

**SECTION 5  
PERFORMANCE  
TABLE OF CONTENTS**

	<b>Page</b>
Introduction .....	5-5
Use Of Performance Charts.....	5-6
Sample Problem .....	5-6
Takeoff.....	5-7
Cruise .....	5-8
Fuel Required .....	5-9
Landing .....	5-11
Figure 5-1 Airspeed Calibration - Normal Static Source .....	5-12
Airspeed Calibration - Alternate Static Source .....	5-13
Figure 5-2 Altimeter Correction - Alternate Static Source .....	5-14
Figure 5-2A Pressure Conversion - Inches of Mercury to Millibars .....	5-15
Figure 5-3 Temperature Conversion Chart .....	5-16
Figure 5-4 ISA Conversion And Operating Temperature Limits	
Airplanes With Standard Capacity Oil Cooler .....	5-17
ISA Conversion And Operating Temperature Limits	
Airplanes With Large Capacity Oil Cooler .....	5-18
Figure 5-5 Stall Speeds .....	5-19
Figure 5-6 Wind Components .....	5-20
Figure 5-7 Engine Torque For Takeoff	
Airplanes With Standard Capacity Oil Cooler.....	5-21
Engine Torque For Takeoff	
Airplanes With Large Capacity Oil Cooler .....	5-22
Figure 5-7A Maximum Engine Torque For Climb.....	5-23
<b>AIRPLANES WITHOUT CARGO POD</b>	
Figure 5-8 Takeoff Distance - 8000 Lbs.....	5-24
Takeoff Distance - 7500 Lbs And 7000 Lbs .....	5-25
Figure 5-8A Takeoff Distance, Flaps 0° - 8000 Lbs .....	5-26
Takeoff Distance, Flaps 0° - 7500 Lbs And 7000 Lbs .....	5-27
Figure 5-9 Rate-Of-Climb - Takeoff Flap Setting .....	5-28
Figure 5-10 Maximum Rate-Of-Climb - Flaps Up .....	5-29
Figure 5-11 Cruise Climb - Flaps Up - 120 KIAS.....	5-30
Figure 5-12 Rate-Of-Climb - Balked Landing .....	5-31
Figure 5-13 Time, Fuel, And Distance To Climb	
- Maximum Rate-Of-Climb.....	5-32
Time, Fuel, And Distance To Climb	
- Cruise Climb - 120 KIAS .....	5-33

(Continued Next Page)

**TABLE OF CONTENTS** (Continued)

	<b>Page</b>
Figure 5-14	Cruise Performance - Notes . . . . . 5-34
	Cruise Performance - 2000 Feet . . . . . 5-35
	Cruise Performance - 4000 Feet . . . . . 5-36
	Cruise Performance - 6000 Feet . . . . . 5-37
	Cruise Performance - 8000 Feet . . . . . 5-38
	Cruise Performance - 10,000 Feet . . . . . 5-39
	Cruise Performance - 12,000 Feet . . . . . 5-40
	Cruise Performance - 14,000 Feet . . . . . 5-41
	Cruise Performance - 16,000 Feet . . . . . 5-42
	Cruise Performance - 18,000 Feet . . . . . 5-43
	Cruise Performance - 20,000 Feet . . . . . 5-44
	Cruise Performance - 22,000 Feet . . . . . 5-45
	Cruise Performance - 24,000 Feet . . . . . 5-46
	Cruise Performance - 26,000 Feet . . . . . 5-47
	Cruise Performance - 28,000 Feet . . . . . 5-48
	Cruise Performance - 30,000 Feet . . . . . 5-49
Figure 5-14A	Cruise Maximum Torque 1000 thru 5000 Feet . . . . . 5-50
	Cruise Maximum Torque 6000 thru 10,000 Feet . . . . . 5-51
	Cruise Maximum Torque 11,000 thru 15,000 Feet . . . . . 5-52
	Cruise Maximum Torque 16,000 thru 20,000 Feet . . . . . 5-53
	Cruise Maximum Torque 21,000 thru 25,000 Feet . . . . . 5-54
	Cruise Maximum Torque 26,000 thru 30,000 Feet . . . . . 5-55
Figure 5-15	Fuel And Time Required - Maximum Cruise Power . . . . . 5-56
Figure 5-16	Fuel And Time Required - Maximum Range Power . . . . . 5-57
Figure 5-17	Range Profile . . . . . 5-58
Figure 5-18	Endurance Profile . . . . . 5-59
Figure 5-19	Time, Fuel, And Distance To Descend . . . . . 5-60
Figure 5-20	Landing Distance - 7800 Lbs . . . . . 5-61
	Landing Distance - 7300 Lbs and 6800 Lbs . . . . . 5-62

(Continued Next Page)

**TABLE OF CONTENTS** (Continued)

Page

**AIRPLANES WITH CARGO POD INSTALLED**

Figure 5-21	Takeoff Distance - 8000 Lbs . . . . .	5-63
	Takeoff Distance - 7500 Lbs And 7000 Lbs . . . . .	5-64
Figure 5-21A	Takeoff Distance, Flaps 0° - 8000 Lbs . . . . .	5-65
	Takeoff Distance, Flaps 0° - 7500 Lbs And 7000 Lbs. . . . .	5-66
Figure 5-22	Rate-Of-Climb - Takeoff Flap Setting . . . . .	5-67
Figure 5-23	Maximum Rate-Of-Climb - Flaps Up . . . . .	5-68
Figure 5-24	Cruise Climb - Flaps Up - 120 KIAS . . . . .	5-69
Figure 5-25	Rate-Of-Climb - Balked Landing. . . . .	5-70
Figure 5-26	Time, Fuel, And Distance To Climb - Maximum Rate-Of-Climb . . . . .	5-71
	Time, Fuel, And Distance To Climb - Cruise Climb - 120 KIAS . . . . .	5-72
Figure 5-27	Cruise Performance - Notes . . . . .	5-73
	Cruise Performance - 2000 Feet . . . . .	5-74
	Cruise Performance - 4000 Feet . . . . .	5-75
	Cruise Performance - 6000 Feet . . . . .	5-76
	Cruise Performance - 8000 Feet . . . . .	5-77
	Cruise Performance - 10,000 Feet . . . . .	5-78
	Cruise Performance - 12,000 Feet . . . . .	5-79
	Cruise Performance - 14,000 Feet . . . . .	5-80
	Cruise Performance - 16,000 Feet . . . . .	5-81
	Cruise Performance - 18,000 Feet . . . . .	5-82
	Cruise Performance - 20,000 Feet . . . . .	5-83
	Cruise Performance - 22,000 Feet . . . . .	5-84
	Cruise Performance - 24,000 Feet . . . . .	5-85
	Cruise Performance - 26,000 Feet . . . . .	5-86
	Cruise Performance - 28,000 Feet . . . . .	5-87
	Cruise Performance - 30,000 Feet . . . . .	5-88
Figure 5-27A	Cruise Maximum Torque 1000 thru 5000 Feet . . . . .	5-89
	Cruise Maximum Torque 6000 thru 10,000 Feet . . . . .	5-90
	Cruise Maximum Torque 11,000 thru 15,000 Feet . . . . .	5-91
	Cruise Maximum Torque 16,000 thru 20,000 Feet . . . . .	5-92
	Cruise Maximum Torque 21,000 thru 25,000 Feet . . . . .	5-93
	Cruise Maximum Torque 26,000 thru 30,000 Feet . . . . .	5-94
Figure 5-28	Fuel And Time Required - Maximum Cruise Power. . . . .	5-95
Figure 5-29	Fuel And Time Required - Maximum Range Power . . . . .	5-96
Figure 5-30	Range Profile . . . . .	5-97
Figure 5-31	Endurance Profile . . . . .	5-98
Figure 5-32	Time, Fuel, And Distance To Descend . . . . .	5-99
Figure 5-33	Landing Distance - 7800 Lbs . . . . .	5-100
	Landing Distance - 7300 Lbs And 6800 Lbs. . . . .	5-101/5-102

## INTRODUCTION

Performance data charts on the following pages are presented so that you may know what to expect from the airplane under various conditions, and also, to facilitate the planning of flights in detail and with reasonable accuracy. The data in the charts has been computed from actual flight tests using average piloting techniques and an airplane and engine in good condition and equipped with a Hartzell propeller. Airplanes equipped with a McCauley propeller will have comparable performance and should also use the data shown.

### WARNING

**TO ENSURE THAT PERFORMANCE IN THIS SECTION CAN BE DUPLICATED, THE AIRPLANE AND ENGINE MUST BE MAINTAINED IN GOOD CONDITION. PILOT PROFICIENCY AND PROPER PREFLIGHT PLANNING USING DATA NECESSARY FOR ALL FLIGHT PHASES IS ALSO REQUIRED TO ASSURE EXPECTED PERFORMANCE WITH AMPLE MARGINS OF SAFETY.**

It should be noted that the performance information presented in the range and endurance profile charts allows for 45 minutes reserve fuel at the specified cruise power and altitude. Some indeterminate variables such as engine and propeller condition, and air turbulence may account for variations of 10% or more in range and endurance. Therefore, it is important to utilize all available information to estimate the fuel required for the particular flight.

Notes have been provided on various graphs and tables to approximate performance with the inertial separator in BYPASS and/or cabin heat on. The effect will vary, depending upon airspeed, temperature, and altitude. At lower altitudes, where operation at the torque limit is possible, the effect of the inertial separator will be less, depending upon how much power can be recovered after the separator vanes have been extended.

In some cases, performance charts in this section include data for temperatures which are outside of the operating limits (Figure 5-4). This data has been included to aid in interpolation.

