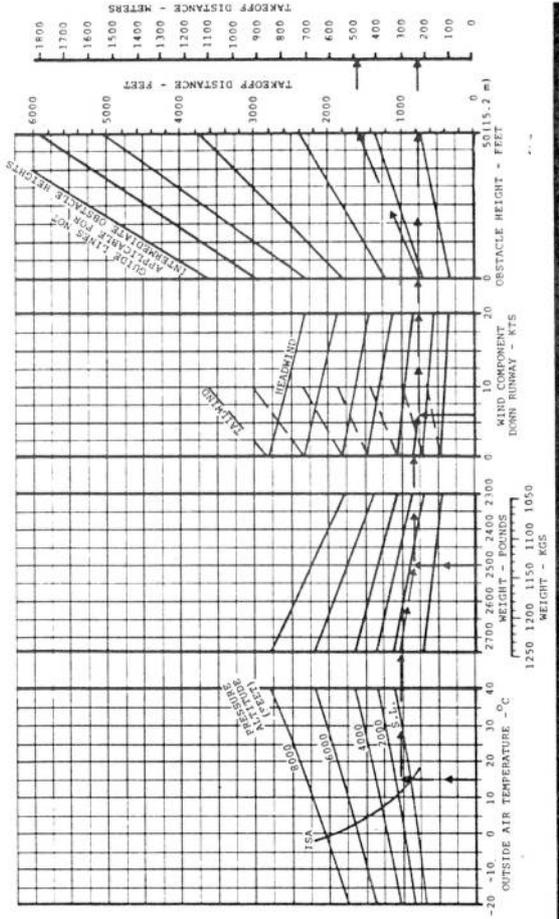
NORMAL TAKEOFF DISTANCE

TAKEOFF WEIGHT - LBS (KGS)	TAKEOFF SPEED - KIAS	SPED AT 50 FT - KIAS
2740 (1243)	63	71
2500 (1134)	58	68
2300 (1043)	54	63

NOTE 1) MAXIMUM DEMONSTRATED CROSSWIND VELOCITY IS 11 KNOTS
 2) CONDITIONS OF HIGH HUMIDITY CAN RESULT IN AN INCREASE OF UP TO 10% TO THE TAKEOFF DISTANCE

- ASSOCIATED CONDITIONS**
- POWER FULL THROTTLE, 2700 RPM (BEFORE BRAKE RELEASE)
 - LANDING GEAR EXTENDED UNTIL OBSTACLE CLEARED
 - WING FLAPS 15°
 - CONFL FLAPS FULL OPEN
 - RUNWAY SURFACE PAVED, LEVEL & DRY
 - MIXTURE LEAN FOR SMOOTH OPERATION

EXAMPLE: → 15°C
 ONT PRESSURE 1500 FT.
 ALTITUDE 2500 LBS. (1134 KGS)
 WEIGHT 6 KTS
 HEADWIND COMPONENT 700
 GROUND ROLL 750 FT. (229 m)
 TOTAL TAKEOFF 1575 FT. (480 m)
 (50 FT. OBSTACLE)



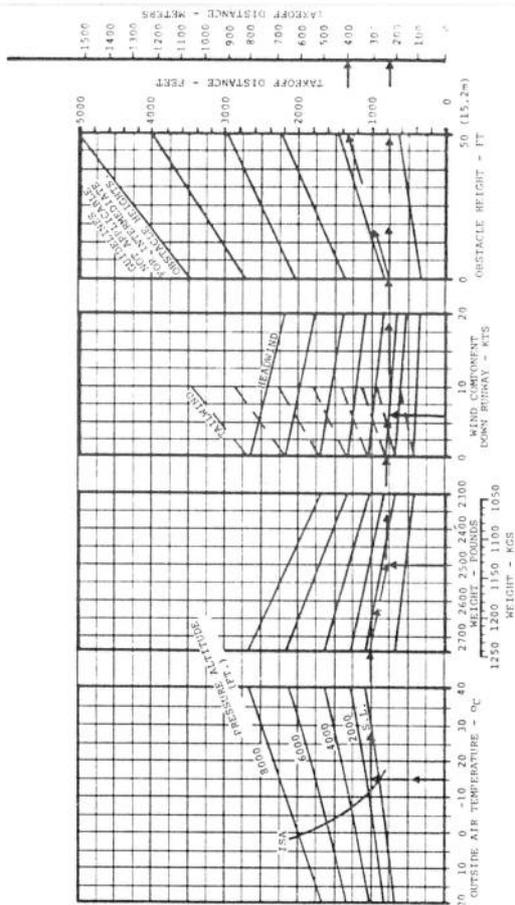
MAXIMUM PERFORMANCE TAKEOFF DISTANCE

TAKEOFF WEIGHT - LBS (KG)	TAKEOFF SPEED KIAS	SPEED AT 50 FT. - KIAS
2740 (1243)	62	66
2500 (1134)	60	63
2300 (1043)	57	60

NOTE: 1) MAXIMUM DEMONSTRATED CROSSWIND VELOCITY IS 11 KNOTS.
2) CONDITIONS OF HIGH HUMIDITY CAN RESULT IN AN INCREASE OF UP TO 10% TO THE TAKEOFF DISTANCE.

ASSOCIATED CONDITIONS:
 POWER: FULL THROTTLE
 (Before brake release)
 LANDING GEAR: DOWN UNTIL
 OBSTACLE CLEARED
 WING FLAPS: 15°
 COWL FLAPS: FULL OPEN
 RUNWAY: PAVED, LEVEL
 SURFACE
 MIXTURE: LEAN FOR
 SMOOTH OPERATION

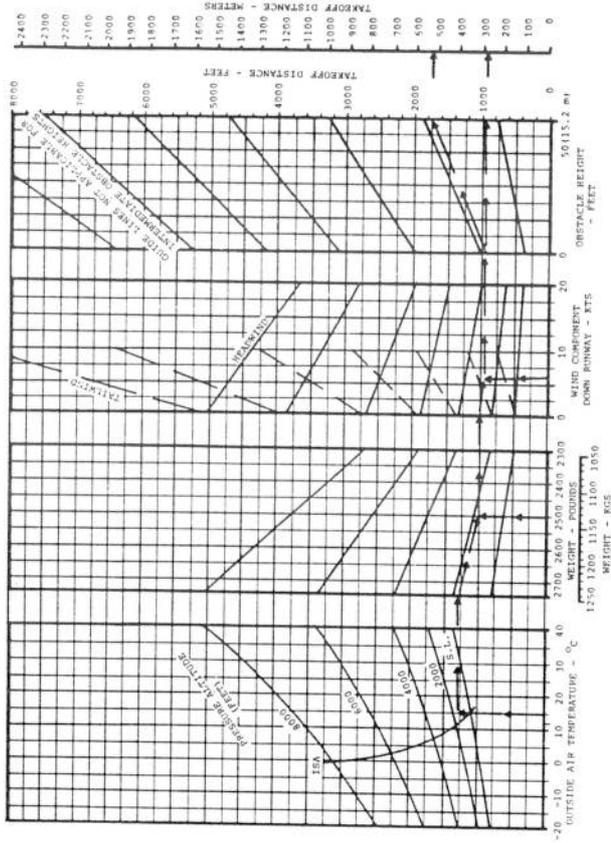
EXAMPLE: →
 OAT: 15°C
 PRESSURE ALTITUDE: 1500 FT.
 ALTITUDE: 2500 FMS.
 WEIGHT: (1114 KG)
 HEADWIND COMPONENT: 6 KTS.
 GROUND ROLL: 750 FT. (229 m)
 TOTAL TAKEOFF DISTANCE: 1325 FT.
 (404 m)