## USE OF PERFORMANCE CHARTS

Performance data is presented in tabular or graphical form to illustrate the effect of different variables. Sufficiently detailed information is provided in the tables so that conservative values can be selected and used to determine the particular performance figure with reasonable accuracy.

### SAMPLE PROBLEM

The following sample flight problem utilizes information from the various charts to determine the predicted performance data for a typical flight of an airplane not equipped with a cargo pod. A similar calculation can be made for an airplane with a cargo pod using charts identified as appropriate for this configuration. The following information is known:

#### AIRPLANE CONFIGURATION (WITHOUT CARGO POD)

Takeoff weight	7850 Pounds
Usable fuel	2224 Pounds

#### TAKEOFF CONDITIONS

Field pressure altitude	3500 Feet
Temperature	16°C (8°C above standard)
Wind component along runway	12 Knot Headwind
Field length	4000 Feet

#### CRUISE CONDITIONS

Total distance	650 Nautical Miles
Pressure altitude	11,500 Feet
Temperature	8°C
Expected wind enroute	10 Knot Headwind

#### LANDING CONDITIONS

Field pressure altitude	1500 Feet
Temperature	25°C
Field length	3000 Feet

(Continued Next Page)

## USE OF PERFORMANCE CHARTS (Continued)

### TAKEOFF

The Takeoff Distance chart, Figure 5-8, should be consulted, keeping in mind that the distances shown are based on the short field technique. Conservative distances can be established by reading the chart at the next higher value of weight, altitude and temperature. For example, in this particular sample problem, the takeoff distance information presented for a weight of 8000 pounds, pressure altitude of 4000 feet and a temperature of 20°C should be used and results in the following:

Ground roll	1580 Feet
Total distance to clear a 50-foot obstacle	2835 Feet

These distances are well within the available takeoff field length. However, a correction for the effect of wind may be made based on Note 2 of the takeoff chart. The correction for a 12 knot headwind is:

$$\frac{12 \text{ Knots}}{11 \text{ Knots}} \times 10\% = 11\% \text{ Decrease}$$

This results in the following distances, corrected for wind:

Ground roll, zero wind	1580
Decrease in ground roll (1580 feet X 11%)	<u>174</u>
Corrected ground roll	1406 Feet
Total distance to clear a 50-foot obstacle, zero wind	2835
Decrease in total distance (2835 feet X 11%)	<u>312</u>
Corrected total distance to clear a 50-foot obstacle	2523 Feet

The Engine Torque For Takeoff chart, Figure 5-7, should be consulted for takeoff power setting. For the above ambient conditions, the power setting is:

Takeoff torque	1658 Ft-Lbs
----------------	-------------

(Continued Next Page)

## USE OF PERFORMANCE CHARTS (Continued)

### Cruise

The cruising altitude should be selected based on a consideration of trip length, winds aloft, and the airplane's performance. A cruising altitude and the expected wind enroute have been given for this sample problem. However, the power setting selection for cruise must be determined based on several considerations. These include the cruise performance characteristics presented in Figure 5-14, the Fuel And Time Required charts presented in Figures 5-15 and 5-16, the Range Profile chart presented in Figure 5-17, and the Endurance Profile chart presented in Figure 5-18.

The Range Profile chart, Figure 5-17, shows range at maximum cruise power and also at maximum range power. For this sample problem, maximum cruise power and 1900 RPM will be used.

The Cruise Performance chart for 12,000 feet pressure altitude is entered using 10°C temperature. These values most nearly correspond to the planned altitude and expected temperature conditions. The torque setting for maximum cruise power is 1251 Ft-Lbs torque at 1900 RPM which results in the following:

True airspeed	170 Knots
Cruise fuel flow	300 PPH

## FUEL REQUIRED

The total fuel requirement for the flight may be estimated using the performance information in Figures 5-13, 5-14 and 5-19 or in Figures 5-15 and 5-16. The longer detailed method will be used for this sample problem, but the use of Figures 5-15 and 5-16 will provide the desired information for most flight planning purposes.

Assuming a maximum climb, Figure 5-13 may be used to determine the time, fuel and distance to climb by reading values for a weight of 8000 pounds and a temperature 20°C above standard. The difference between the values shown in the table for 4000 feet and 12,000 feet results in the following:

Time	11 Minutes
Fuel	62 Pounds
Distance	22 Nautical Miles

Similarly, Figure 5-19 shows that a descent from 12,000 feet to sea level results in the following:

Time	15 Minutes
Fuel	68 Pounds
Distance	43 Nautical Miles

The distances shown on the climb and descent charts are for zero wind. A correction for the effect of wind may be made as follows:

Distance during climb with no wind	22
Decrease in distance due to wind (11/60 X 10 knot headwind)	<u>2</u>
Corrected distance to climb	20 Nautical Miles

Similarly, the distance for descent may be corrected for the effect of wind and results in 40 nautical miles

The cruise distance is then determined by subtracting the distance during climb and distance during descent.

Total distance	650
Distance during climb and descent	<u>-60</u>
Cruise distance	590 Nautical Miles

(Continued Next Page)



### FUEL REQUIRED (Continued)

With an expected 10 knot headwind, the ground speed for cruise is predicted to be:

$$\begin{array}{r} 170 \\ -10 \\ \hline 160 \text{ Knots} \end{array}$$

Therefore, the time required for the cruise portion of the trip is:

$$\frac{590 \text{ Nautical Miles}}{160 \text{ Knots}} = 3.7 \text{ Hours}$$

The fuel required for cruise is:

$$3.7 \text{ hours} \times 300 \text{ pounds/hour} = 1110 \text{ Pounds}$$

A 45-minute reserve requires:

$$\frac{45}{60} \times 300 \text{ pounds/hour} = 225 \text{ Pounds}$$

The total estimated fuel required is as follows:

Engine start, taxi, and takeoff	35
Climb	62
Cruise	1110
Descent	68
Reserve	<u>225</u>
Total fuel required	1500 Pounds

Once the flight is underway, ground speed checks will provide a more accurate basis for estimating the time enroute and the corresponding fuel required to complete the trip with ample reserve.

## LANDING

A procedure similar to takeoff should be used for estimating the landing distance at the destination airport. The estimated landing weight is as follows:

Takeoff weight	7850
Fuel required for climb, cruise, and descent	<u>1275</u>
Landing weight	6575 Pounds

Figure 5-20 presents landing distance information for the short field technique. The landing distances for a weight of 6800 pounds and corresponding to 2000 feet pressure altitude and a temperature of 30°C should be used and are as follows:

Ground roll	705 Feet
Total distance to clear a 50-foot obstacle	1610 Feet

A correction for the effect of wind may be made based on Note 2 of the landing chart using the same procedure as outlined for takeoff.

**AIRSPEED CALIBRATION**  
**NORMAL STATIC SOURCE**

CONDITIONS:

8000 Pounds.

Power required for level flight or maximum power for descent.

NOTE:

Where airspeed values have been replaced by dashes, the airspeed would be either below stall speed at maximum weight or above the maximum approved operating limit speed for the condition.

FLAPS UP									
KIAS	---	80	100	120	140	160	175	---	
KCAS	---	79	98	118	139	160	175	---	
FLAPS 10°									
KIAS	75	80	100	120	140	160	175	---	
KCAS	75	79	98	118	139	160	175	---	
FLAPS 20°									
KIAS	65	70	80	90	100	110	130	150	
KCAS	66	70	79	89	99	109	129	150	
FLAPS 30°									
KIAS	65	70	80	90	100	110	125	---	
KCAS	65	69	79	89	99	110	125	---	

Figure 5-1. Airspeed Calibration (Sheet 1 of 2)

**AIRSPPEED CALIBRATION**

**ALTERNATE STATIC SOURCE**

**VENTS CLOSED**

<b>FLAPS UP</b>							
<b>NORMAL KIAS</b>	80	100	120	140	160	175	—
<b>ALTERNATE KIAS</b>	80	101	123	144	166	183	—
<b>FLAPS 10°</b>							
<b>NORMAL KIAS</b>	70	80	100	120	140	160	175
<b>ALTERNATE KIAS</b>	73	81	103	124	146	167	183
<b>FLAPS 20°</b>							
<b>NORMAL KIAS</b>	60	70	80	100	120	140	150
<b>ALTERNATE KIAS</b>	61	71	82	103	125	146	156
<b>FLAPS 30°</b>							
<b>NORMAL KIAS</b>	60	70	80	90	100	110	125
<b>ALTERNATE KIAS</b>	63	71	82	93	104	115	130

**VENTS OPEN**

<b>FLAPS UP</b>							
<b>NORMAL KIAS</b>	80	100	120	140	160	175	—
<b>ALTERNATE KIAS</b>	75	95	117	139	161	177	—
<b>FLAPS 10°</b>							
<b>NORMAL KIAS</b>	70	80	100	120	140	160	175
<b>ALTERNATE KIAS</b>	69	78	100	121	143	164	180
<b>FLAPS 20°</b>							
<b>NORMAL KIAS</b>	60	70	80	100	120	140	150
<b>ALTERNATE KIAS</b>	58	69	79	100	122	144	154
<b>FLAPS 30°</b>							
<b>NORMAL KIAS</b>	60	70	80	90	100	110	125
<b>ALTERNATE KIAS</b>	60	69	80	91	102	113	128

Figure 5-1. Airspeed Calibration (Sheet 2 of 2)

**ALTIMETER CORRECTION**  
**ALTERNATE STATIC SOURCE**

**NOTES:**

1. Add correction to desired altitude to obtain indicated altitude to fly.
2. Where altimeter correction values have been replaced by dashes, the correction is unnecessary because of conditions in which airspeed is not attainable in level flight.

**VENTS CLOSED**

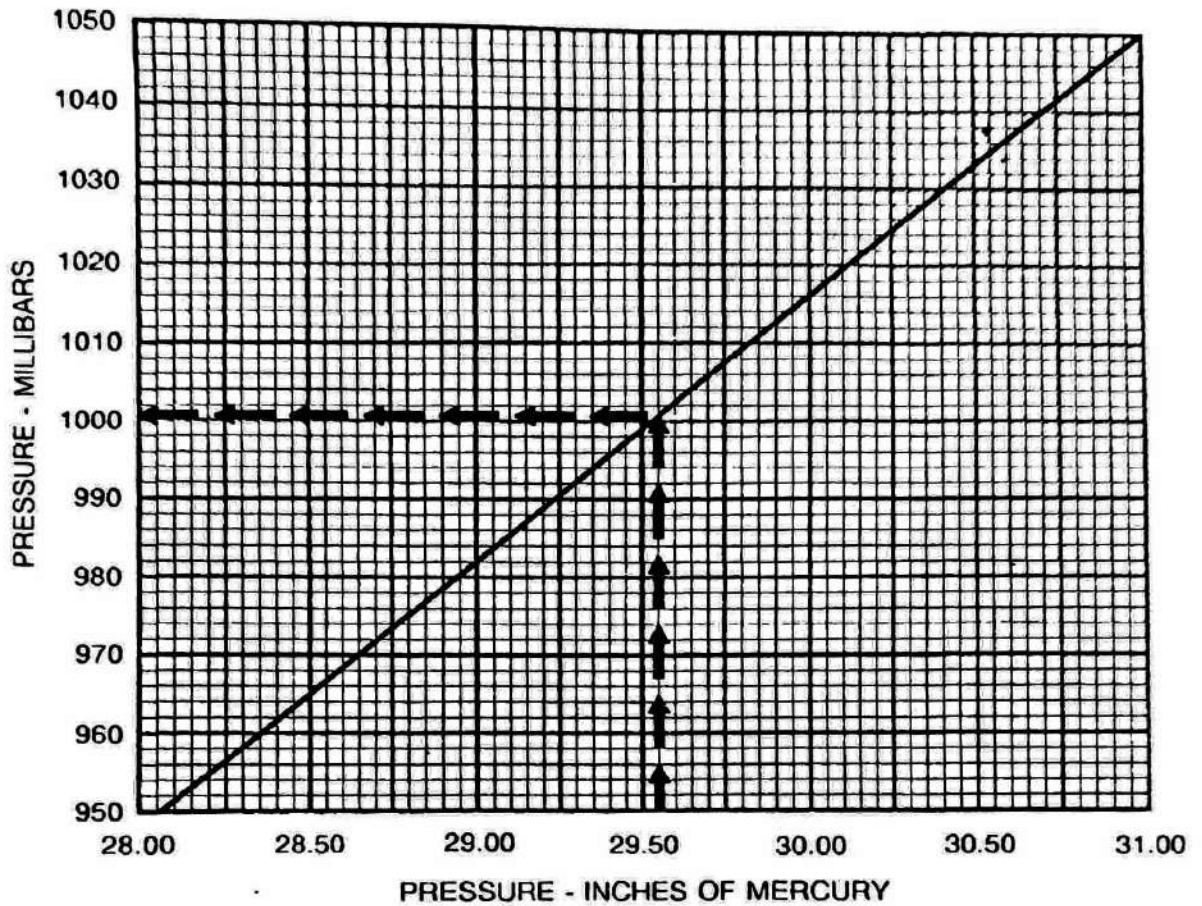
CONDITION	CORRECTION TO BE ADDED - FEET						
	KIAS						
	80	90	100	120	140	160	175
<b>FLAPS UP</b>							
Sea Level	0	15	25	50	75	100	115
10,000 Ft.	5	20	35	70	105	135	155
20,000 Ft.	5	25	45	95	145	185	—
30,000 Ft.	5	35	65	135	205	265	—
<b>FLAPS 10°</b>							
Sea Level	5	20	30	55	85	105	110
10,000 Ft.	5	25	40	80	110	140	150
<b>FLAPS 30°</b>							
Sea Level	20	30	40	60	—	—	—
10,000 Ft.	30	40	55	80	—	—	—

**VENTS OPEN**

CONDITION	CORRECTION TO BE ADDED - FEET						
	KIAS						
	80	90	100	120	140	160	175
<b>FLAPS UP</b>							
Sea Level	-25	-25	-20	-10	5	20	30
10,000 Ft.	-25	-25	-25	-15	5	25	45
20,000 Ft.	-50	-45	-40	-20	5	35	—
30,000 Ft.	-75	-65	-55	-30	10	50	—
<b>FLAPS 10°</b>							
Sea Level	-10	0	10	30	50	70	80
10,000 Ft.	-15	-5	10	40	65	90	105
<b>FLAPS 30°</b>							
Sea Level	5	15	25	40	—	—	—
10,000 Ft.	10	20	30	50	—	—	—

Figure 5-2. Altimeter Correction

### PRESSURE CONVERSION



**EXAMPLE:**

Pressure - 29.55 Inches of Mercury.

Pressure - 1000.6 Millibars.

5984C7002

Figure 5-2A. Pressure Conversion - Inches of Mercury to Millibars

### TEMPERATURE CONVERSION CHART

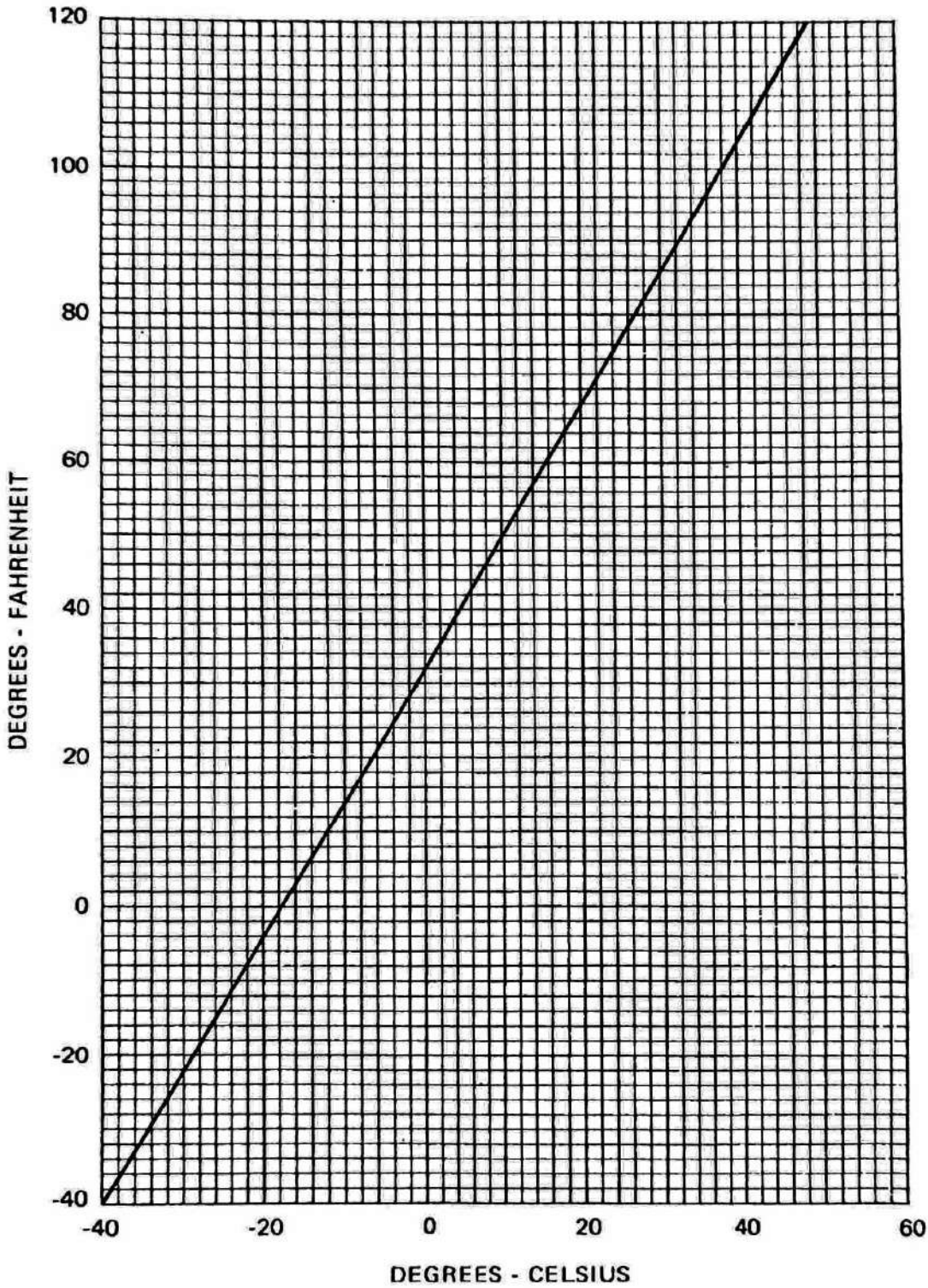


Figure 5-3. Temperature Conversion Chart

## ISA CONVERSION AND OPERATING TEMPERATURE LIMITS

AIRPLANES WITH STANDARD CAPACITY OIL COOLER  
(S/N 20800001 Thru 20800145 Not Modified With Service Kit  
SK208-40)