NORMAL TAKEOFF DISTANCE-GRASS SURFACE

TAKEOFF WEIGHT - LBS (KG)	TAKEOFF SPEED 50 FT - KIAS	SPEED AT 50 FT - KIAS
2740 (1243)	63	71
2500 (1134)	60	68
2260 (1025)	58	65

NOTE: 1) MAXIMUM DEMONSTRATED CROSSWIND VELOCITY IS 11 KNOTS.
2) CONDITIONS OF HIGH HUMIDITY CAN RESULT IN AN INCREASE OF UP TO 10% TO THE TAKEOFF DISTANCE.



ASSOCIATED CONDITIONS:
 POWER: FULL THROTTLE;
 2700 RPM (BEFORE BRAKE RELEASE)
 LANDING: DOWN UNTIL MAIN WHEELS TOUCH
 MISC: FLAPS: 15°
 COMB. FLAPS: FULL OPEN
 SHORT LEVEL: SHORT LEVEL
 RUNWAY: 1000 FT
 MATURE: LEAN FOR SMOOTH OPERATIONS

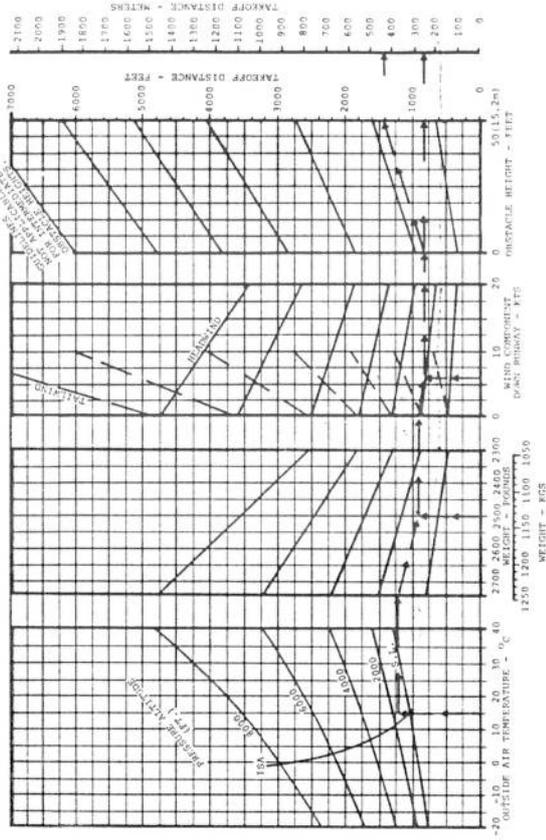
EXAMPLE: →
 DAY: 15°C
 PRESSURE: 1500 FT
 ALTITUDE: 2500 LBS (1114 KGS)
 WEIGHT: 8 FTS
 WINDING COMPONENT: 925 FT (282M)
 GROUND ROLL: 1750 FT (533M)
 TOTAL TAKEOFF DISTANCE (50 FT OBSTACLE):

SECTION V
PERFORMANCE

MAXIMUM PERFORMANCE TAKEOFF DISTANCE - GRASS SURFACE

TAKEOFF WEIGHT - LBS. KGS.	TAKEOFF SPEED IAS	SPEED AT 50 FT. - KIAS
2740 (1243)	62	66
2800 (1270)	61	65
2900 (1323)	59	63

NOTE: 1) MAXIMUM DEMONSTRATED CROSSWIND VELOCITY IS 11 KTS.
2) CONDITIONS OF HIGH HUMIDITY CAN RESULT IN AN INCREASE OF UP TO 10% TO THE TAKEOFF DISTANCE.



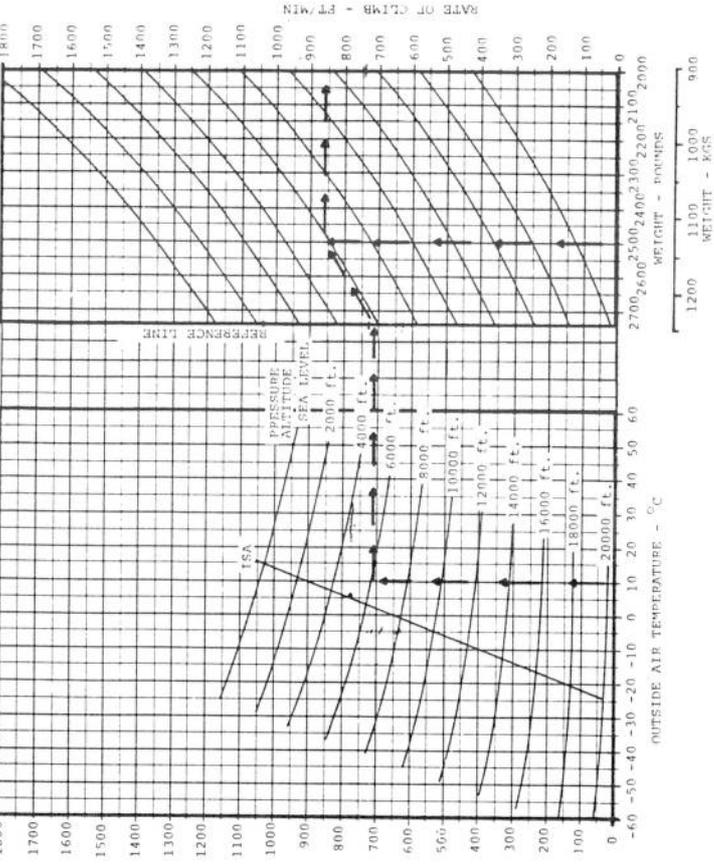
ASSOCIATED CONDITIONS:

- POWER - FULL THROTTLE 2700 RPM (Before brake release)
- LANDING GEAR - DOWN
- WING FLAPS - FULL UP
- FLIGHT CONTROLS - FULL OPEN
- COOLING FLAPS - 15°
- BRNAY SURFACE - SHORT, LEVEL, DRY GRASS
- SURFACE MIXTURE - LEAN FOR SMOOTH OPERATION

EXAMPLE:

- OAT - 15°C
- WEIGHT - 2500 LBS. (1134 KGS)
- HEADWIND COMPONENT - 6 KTS. (2700 FT. / 820 FT. (250 M))
- TOTAL TAKEOFF DISTANCE - 1800 FT. (550 M)
- TAKEOFF WEIGHT - 2900 LBS. (1323 KGS)

SECTION V
PERFORMANCE



RATE OF CLIMB
GEAR UP, FLAPS UP, COM1 FLAPS OPEN, RAM AIR ON,
2700 RPM, FULL THROTTLE, FULL RICH

WEIGHT LBS. (KGS)	CLIMB SPEEDS - KTAS			
	5. L.	10000	15000	20000
2740 (1243)	88	85	81	79
2300 (1043)	81	78	74	72
2000 (907)	76	73	69	67

EXAMPLE: ↑ Pressure Altitude 6000 FT
OWT 10°C
Weight 2500 LBS (1134 KGS)
Rate of Climb 860 FT/MIN
Climb Speed 81 KTAS

REV C 3-7-84
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5-17

TIME, FUEL AND DISTANCE TO CLIMB

Associated Conditions for the Time, Fuel and
Distance to Climb graph on the following page:

Climb Speed: V_y from Climb Performance graph
on the preceding page.