CAUTION

**Do not operate in shaded area of chart.**

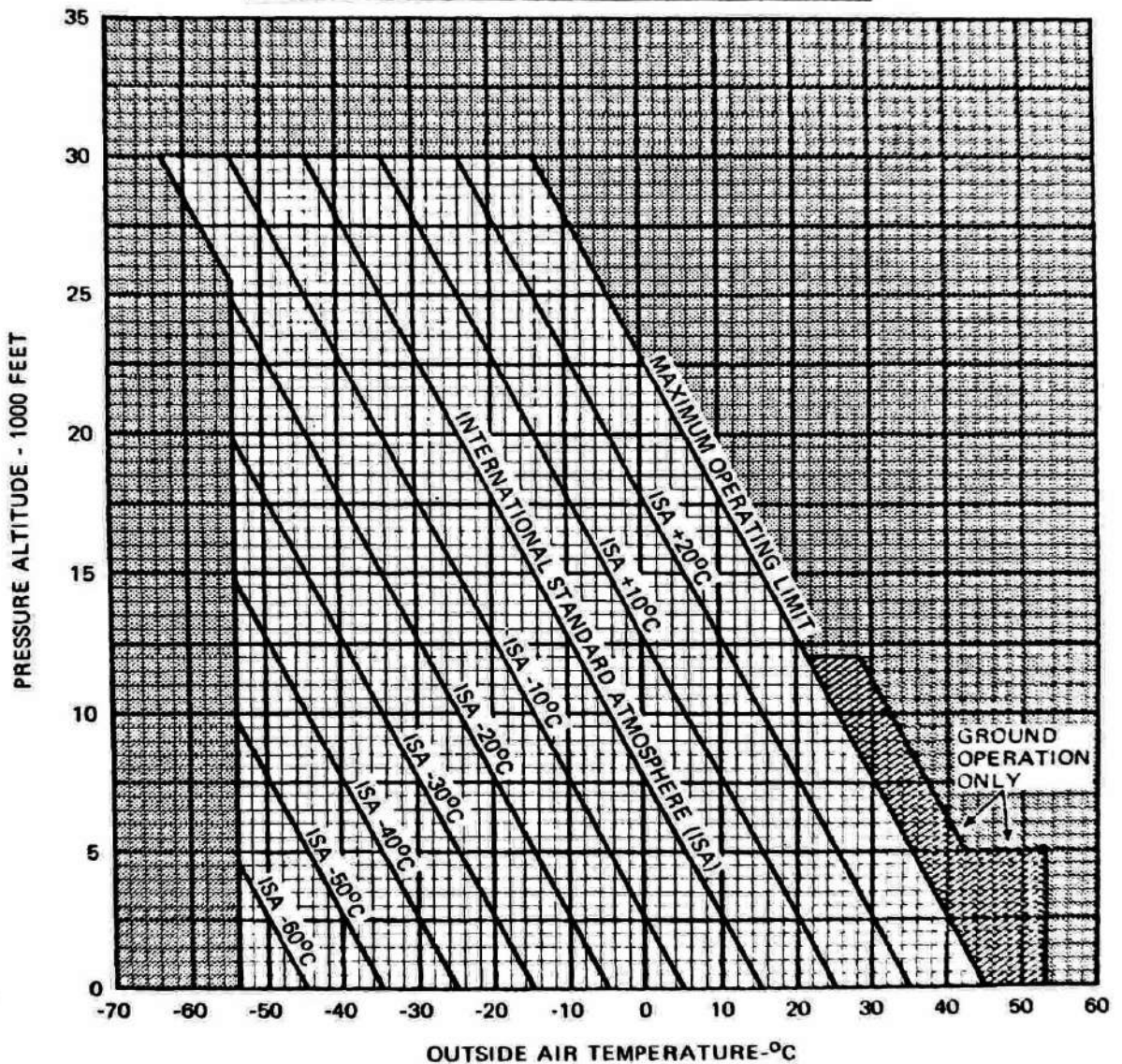


Figure 5-4. ISA Conversion And Operating Temperature Limits  
(Sheet 1 of 2)



## ISA CONVERSION AND OPERATING TEMPERATURE LIMITS

AIRPLANES WITH LARGE CAPACITY OIL COOLER  
(S/N 20800001 Thru 20800145 Modified With Service Kit SK208-40  
And S/N20800146 And On With Large Cooler Installed)



CAUTION

Do not operate in shaded area of chart.

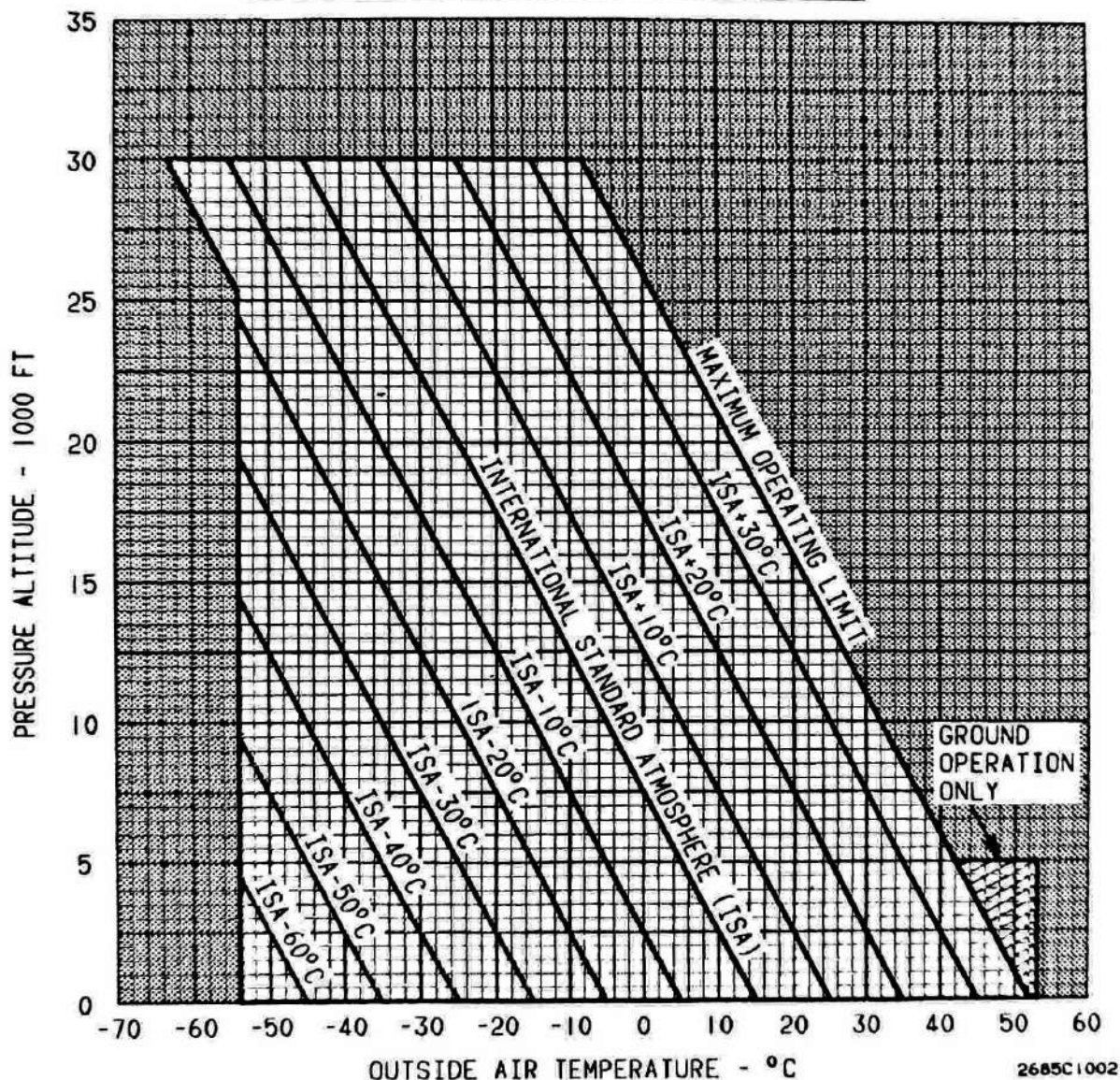


Figure 5-4 ISA Conversion And Operating Temperature Limits  
(Sheet 2 of 2)

### STALL SPEEDS

**CONDITIONS:**

Power Lever - Idle.

Fuel Condition Lever - High Idle.

**NOTES:**

1. Altitude loss during a stall recovery may be as much as 300 feet from a wings-level stall and even greater from a turning stall.