Power: 2700 RPM, Full Throttle

Mixture: Full Rich

Ram Air: On

Cowl Flaps: Full Open

Landing Gear: Up

Wing Flaps: Up

Fuel Density 6.0 Lbs./Gal. (.72 Kg/liter)

NOTE:

1. Distances shown are based on zero wind.
2. Add 9 LBS. of fuel for start, taxi and takeoff.

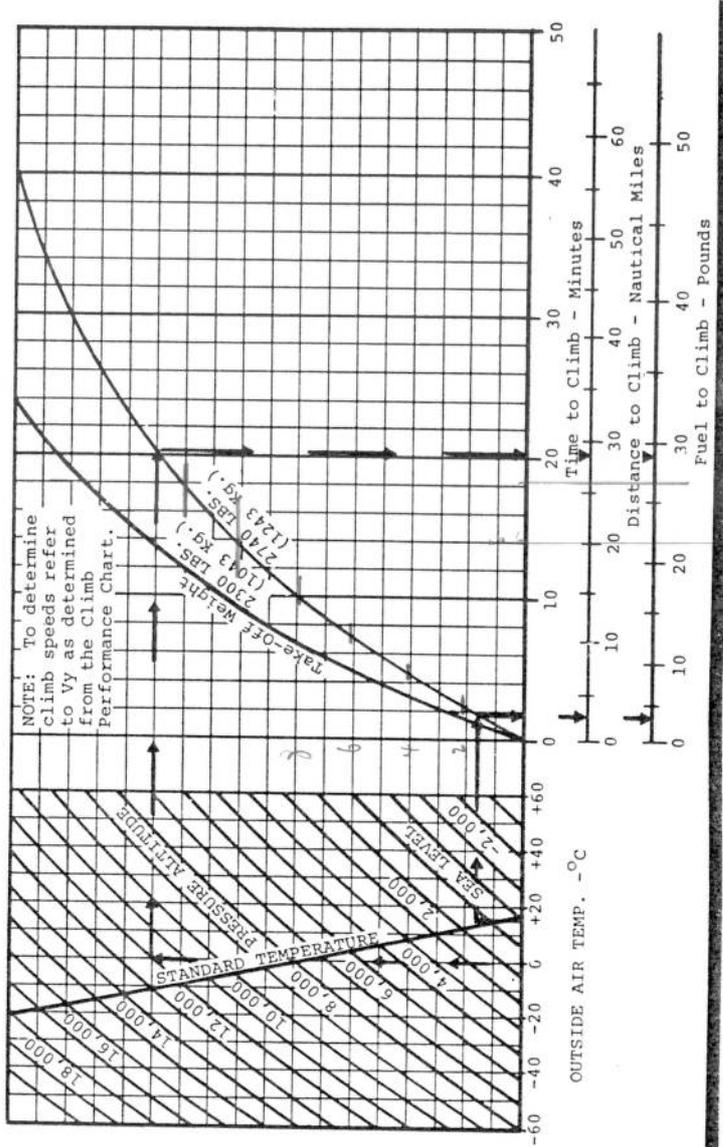
EXAMPLE:

Given: Initial Pressure Altitude/OAT 1500 Ft./15°C
Final Pressure Altitude/OAT 12000 Ft./0°C
Takeoff Weight - 2740 lbs./1243 Kg.

Find: Time to Climb (20.2 - 1.7) 18.3 Minutes
Distance to Climb (28.5 - 2.0) 26.5 Naut. Mi.
Fuel to Climb (29.0 - 3.0) 26.0 Lbs.

SECTION V
PERFORMANCE

TIME, FUEL, & DISTANCE TO CLIMB



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CRUISE POWER SCHEDULE AT 75%, 70%, & 65% POWER

1. BEST POWER IS 100°F RICH OF PEAK EGT
 2. ECONOMY CRUISE IS 25°F RICH OF PEAK EGT
- EXAMPLE:
 CRUISE ALT. 6000 FT.
 OAT 10°C
 POWER 65%
 RPM 2600
 M.P. 22.0 (7°C correction)

Pressure Altitude Feet Std. Day	75% POWER (150 BHP)			70% POWER (140 BHP)			65% POWER (130 BHP)		
	RPM Best Economy Best Power	2400	2600	2700	2400	2600	2700	2400	2600
Fuel Flow	10.3	10.5	10.8	9.7	9.9	10.2	9.2	9.4	9.6
Std. Day	12.0	12.3	12.5	11.3	11.7	11.9	10.5	11.0	11.2
Standard Temperature	MANIFOLD PRESSURE - INCHES OF MERCURY								
S.L.	27.0	24.5	23.5	25.5	23.0	22.0	24.0	21.7	21.0
2000	26.8	24.4	23.3	25.1	23.0	22.0	23.6	21.6	20.6
4000		24.4	23.2	24.9	22.9	21.8	23.3	21.5	20.5
6000		24.1	23.1	24.4	22.7	21.7	22.8	21.3	20.4
8000			23.6		22.7	21.7		21.2	20.4
10000						21.4			
12000									
14000									

NOTE: ADD .4" M.P. FOR EACH 10°C OAT ABOVE STANDARD DAY TEMPERATURE. SUBTRACT .4" M.P. FOR EACH 10°C OAT BELOW STANDARD DAY TEMPERATURE. IF OAT ABOVE STANDARD PRECLUDES OBTAINING THE DESIRED M.P., USE THE NEXT HIGHER RPM/M.P. WITH APPROPRIATE TEMPERATURE CORRECTION TO M.P.

**CRUISE POWER SCHEDULE
AT 60%, 55%, & 45% POWER**

1. BEST POWER IS 100°F RICH OF PEAK EGT
2. ECONOMY CRUISE IS 25°F RICH OF PEAK EGT

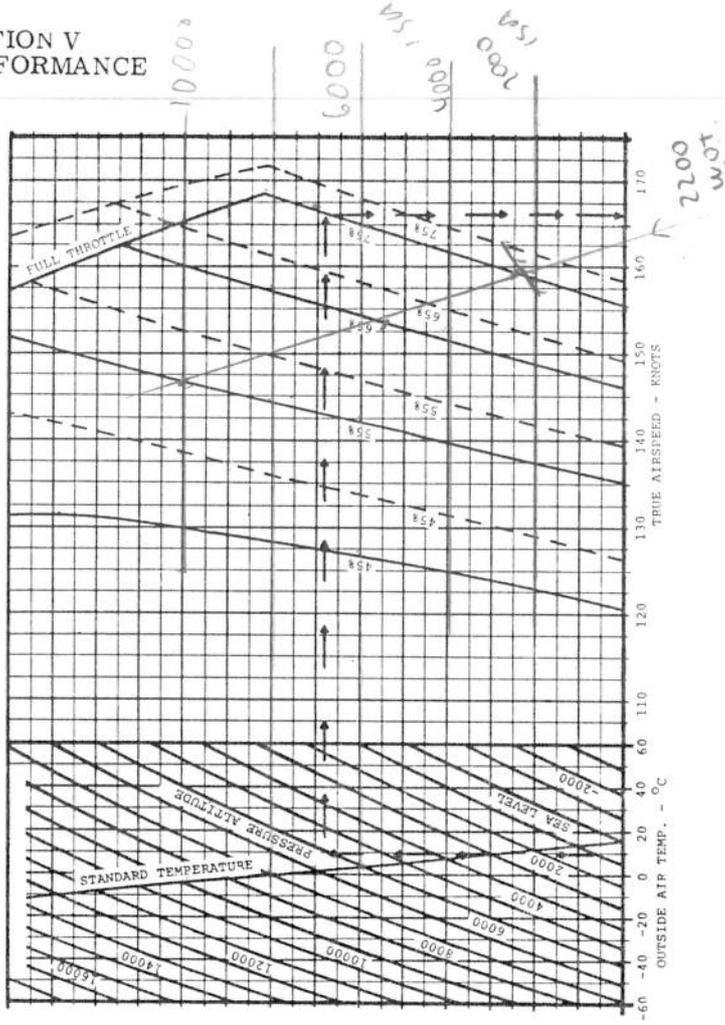
Pressure Altitude Feet Std Day	RPM Best Economy Best Power	60% POWER (120 BHP)			55% POWER (110 BHP)			45% POWER (90 BHP)						
		2200	2400	2600	2700	2200	2400	2600	2700	2000	2200	2400	2600	2700
S.L.	15°C	24.2	22.5	20.5	19.5	22.5	21.0	19.0	18.0	21.0	19.0	17.5	16.3	15.4
2000	11°C	24.0	22.0	20.2	19.3	22.2	20.4	18.8	18.0	20.5	18.7	17.2	16.0	15.3
4000	7°C	23.7	21.7	20.1	19.2	22.0	20.2	18.7	17.9	20.4	18.6	17.1	15.8	15.3*
6000	3°C	23.6	21.3	19.9	19.1	22.0	19.8	18.6	17.8	20.4	18.3	16.8	15.7	15.2
8000	-1°C		21.3	19.8	19.0	22.0	19.8	18.6	17.8	20.3	18.2	16.5	15.7	15.1
10000	-5°C		21.0	19.8	18.8		19.5	18.3	17.6	18.2	16.5	15.6	15.0	
12000	-9°C			19.6	18.8		19.3	18.2	17.5	18.0	16.4	15.5	14.9	
14000	-13°C							17.9	17.3		16.2	15.4	14.7	

MANIFOLD PRESSURE - INCHES OF MERCURY

NOTE: ADD .4" M.P. FOR EACH 10°C OAT ABOVE STANDARD DAY TEMPERATURE. SUBTRACT .4" M.P. FOR EACH 10°C OAT BELOW STANDARD DAY TEMPERATURE. IF OAT ABOVE STANDARD PRECLUDES OBTAINING THE DESIRED M.P., USE THE NEXT HIGHER RPM/M.P. WITH APPROPRIATE TEMPERATURE CORRECTION TO M.P.

SECTION V
PERFORMANCE

SPEED POWER vs ALTITUDE



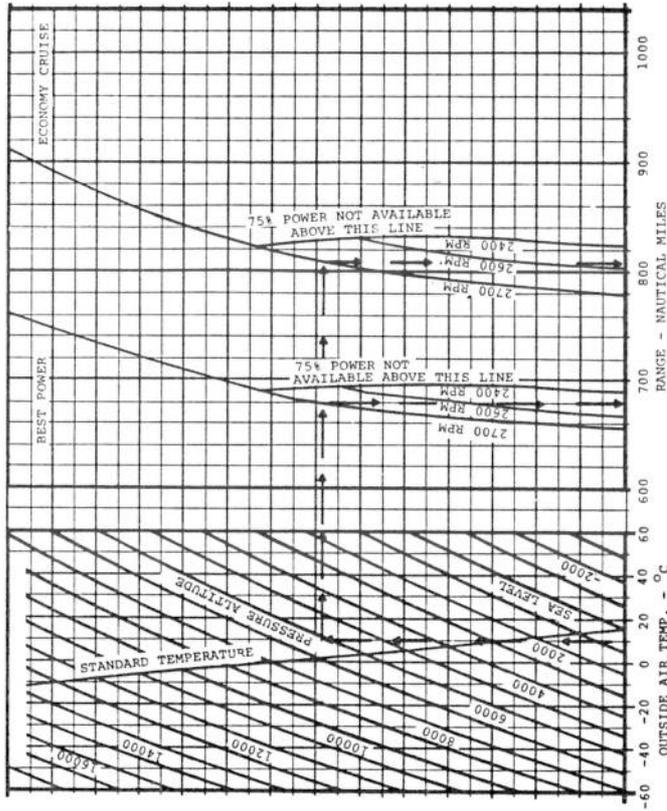
GEAR UP, FLAPS UP,
COWL FLAPS CLOSED

— 2740 LBS
(1243 KGS)
- - - 2300 LBS
(1043 KGS)

EXAMPLE: ↑
GROSS WEIGHT 2740 LBS
(1243 KGS)
CRUISE PRESSURE 6000 FT.
ALTITUDE 10°C
CRUISE OAT 75%
POWER 166 KTS
TRUE AIRSPEED

SECTION V
PERFORMANCE

RANGE 75% POWER - 2740 LBS (1243 KGS)



CLEAN CONFIGURATION
 CRUISE PRESS. ALT. 6000 FT.
 CRUISE OAT 10°C
 *POWER 75%
 *RPM 2700 RPM
 RANGE, BEST POWER 680 N.M.
 RANGE, ECON. CRUISE 810 N.M.
 RESERVE @ CRUISE POWER.

EXAMPLE: → CRUISE PRESS. ALT. 6000 FT.
 CRUISE OAT 10°C
 *POWER 75%
 *RPM 2700 RPM
 RANGE, BEST POWER 680 N.M.
 RANGE, ECON. CRUISE 810 N.M.
 *MP FOR 2700 RPM @ 75% POWER FROM
 CRUISE POWER SCHEDULE.