2. KIAS values are approximate.

#### MOST REARWARD CENTER OF GRAVITY

WEIGHT LBS	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
8000	UP	63	75	68	81	75	89	89	106
	10°	60	66	64	71	71	78	85	93
	20°	56	62	60	67	67	74	79	88
	30°	50	61	54	66	59	73	71	86

#### MOST FORWARD CENTER OF GRAVITY

WEIGHT LBS	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
8000	UP	63	75	68	81	75	89	89	106
	10°	61	67	66	72	73	80	86	95
	20°	57	63	61	68	68	75	81	89
	30°	50	61	54	66	59	73	71	86

Figure 5-5. Stall Speeds

# WIND COMPONENTS

## NOTE

1. Maximum demonstrated crosswind velocity is 20 knots (not a limitation).

A39233

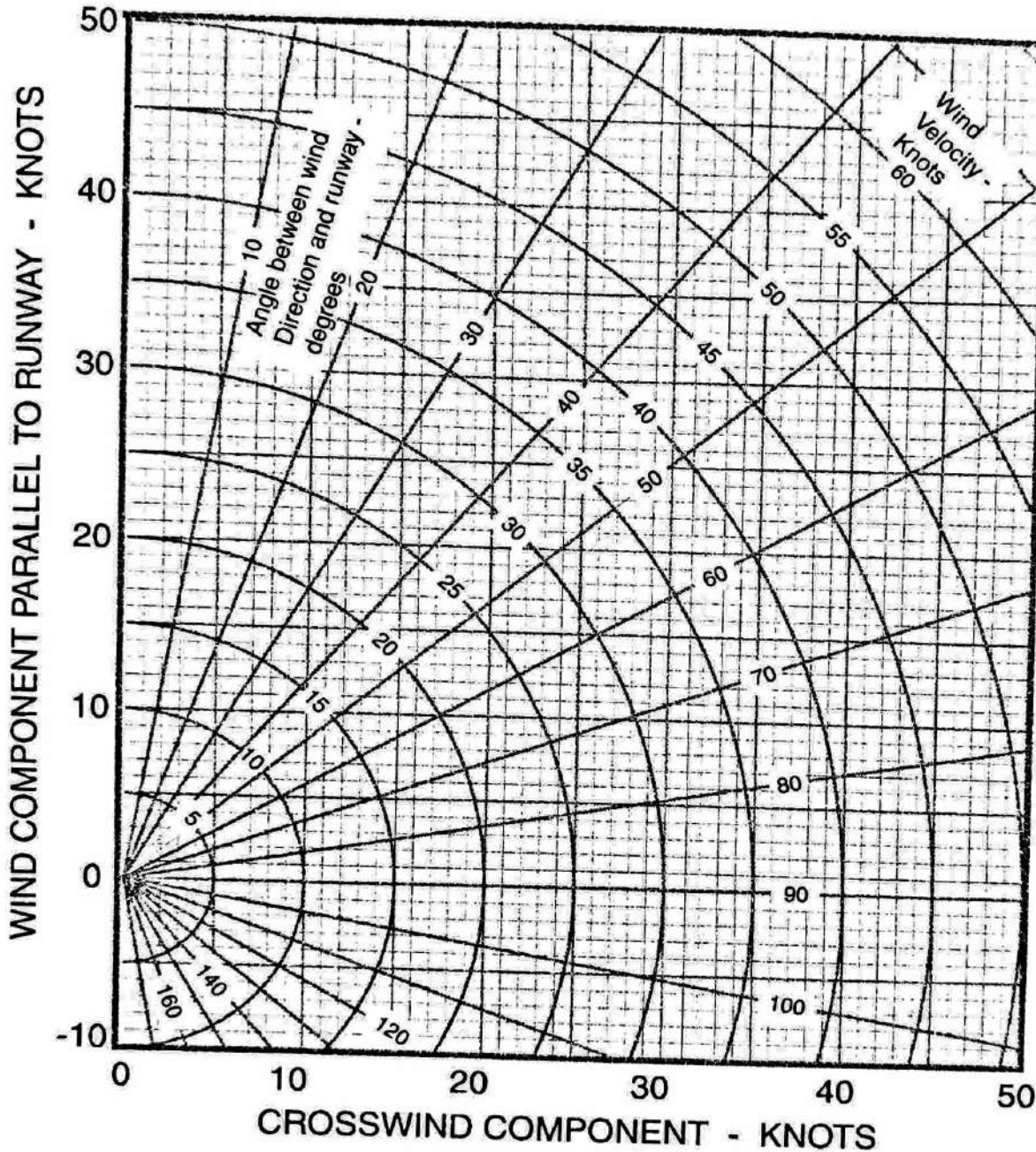


Figure 5-6\*. Wind Component - Knots

## ENGINE TORQUE FOR TAKEOFF

**AIRPLANES WITH STANDARD CAPACITY OIL COOLER  
(S/N 20800001 thru 20800145 not Modified with Service  
Kit SK208-40)**

CONDITIONS:  
1900 RPM  
60 KIAS  
Inertial Separator - Normal

**NOTES:**

1. Torque increases approximately 20 Ft-Lbs from 0 to 60 KIAS.
2. Torque on this chart shall be achieved without exceeding 805°C ITT or 101.6 percent  $N_g$ . When the ITT exceeds 765°C, this power setting is time limited to 5 minutes.
3. With the inertial separator in BYPASS and takeoff power set below the torque limit (1658 Ft-Lbs), decrease torque setting by 20 Ft-Lbs.
4. With the cabin heater on and takeoff power set below the torque limit (1658 Ft-Lbs), decrease torque setting by 55 Ft-Lbs.

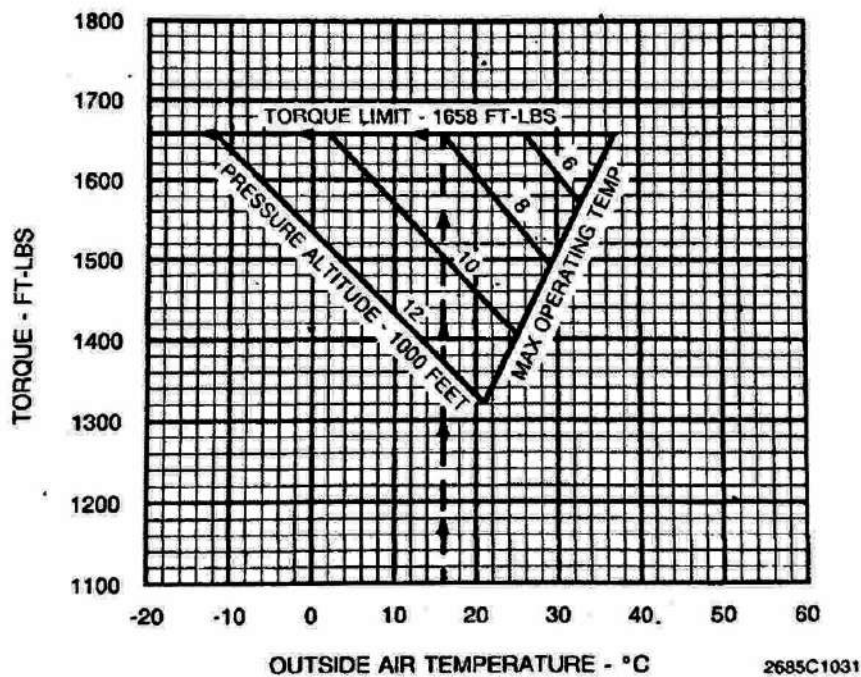


Figure 5-7. Engine Torque for Takeoff (Sheet 1 of 2)

## ENGINE TORQUE FOR TAKEOFF

### AIRPLANES WITH LARGE CAPACITY OIL COOLER (S/N 20800001 thru 20800145 Modified with Service Kit SK208-40 and S/N 20800146 and On)

CONDITIONS:

1900 RPM

60 KIAS

Inertial Separator - Normal

NOTES:

1. Torque increases approximately 20 Ft-Lbs from 0 to 60 KIAS.
2. Torque on this chart shall be achieved without exceeding 805°C ITT or 101.6 percent  $N_g$ . When the ITT exceeds 765°C, this power setting is time limited to 5 minutes.
3. With the inertial separator in BYPASS and takeoff power set below the torque limit (1658 Ft-Lbs), decrease torque setting by 20 Ft-Lbs.
4. With the cabin heater on and takeoff power set below the torque limit (1658 Ft-Lbs), decrease torque setting by 55 Ft-Lbs.

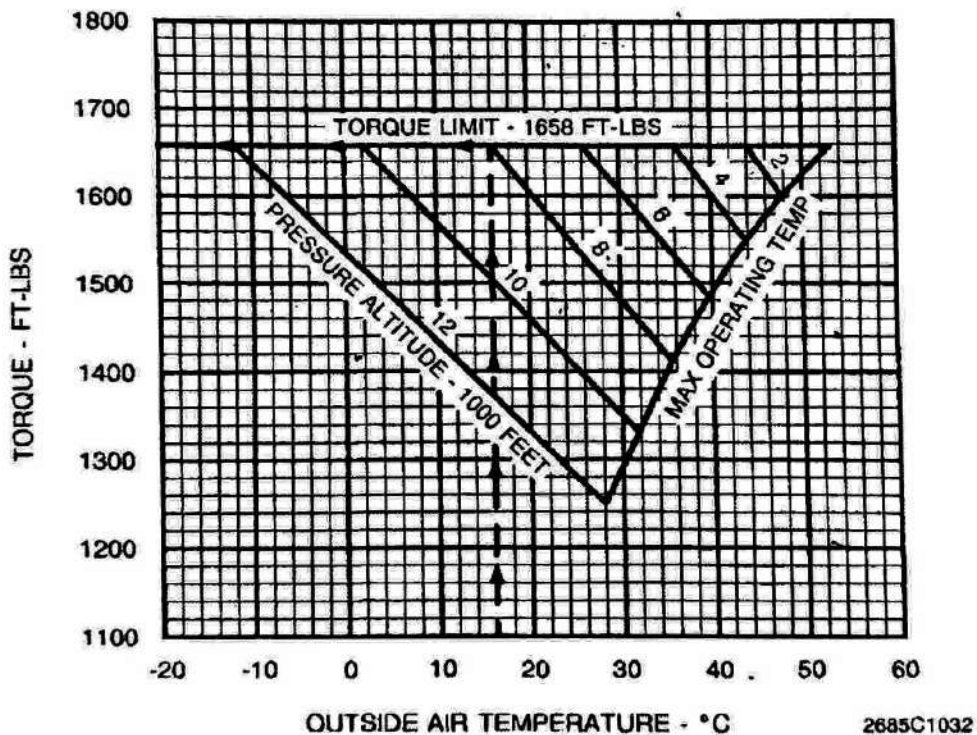


Figure 5-7. Engine Torque for Takeoff (Sheet 2 of 2)

### MAXIMUM ENGINE TORQUE FOR CLIMB

CONDITIONS:

1900 RPM

V<sub>y</sub> KIAS

Inertial Separator - Normal

NOTE

1. Torque on this chart shall be achieved without exceeding 765°C ITT or 101.6 percent N<sub>g</sub>.
2. With the inertial separator in BYPASS, decrease torque setting by 100 Ft-Lbs.
3. With the cabin heater ON, decrease torque setting by 80 Ft-Lbs.