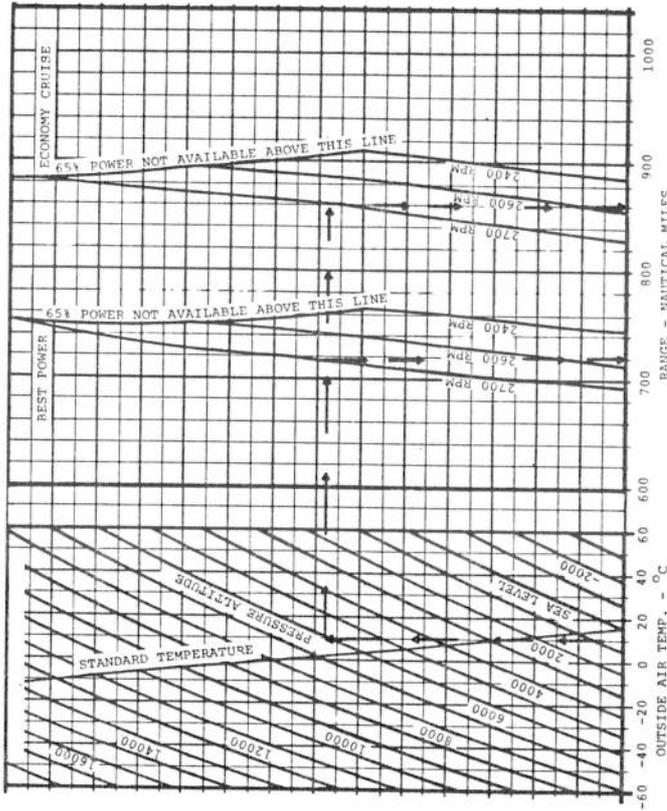
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5-23

SECTION V
PERFORMANCE

RANGE 65% POWER - 2740 LBS (1243 KGS)



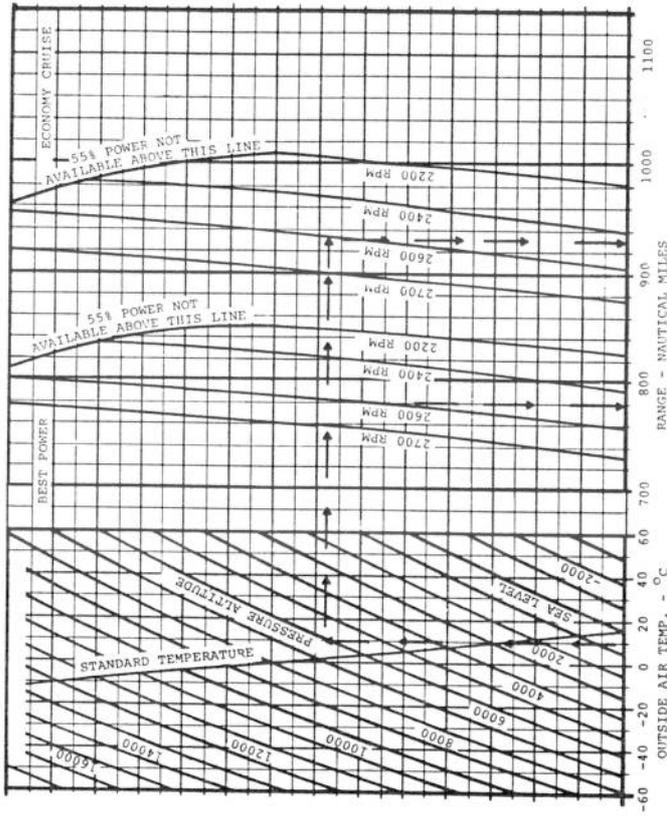
CLEAN CONFIGURATION
64 GAL. USABLE FUEL (51.3 IMP. GAL.)
ZERO WIND, COML FLAPS CLOSED
RANGE INCLUDES WARRUP, TAXI,
TAKEOFF, CLIMB, CRUISE, 15 MIN.
RESERVE & CRUISE POWER

EXAMPLE: →
CRUISE ALT 6000 FT.
CRUISE ONT 10°C
*POWER 65%
*RPM 2700 RPM
RANGE, BEST POWER 719 N.M.
RANGE, ECON. CRUISE 860 N.M.

*MP FOR 2700 RPM @ 65% POWER
FROM CRUISE POWER SCHEDULE

SECTION V
PERFORMANCE

RANGE 55% POWER - 2740 LBS (1243 KGS)



CLEAN CONFIGURATION
64 GAL. USABLE FUEL (53.3 IMP. GAL.)
ZERO WIND, CONFL FLAPS CLOSED
RANGE INCLUDES WARMUP, TAXI,
TAKEOFF, CLIMB PLUS 45 MIN.
RESERVE @ CRUISE POWER

EXAMPLE: →
CRUISE ALT. 6000 FT.
CRUISE ONT 10°C
POWER 55%
RPM 2600 RPM
RANGE, BEST POWER 782 N.M.
RANGE, ECON. CRUISE 935 N.M.

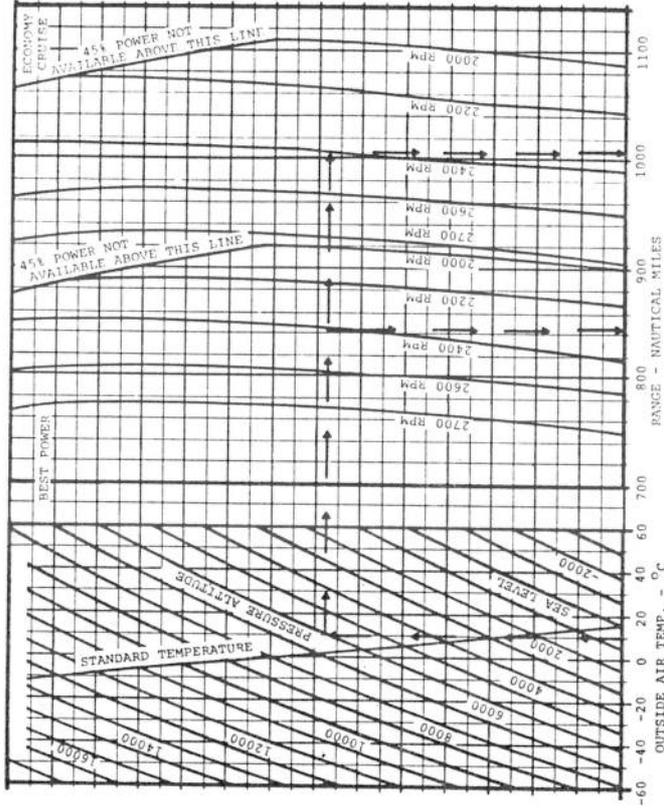
*MP FOR 2600 RPM @ 55% POWER
FROM CRUISE POWER SCHEDULE.