A63521

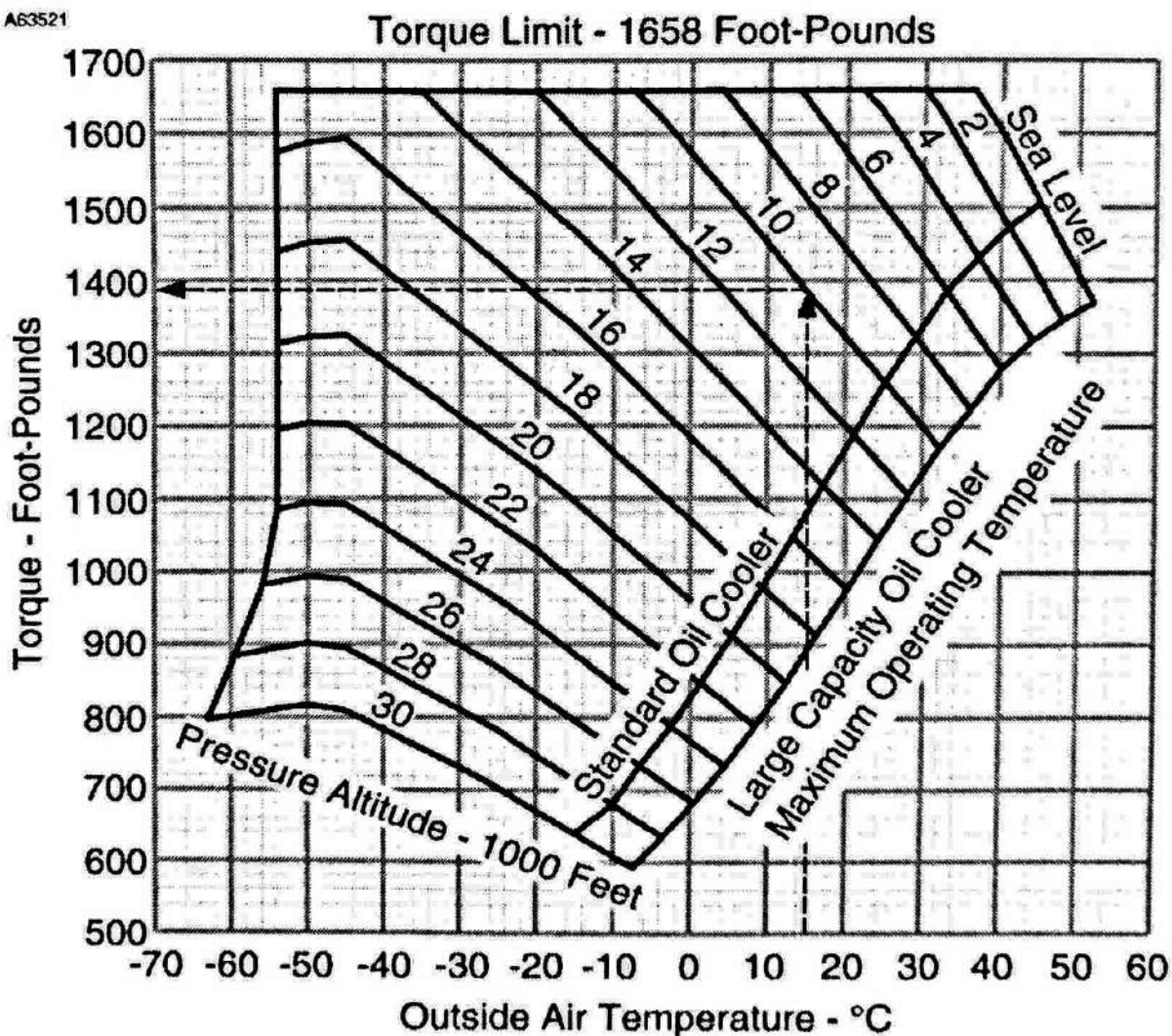


Figure 5-7A\*. Maximum Engine Torque for Climb.

(WITHOUT CARGO POD)

**TAKEOFF DISTANCE  
MAXIMUM WEIGHT 8000 LBS  
SHORT FIELD**

**CONDITIONS:**

Flaps 20°  
1900 RPM  
Inertial Separator - Normal  
Cabin Heat - Off  
Torque Set per Figure 5-7  
Paved, Level, Dry Runway  
Zero Wind

**NOTES:**

1. Short field technique as specified in Section 4.
2. Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
3. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.
4. With takeoff power set below the torque limit (1658 ft-lbs), increase distance (both ground roll and total distance) by 3% for inertial separator in BYPASS and 5% for cabin heat on.
5. Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	-10°C		-0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
8000	72	82	S.L.	1045	1930	1105	2035	1170	2145	1240	2255	1310	2375	1380	2495
			1000	1105	2030	1170	2145	1240	2265	1315	2385	1390	2510	1465	2640
			2000	1170	2140	1245	2265	1320	2390	1395	2525	1475	2655	1555	2800
			3000	1245	2265	1320	2395	1400	2530	1485	2675	1570	2820	1655	2965
			4000	1320	2395	1405	2535	1490	2685	1580	2835	1670	2990	1795	3225
			5000	1405	2535	1490	2685	1585	2845	1680	3005	1775	3175	1975	3590
			6000	1495	2690	1590	2850	1690	3025	1790	3195	1920	3440	2175	4010
			7000	1590	2855	1695	3030	1800	3215	1910	3400	2120	3845	2410	4520
			8000	1695	3040	1805	3225	1920	3420	2070	3705	2350	4325	—	—
			9000	1810	3235	1930	3435	2050	3650	2295	4165	2610	4905	—	—
			10,000	1935	3445	2060	3665	2260	4070	2555	4725	2915	5640	—	—
			11,000	2065	3675	2225	3970	2510	4590	2845	5390	3255	6555	—	—
			12,000	2215	3930	2475	4475	2795	5225	3180	6230	3655	7815	—	—

Figure 5-8. Takeoff Distance (Sheet 1 of 2)

(WITHOUT CARGO POD)

**TAKEOFF DISTANCE  
7500 AND 7000 LBS  
SHORT FIELD**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
7500	70	80	S.L.	1635	890	1720	1815	1000	1055	1910	1115	2005	1175	2105	
			1000	1720	1000	1815	1060	1910	1120	2015	1185	2120	1245	2225	
			2000	1810	1060	1915	1125	2020	1190	2135	1255	2240	1325	2355	
			3000	1915	1060	2020	1190	2135	1260	2250	1335	2370	1410	2495	
			4000	2020	1125	2140	1265	2260	1340	2385	1420	2510	1525	2700	
			5000	2140	1195	2265	1350	2395	1425	2525	1510	2665	1675	2995	
	7000	77	80	6000	2265	1270	2400	2540	1435	1520	2680	1630	2880	1845	3325
				7000	2400	1355	2545	2695	1530	2845	1795	3200	2035	3720	
				8000	2550	1440	2705	2865	1630	3095	1985	3575			
				9000	2710	1540	2880	3050	1740	3460	2205	4025			
				10,000	2885	1640	3065	3390	1920	3895	2455	4570			
				11,000	3075	1755	3310	3795	2125	4395	2735	5220			
7000	67	77	12,000	3280	1875	3710	4280	2360	2675	5010	3060	6045			
			S.L.	1375	755	1450	1525	845	895	1600	945	1685	995	1765	
			1000	1445	800	1525	895	1605	950	1690	1000	1775	1055	1865	
			2000	1525	845	1605	950	1070	1085	1785	1060	1875	1120	1970	
			3000	1605	895	1695	1010	1070	1135	1895	1130	1985	1190	2085	
			4000	1695	950	1790	1075	1135	1205	1995	1200	2100	1290	2255	
	7000	77	77	5000	1790	1010	1895	2000	1205	1285	2240	1275	2400	1415	2485
				6000	1895	1075	2005	2120	1215	2375	1515	2655	1555	2750	
				7000	2010	1145	2125	2250	1290	2575	1670	2950	1710	3055	
				8000	2130	1220	2255	2390	1380	2865	1850	3300			
				9000	2260	1300	2400	2540	1470	3205	2055	3715			
				10,000	2405	1385	2550	2810	1615	3590	2285	4200			
11,000	2555	1480	2750	3130	2015	4055	2550	4785							
12,000	2725	1585	3065	3505	2240	4785									

Figure 5-8. Takeoff Distance (Sheet 2 of 2)



(WITHOUT CARGO POD)

**TAKEOFF DISTANCE**  
**MAXIMUM WEIGHT 8000 LBS**  
**FLAPS 0°**

- NOTES:**
1. Use Type II or Type IV anti-ice fluid takeoff technique as specified in Section 4.
  2. Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
  3. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.
  4. With takeoff power set below the torque limit (1658 ft-lbs), increase distance (both ground roll and total distance) by 3% for inertial separator in BYPASS and 5% for cabin heat on.
  5. Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

**CONDITIONS**  
Flaps 0°  
1900 RPM  
Inertial Separator - Normal  
Cabin Heat - Off  
Torque Set per Figure 5-7  
Paved, Level, Dry Runway  
Zero Wind