REV A 9-23-82
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SECTION V
PERFORMANCE

RANGE 45% POWER - 2740 LBS(1243 KGS)

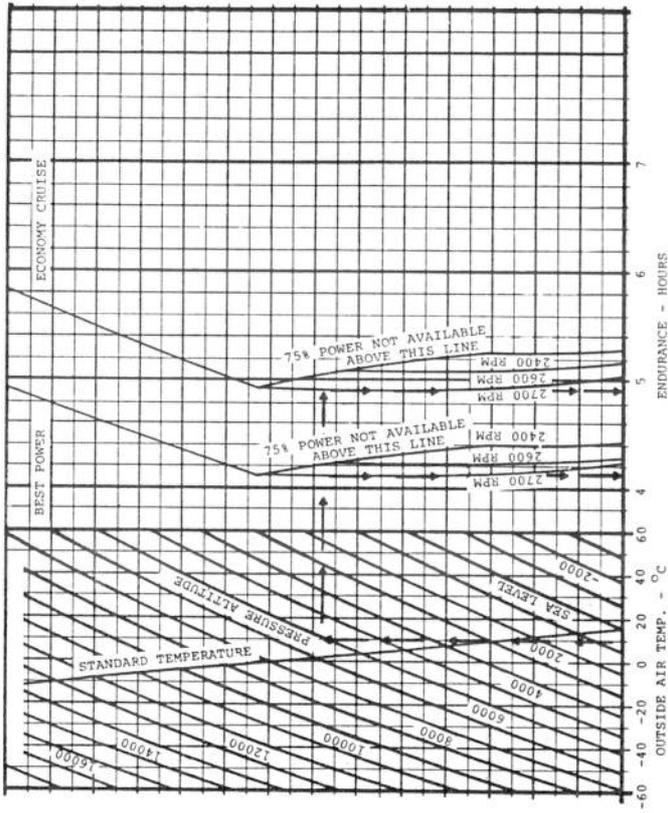


CLEAN CONFIGURATION
64 GAL. USABLE FUEL (53.3 IMP. GAL.)
ZERO WIND, CONFL. FLAPS CLOSED,
RANGE INCLUDES WARMUP, TAXI,
TAKEOFF, CLIMB PLUS 45 MIN.,
RESERVES & CRUISE POWER.

EXAMPLE: ↑ 6000 FT.
CRUISE ALT 10 °C
• 2400 RPM
• 2700 RPM
RANGE, BEST POWER 845 N.M.
RANGE, ECON. CRUISE 1010 N.M.
*MP FOR 2400 RPM @ 45% POWER FROM
CRUISE POWER SCHEDULE.

SECTION V
PERFORMANCE

ENDURANCE 75% POWER - 2740 LBS (1243 KGS)



CLEAN CONFIGURATION
64 GAL. USABLE FUEL (53.3 IMP. GAL.)
COML FLAPS CLOSED, ZERO WIND
ENDURANCE INCLUDES WARMUP, TAXI,
TAKEOFF CLIMB PLUS 45 MIN.
RESERVE @ CRUISE POWER

EXAMPLE: ↑
CRUISE ALT 6000 FT.
CRUISE OAT 10°C
POWER 75%
RPM 2700 RPM
ENDURANCE, BEST POWER 4.10 HRS.
ENDURANCE, ECON. CRUISE 4.90 HRS.
*MP FOR 2700 RPM @ 75% POWER FROM
CRUISE POWER SCHEDULE.

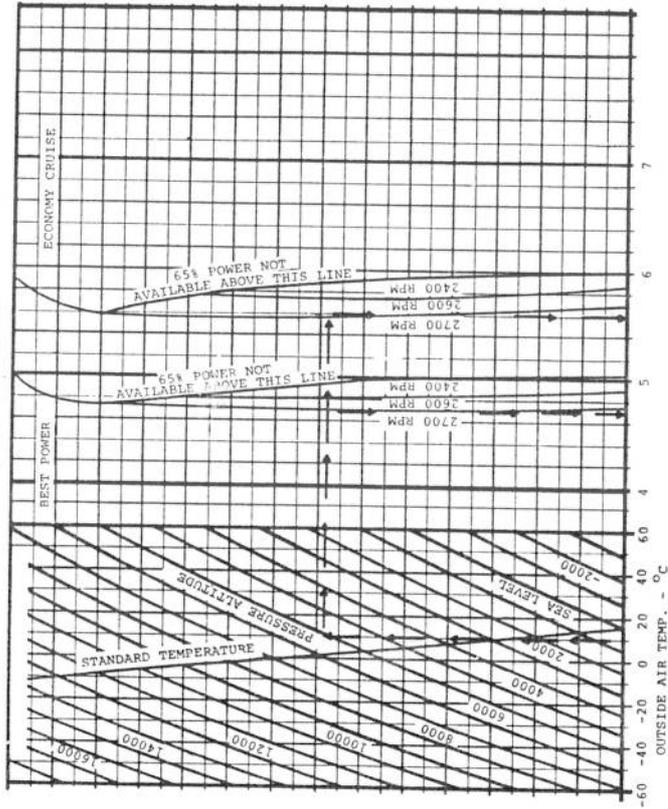
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5-27

SECTION V
PERFORMANCE

ENDURANCE 65% - 2740 LBS (1243 KGS)



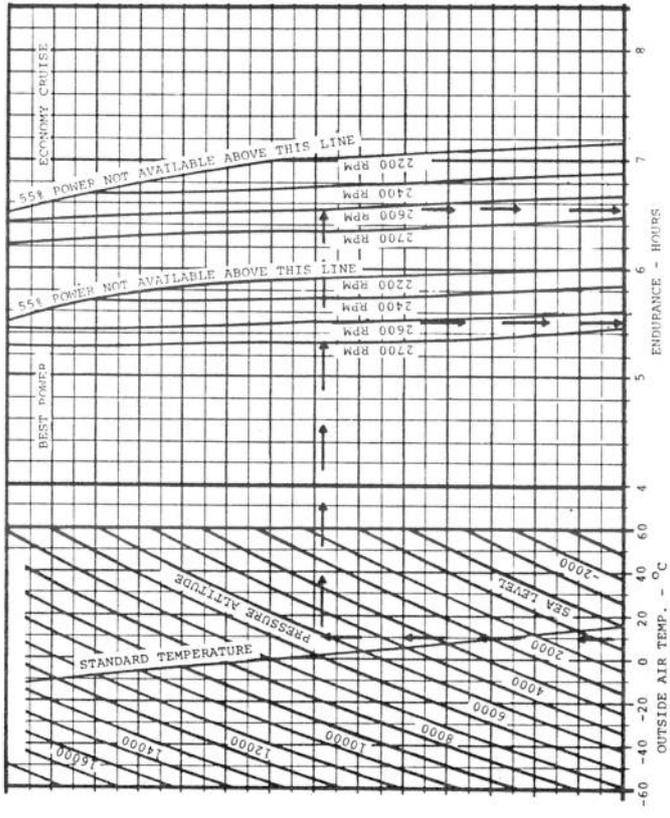
CLEAN CONFIGURATION
64 GAL. USABLE FUEL (53.3 IMP. GAL.)
COWL FLAPS CLOSED, ZERO WIND
ENDURANCE INCLUDES WARMUP, TAXI,
TAKEOFF, CLIMB PLUS 45 MIN.
RESERVE & CRUISE POWER

EXAMPLE: →
CRUISE PRESS ALT 6000 FT.
CRUISE ONT 10°C
*POWER 65%
*RPM 2700 RPM
ENDURANCE, BEST POWER 4.70 HRS.
ENDURANCE, ECON. CRUISE 5.60 HRS.