WT. LBS	TAKEOFF SPEED KIAS		PRES ALT FT	-20°C		-10°C		0°C		10°C	
	LIFT OFF FT	AT 50 FT		GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS
8000	89	104	SL 2000 4000 6000 8000 10000 12000	1320 1475 1650 1855 2090 2360 2675	2370 2625 2910 3245 3625 4070 4585	1400 1565 1750 1970 2220 2510 2850	2500 2770 3080 3435 3840 4315 4865	1480 1655 1855 2090 2355 2665 3160	2635 2920 3250 3625 4065 4570 5465	1565 1750 1965 2210 2495 2900 3545	2770 3075 3425 3825 4290 4995 6250

Figure 5-8A. Takeoff Distance (Sheet 1 of 2)

(WITHOUT CARGO POD)

**TAKEOFF DISTANCE**  
**7500 and 7000 LBS**  
**FLAPS 0°**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WT LBS	TAKEOFF SPEED KIAS		PRES ALT FT	-20°C		-10°C		0°C		10°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS
7500	89	104	SL	1230	2210	1305	2330	1380	2455	1455	2580
			2000	1370	2445	1455	2580	1540	2720	1630	2865
			4000	1535	2710	1630	2865	1730	3025	1825	3185
			6000	1725	3020	1830	3195	1940	3375	2055	3560
			8000	1945	3375	2065	3575	2190	3780	2320	3990
			10000	2195	3785	2335	4015	2475	4250	2695	4645
7000	89	104	SL	1140	2050	1210	2160	1280	2275	1350	2395
			2000	1270	2265	1350	2390	1430	2520	1510	2655
			4000	1425	2515	1510	2655	1600	2805	1690	2955
			6000	1600	2800	1695	2960	1800	3125	1905	3300
			8000	1800	3130	1910	3310	2025	3500	2145	3695
			10000	2030	3505	2160	3715	2290	3935	2490	4300
			12000	2300	3945	2450	4190	2715	4700	5365	

Figure 5-8A. Takeoff Distance (Sheet 2 of 2)

(WITHOUT CARGO POD)

**RATE OF CLIMB - TAKEOFF FLAP SETTING**

**FLAPS 20°**

CONDITIONS:  
Takeoff Power  
1900 RPM  
Inertial Separator - Normal

- NOTES:
1. Do not exceed torque limit for takeoff per ENGINE TORQUE FOR TAKEOFF chart. When ITT exceeds 765°C, this power setting is time limited to 5 minutes.
  2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
  3. Where rate of climb values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20°C	0°C	20°C	40°C
8000	S.L.	91	930	915	895	875
	2000	91	910	890	870	845
	4000	90	890	870	845	810
	6000	90	865	840	815	680
	8000	89	840	810	775	550
	10,000	89	810	780	630	410
	12,000	88	775	690	490	275
7500	S.L.	90	1040	1020	1005	985
	2000	90	1020	1000	980	960
	4000	89	1000	980	955	920
	6000	89	975	950	925	790
	8000	88	950	925	885	650
	10,000	88	920	895	735	505
	12,000	87	890	800	590	365
7000	S.L.	89	1160	1145	1125	1105
	2000	89	1145	1125	1105	1085
	4000	88	1125	1100	1080	1045
	6000	88	1100	1075	1050	905
	8000	87	1075	1050	1010	760
	10,000	87	1045	1020	855	615
	12,000	86	1015	920	705	465

Figure 5-9. Rate-of-Climb - Takeoff Flap Setting

(WITHOUT CARGO POD)

## MAXIMUM RATE OF CLIMB

CONDITIONS:  
1900 RPM  
Inertial Separator - Normal

FLAPS UP

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_p$  of 101.6%.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM				
			-40°C	-20°C	0°C	20°C	40°C
8000	S.L.	106	1090	1070	1055	1035	975
	4000	105	1050	1035	1015	995	725
	8000	104	1015	990	970	755	460
	12,000	101	960	935	720	465	185
	16,000	97	810	630	420	180	—
	20,000	93	505	335	130	—	—
	24,000	89	225	60	—	—	—
	28,000	85	—	—	—	—	—
7500	S.L.	106	1200	1185	1165	1150	1085
	4000	104	1165	1150	1130	1110	825
	8000	103	1130	1110	1085	865	550
	12,000	100	1080	1055	825	560	265
	16,000	96	920	735	515	265	—
	20,000	92	605	430	215	—	—
	24,000	87	320	145	—	—	—
	28,000	83	45	—	—	—	—
7000	S.L.	105	1325	1310	1295	1280	1210
	4000	103	1290	1275	1260	1240	940
	8000	102	1255	1240	1215	980	650
	12,000	99	1210	1185	945	665	355
	16,000	95	1045	850	620	360	60
	20,000	90	720	535	310	60	—
	24,000	86	420	240	25	—	—
	28,000	81	140	—	—	—	—

Figure 5-10. Maximum Rate-of-Climb - Flaps Up

(WITHOUT CARGO POD)

**CRUISE CLIMB**

**FLAPS UP - 120 KIAS**

CONDITIONS:  
1900 RPM  
Inertial Separator - Normal

- NOTES:
1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_g$  of 101.6%.
  2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
  3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	RATE OF CLIMB - FPM			
		-20°C	0°C	20°C	40°C
8000	S.L.	1030	1000	980	725
	2000	1000	975	955	590
	4000	975	950	840	450
	6000	950	920	685	315
	8000	920	845	525	160
	10,000	885	670	355	5
	12,000	780	500	190	—
7500	S.L.	1135	1105	1085	815
	2000	1105	1080	1060	675
	4000	1080	1055	940	525
	6000	1055	1025	775	380
	8000	1025	950	605	220
	10,000	985	760	425	55
	12,000	875	580	255	—
7000	S.L.	1255	1225	1200	915
	2000	1225	1200	1175	765
	4000	1200	1175	1050	610
	6000	1170	1140	875	455
	8000	1140	1060	695	280
	10,000	1105	860	505	105
	12,000	985	670	320	—

Figure 5-11. Cruise Climb - Flaps Up - 120 KIAS

(WITHOUT CARGO POD)

**RATE OF CLIMB - BALKED LANDING**

**FLAPS 30°**

**CONDITIONS:**

Takeoff Power

1900 RPM

Inertial Separator - Normal

**NOTES:**

1. Do not exceed torque limit for takeoff per ENGINE TORQUE FOR TAKEOFF chart. When ITT exceeds 765°C, this power setting is time limited to 5 minutes.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20°C	0°C	20°C	40°C
7800	S.L.	83	850	830	810	785
	2000	83	830	805	785	760
	4000	83	805	780	755	720
	6000	82	780	755	725	595
	8000	82	750	720	680	470
	10,000	82	720	690	545	335
	12,000	81	685	600	410	205
7300	S.L.	83	960	940	920	895
	2000	82	940	915	895	870
	4000	82	915	890	865	830
	6000	81	890	865	835	700
	8000	81	860	830	790	565
	10,000	81	830	800	650	430
	12,000	80	795	705	510	295
6800	S.L.	82	1080	1060	1040	1020
	2000	81	1060	1040	1015	990
	4000	81	1035	1015	990	950
	6000	81	1010	985	960	815
	8000	80	985	955	915	680
	10,000	80	955	925	765	535
	12,000	79	920	825	620	395

Figure 5-12. Rate-of-Climb - Balked Landing

(WITHOUT CARGO POD)

## TIME, FUEL, AND DISTANCE TO CLIMB

### MAXIMUM RATE OF CLIMB

CONDITIONS:

Flaps Up  
1900 RPM  
Inertial Separator - Normal

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_g$  of 101.6%.
2. Add 35 pounds of fuel for engine start, taxi, and takeoff allowance.
3. Distances shown are based on zero wind.
4. With inertial separator set in BYPASS or cabin heat on, increase time, fuel, and distance numbers by 1% for each 1000 feet of climb above 10,000 feet for each condition.
5. Where time, fuel, and distance values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
			CLIMB FROM SEA LEVEL								
			TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM
8000	S.L.	106	0	0	0	0	0	0	0	0	0
	4000	105	4	25	7	4	26	7	4	27	7
	8000	104	8	51	14	8	52	14	9	56	16
	12,000	101	12	77	21	12	80	23	15	89	29
	16,000	97	16	104	30	18	111	34	23	130	46
	20,000	93	22	137	42	26	152	51	38	193	78
	24,000	89	33	184	63	42	217	84	151	599	326
	28,000	85	151	599	326	—	—	—	—	—	—
7500	S.L.	106	0	0	0	0	0	0	0	0	0
	4000	104	3	23	6	3	23	6	4	24	7
	8000	103	7	46	12	7	47	13	8	50	15
	12,000	100	11	69	19	11	71	20	13	79	25
	16,000	96	15	93	27	16	99	30	20	113	39
	20,000	92	20	122	37	23	132	44	31	160	62
	24,000	87	28	159	53	34	180	68	57	257	120
	28,000	83	49	235	95	66	293	134	—	—	—
7000	S.L.	105	0	0	0	0	0	0	0	0	0
	4000	103	3	21	5	3	21	5	3	22	6
	8000	102	6	41	11	6	42	11	7	45	13
	12,000	99	10	62	17	10	64	18	11	69	22
	16,000	95	13	84	24	14	88	26	17	98	34
	20,000	90	18	108	32	20	116	38	26	135	52
	24,000	86	24	139	45	29	153	56	42	193	85
	28,000	81	38	189	72	46	215	92	—	—	—

Figure 5-13. Time, Fuel, And Distance To Climb (Sheet 1 of 2)

(WITHOUT CARGO POD)

**TIME, FUEL, AND DISTANCE TO CLIMB**

CONDITIONS:

Flaps Up  
1900 RPM

Inertial Separator - Normal

**CRUISE CLIMB - 120 KIAS**

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_g$  of 101.6%.
2. Add 35 pounds of fuel for engine start, taxi, and takeoff allowance.
3. Distances shown are based on zero wind.
4. With inertial separator set in BYPASS or cabin heat on, increase time, fuel, and distance numbers by 1% for each 1000 feet of climb above 10,000 feet for each condition.