*MP FOR 2700 RPM @ 65% POWER FROM
CRUISE POWER SCHEDULE.

SECTION V
PERFORMANCE

ENDURANCE 55% POWER - 2740 LBS (1243 KGS)



CLEAN CONFIGURATION
64 GAL. USNAFUEL (53.3 IMP. GAL.)
WING FLAPS DOWN, COM. FLAPS CLOSED
ENDURANCE INCLUDES WARMUP, TAXI,
TAKEOFF, CLIMB PLUS 45 MIN.
RESERVE & CRUISE POWER

EXAMPLE: → 6000 FT.
CRUISE ALT
CRUISE ONT 10°C
*POWER 52%
*RPM 2600
ENDURANCE, BEST POWER 5.52 HRS.
ENDURANCE, ECON. CRUISE 6.55 HRS.

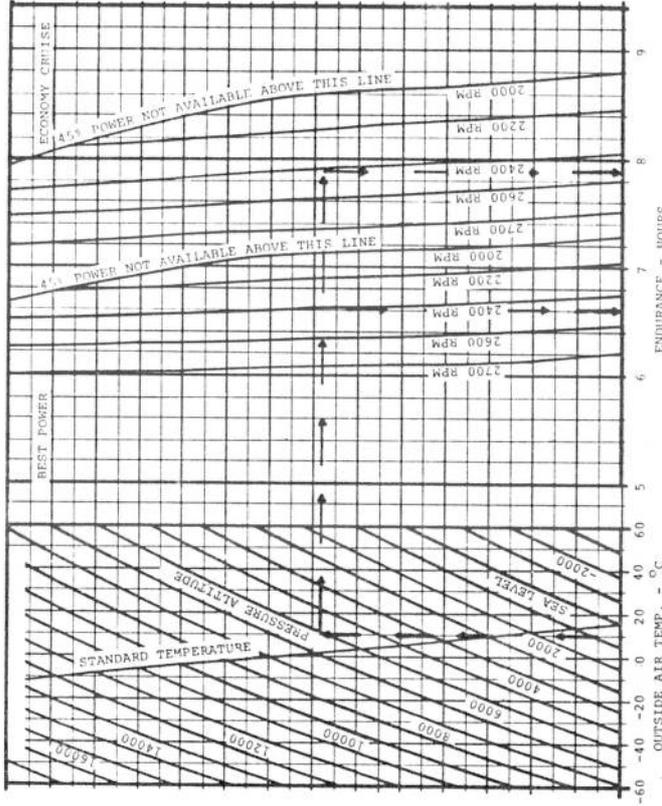
*MP FOR 2600 RPM @ 55% POWER FROM
CRUISE POWER SCHEDULE

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SECTION V
PERFORMANCE

ENDURANCE 45% POWER - 2740 LBS (1243 KGS)



CLEAN CONFIGURATION
64 GAL. USABLE FUEL (53.3 IMP. GAL.)
ZERO WIND, COML. FLAPS CLOSED
ENDURANCE INCLUDES WARMUP,
TAXI, TAKEOFF, CLIMB PLUS 45 MIN.
RESERVE & CRUISE POWER

EXAMPLE:
↑ CRUISE ALT 6000 FT.
CRUISE ON 45°C
* POWER 2400 RPM
* RPM 2400 RPM
ENDURANCE, BEST POWER 6.62 HRS.
ENDURANCE, ECON. CRUISE 7.91 HRS.
*MP FOR 2400 RPM @ 45% POWER FROM
CRUISE POWER SCHEDULE.

SECTION V PERFORMANCE

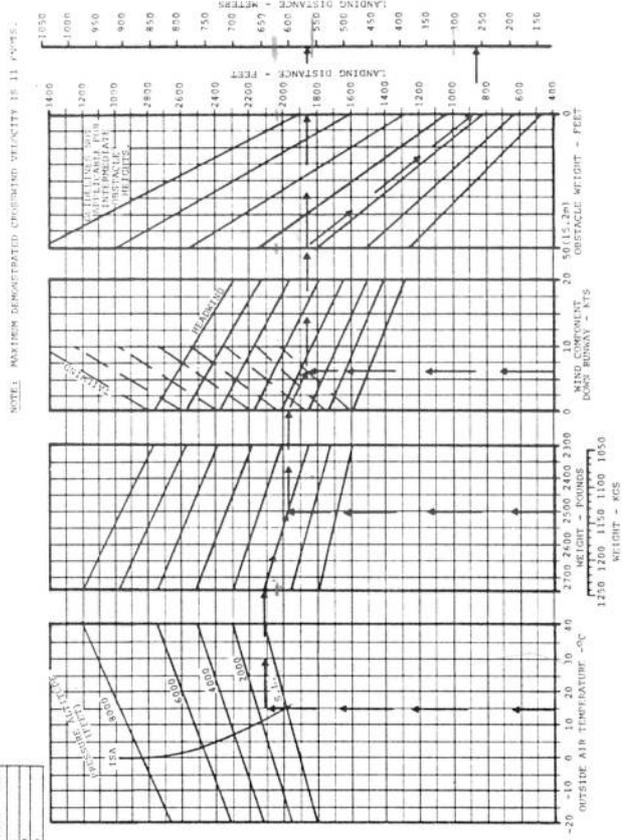
NORMAL LANDING DISTANCE

LANDING HEIGHT - LOS (FWS)	APPROACH SPEED - KTS
2150 (1243)	71
2000 (1103)	65

ASSOCIATED CONDITIONS:

THROTTLE IDLE
 LANDING GEAR DOWN
 WING FLAPS FULL DOWN (31°)
 RUNWAY PAVED, LEVEL, DRY
 BRAKING MAXIMUM

EXAMPLE: →
 DAY 15°C
 ALTITUDE 1500 FT.
 AIR DENSITY 2500 LBS. (1114 KGS)
 WEIGHT 6 KTS.
 HEADWIND 860 FT. (262 M)
 DISTANCE 1860 FT. (567 M)
 TOTAL LANDING 150 FT. OBSTACLE



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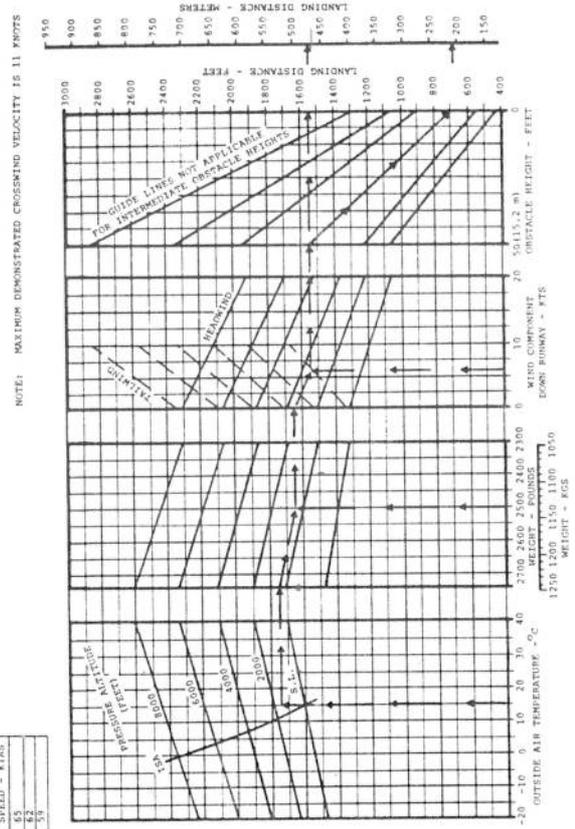
SECTION V
PERFORMANCE

MAXIMUM PERFORMANCE LANDING DISTANCE

LANDING WEIGHT - LBS. KGS.	APPROACH SPEED - KIAS
2740 (1243)	63
2500 (1134)	62
2300 (1041)	59

ASSOCIATED CONDITIONS
 POWER: IDLE
 LANDING GEAR: DOWN
 WING: FULL DOWN
 FLAPS: 0%
 SURFACE: PAVED, LEVEL, DRY
 BRAKING: MAXIMUM

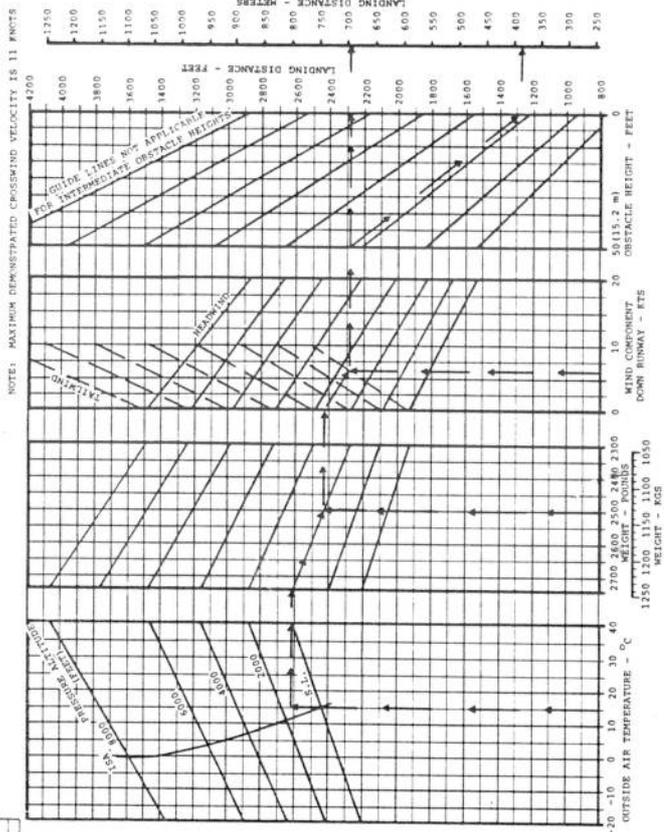
EXAMPLE: →
 OAT: 15°C
 PRESSURE ALTITUDE: 1500 FT
 WEIGHT: 2500 LBS (1134 KGS)
 HEADWIND: 6 KTS
 GROUND ROLL DISTANCE: 680 FT (207m)
 TOTAL LANDING DISTANCE: 1550 FT (472m)
 DISTANCE 150 FT (45.7m) (OBSTACLE)



SECTION V
PERFORMANCE

NORMAL LANDING DISTANCE-GRASS SURFACE

LANDING WEIGHT - LBS (KGS)	APPROACH SPEED - KIAS
2700 (1243)	71
2500 (1134)	69
2300 (1043)	67



ASSOCIATED CONDITIONS:

POWER LEANING UP
FLAP DOWN
WING FLAPS FULL DOWN (13°)
RUNWAY SHORT, DRY
SURFACE GRASS, LEVEL
BRAKING MAXIMUM

EXAMPLE:
OAT 15°C
PRESSURE 1500 FT.
ALTITUDE 2500 LBS.
WEIGHT (1134 KGS)
HEADWIND 6 KTS.
GROUND ROLL 1270 FT.
(387 M)
TOTAL LANDING DISTANCE 2280 FT.
(695 M)
(50 FT. OBSTACLE)

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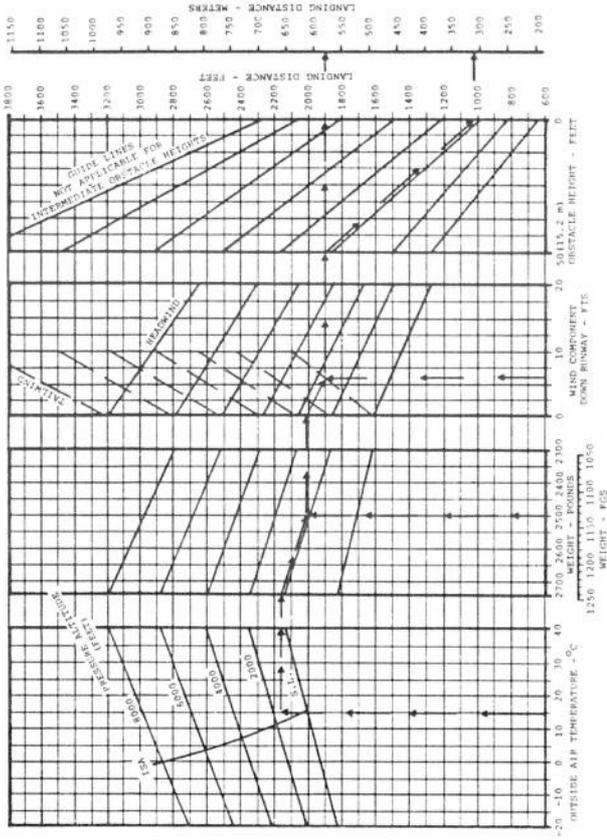
5-33

SECTION V
PERFORMANCE

MAXIMUM PERFORMANCE LANDING DISTANCE-GRASS SURFACE

LANDING WEIGHT - LBS. (KGS.)	INTERPOLATED SPEED - KTS.
2140 (1324.1)	65
2100 (1134.1)	62
2100 (1104.1)	59

NOTE: MAXIMUM DEMONSTRATED CRUISING VELOCITY IS 111 KNOTS



ASSOCIATED CONDITIONS:

- POWER: IDLE
- LANDING: 30MPH
- CLUB: 30MPH
- WING FLAPS: FULL DOWN
- RUNWAY SURFACE: SHORT DRY
- BRKING: GRASS, LEVEL
- BRKING: MAXIMUM

EXAMPLE:

- GMT: 15°C
- PRESSURE ALTITUDE: 1500 FT.
- WEIGHT: 2100 LBS. (1114 KGS.)
- WIND COMPONENT: 6 KTS.
- GRASS ROLL: 1020 FT. (311 M.)
- TOTAL LANDING DISTANCE: 1074 FT. (327 M.)