WEIGHT LBS	PRESS ALT FT	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
		CLIMB FROM SEA LEVEL								
		TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM
8000	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	13	4	2	14	4	2	16	5
	4000	4	27	8	4	28	8	5	33	11
	6000	6	40	12	6	42	13	8	51	17
	8000	8	54	17	8	56	18	12	70	25
	10,000	10	68	21	11	71	23	16	92	35
	12,000	13	82	26	14	88	30	21	119	48
7500	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	12	3	2	13	4	2	14	5
	4000	4	24	7	4	25	8	5	29	10
	6000	6	36	11	6	38	12	7	45	15
	8000	7	48	15	8	50	16	10	62	22
	10,000	9	61	19	10	64	21	14	81	31
	12,000	11	74	24	12	79	27	18	104	41
7000	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	11	3	2	11	3	2	13	4
	4000	3	22	6	3	23	7	4	26	9
	6000	5	33	10	5	34	11	6	40	14
	8000	7	44	14	7	45	14	9	55	20
	10,000	8	55	17	9	57	19	12	72	27
	12,000	10	66	21	11	71	24	16	91	36

Figure 5-13. Time, Fuel, And Distance To Climb (Sheet 2 of 2)



**(WITHOUT CARGO POD)**

**CRUISE PERFORMANCE**

**NOTES**

The following general information is applicable to all Cruise Performance Charts contained in Figure 5-14, Sheet 2 through Sheet 16, in this section.

1. The highest torque shown for each temperature and RPM corresponds to maximum allowable cruise power. Do not exceed this torque, 740°C ITT, or 101.6% Ng, whichever occurs first.
2. The lowest torque shown for each temperature and RPM corresponds to the recommended torque setting for best range in zero wind conditions.
3. With the inertial separator in BYPASS and power set below the torque limit (1658 foot-pounds), decrease the maximum cruise torque by 100 foot-pounds. Do not exceed 740°C ITT. Fuel flow for a given torque setting will be 5 to 10 pph higher.
4. With the cabin heat on and power set below the torque limit (1658 foot-pounds), decrease maximum cruise torque by 50 foot-pounds. Do not exceed 740°C ITT. Fuel flow for a given torque setting will be 5 to 10 pph higher.

Figure 5-14. Cruise Performance (Sheet 1 of 16)

(WITHOUT CARGO POD)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 2000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
45	1272	348	160	1361	348	159	1454	348	158
40	1368	361	164	1462	361	163	1661	361	162
	1350	358	163	1395	351	160	1470	349	158
30	1552	387	171	1667	387	170	1764	387	168
	1400	363	164	1500	363	164	1600	363	162
	1335	354	161	1390	348	159	1450	343	155
20	1658	401	174	1800	406	174	1963	413	174
	1500	376	167	1600	375	166	1800	388	168
	1320	348	158	1400	346	157	1600	360	160
				1385	344	157	1435	338	153
10	1658	398	172	1800	402	173	1970	410	172
	1500	373	165	1600	371	165	1800	384	166
	1330	347	157	1400	343	156	1600	356	159
				1365	338	154	1415	332	151
0	1658	395	170	1800	399	171	1970	405	170
	1500	370	163	1600	368	163	1800	381	165
	1335	345	155	1400	340	154	1600	353	157
				1355	333	152	1400	326	149
-10	1658	392	168	1800	395	169	1970	402	169
	1500	367	161	1600	365	161	1800	377	163
	1325	341	153	1400	336	152	1600	349	155
				1340	328	149	1400	322	147
-20	1658	389	166	1800	392	167	1970	398	167
	1500	365	159	1600	362	159	1800	374	161
	1330	339	152	1400	333	150	1600	346	154
				1320	322	146	1400	319	145
						1385	317	145	
-30	1658	387	164	1800	388	165	1970	394	165
	1500	362	157	1600	359	157	1800	370	159
	1330	337	150	1400	330	148	1600	342	152
				1320	319	145	1400	316	143
						1380	313	143	
-40	1658	384	162	1800	385	162	1970	390	163
	1500	360	155	1600	356	155	1800	366	157
	1315	332	146	1400	327	146	1600	338	150
				1335	318	143	1400	312	142
						1355	307	140	
-50	1658	382	159	1800	382	160	1970	387	160
	1500	358	153	1600	353	153	1800	362	155
	1326	332	146	1400	325	144	1600	335	148
				1330	315	141	1400	309	140
						1345	302	137	
-54	1658	381	158	1800	381	159	1970	385	159
	1500	357	152	1600	352	152	1800	361	154
	1330	331	144	1400	323	144	1600	334	147
				1325	313	140	1400	307	139
						1350	301	137	

Figure 5-14. Cruise Performance (Sheet 2 of 16)

(WITHOUT CARGO POD)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 4000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
40	1268	337	162	1356	337	162	1447	337	160
				1340	334	161	1415	332	158
30	1440	361	170	1537	361	169	1636	361	167
	1300	339	162	1400	340	162	1500	341	161
	1280	336	161	1330	330	159	1400	327	156
20	1608	365	176	1714	385	175	1821	385	172
	1500	367	171	1600	367	170	1700	367	168
	1300	336	161	1400	337	161	1500	337	159
	1265	331	159	1330	326	157	1390	323	154
10	1658	390	176	1800	395	176	1970	404	176
	1500	365	169	1600	364	168	1800	378	170
	1300	334	159	1400	334	159	1600	349	162
	1270	329	157	1320	323	155	1400	321	153
							1360	318	152
0	1658	388	174	1800	392	174	1970	400	174
	1500	362	167	1600	361	166	1800	374	168
	1300	331	157	1400	331	157	1600	345	160
	1270	326	156	1310	318	153	1400	318	151
							1355	311	149
-10	1658	385	172	1800	389	173	1970	396	172
	1500	360	165	1600	358	165	1800	371	166
	1300	329	155	1400	328	156	1600	342	159
	1265	323	153	1295	313	150	1400	314	150
						1335	306	147	
-20	1658	382	170	1800	385	170	1970	392	170
	1500	357	163	1600	355	163	1800	367	164
	1300	326	154	1400	325	154	1600	339	157
	1260	321	152	1275	307	148	1400	311	148
							1330	301	145
-30	1658	380	168	1800	382	168	1970	389	168
	1500	355	161	1600	352	161	1800	364	163
	1300	324	152	1400	323	152	1600	335	155
	1265	319	150	1275	305	146	1400	307	147
							1325	298	143
-40	1658	377	166	1800	379	166	1970	386	166
	1500	352	159	1600	349	159	1800	360	161
	1300	322	150	1400	320	150	1600	332	153
	1245	314	146	1280	302	144	1400	304	145
							1310	293	141
-50	1658	376	163	1800	377	164	1970	383	164
	1500	350	157	1600	346	156	1800	357	158
	1300	320	147	1400	317	148	1600	328	151
	1250	312	144	1265	298	141	1400	301	143
							1295	287	138
-54	1658	375	162	1800	376	163	1970	382	163
	1500	349	156	1600	345	155	1800	355	158
	1300	319	146	1400	316	147	1600	327	150
	1255	312	144	1265	297	141	1295	286	137

Figure 5-14. Cruise Performance (Sheet 3 of 16)

(WITHOUT CARGO POD)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 6000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
35	1255	326	164	1341	325	163	1429	325	161
	1240	322	163	1290	317	160	1365	315	158
30	1334	336	168	1423	336	167	1516	336	165
	1240	321	163	1300	317	160	1400	319	159
20	1490	358	174	1588	358	173	1687	359	171
	1300	328	164	1400	329	164	1500	330	163
10	1225	317	160	1285	312	158	1340	308	155
	1640	380	180	1746	380	178	1851	380	175
0	1500	358	173	1600	357	172	1700	357	170
	1300	326	163	1400	326	162	1500	327	161
-10	1210	312	157	1276	308	156	1325	303	153
	1658	381	178	1800	387	178	1970	398	178
-20	1500	355	171	1600	354	170	1800	369	172
	1300	323	161	1400	324	161	1600	339	164
-30	1215	310	156	1260	303	154	1400	310	155
	1658	379	176	1800	385	176	1970	394	176
-40	1500	353	169	1600	351	168	1800	365	170
	1300	321	159	1400	321	159	1600	336	162
-50	1215	308	154	1240	297	151	1400	307	153
	1658	377	174	1800	382	174	1970	391	174
-60	1500	350	167	1600	348	166	1800	362	168
	1300	318	157	1400	318	157	1600	333	160
-70	1205	304	152	1230	293	148	1400	304	151
	1658	376	172	1800	379	172	1970	387	172
-80	1500	348	165	1600	346	164	1800	359	166
	1300	316	155	1400	316	155	1600	329	158
-90	1205	302	150	1215	289	146	1400	301	150
	1658	374	170	1800	377	170	1970	385	170
-100	1500	345	163	1600	343	162	1800	355	164
	1300	314	153	1400	313	153	1600	326	157
-110	1190	298	147	1220	287	144	1400	298	148
	1658	372	167	1800	375	168	1970	382	168
-120	1500	343	161	1600	340	160	1800	352	162
	1300	312	151	1400	310	151	1600	323	155
-130	1190	296	145	1215	283	142	1400	294	146
	1658	372	166	1800	374	167	1970	381	167
-140	1500	342	160	1600	338	159	1800	351	161
	1300	312	150	1400	309	150	1600	321	154
-150	1195	296	144	1210	282	141	1400	293	145
							1240	272	138

Figure 5-14. Cruise Performance (Sheet 4 of 16)

(WITHOUT CARGO POD)

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 8000 FEET**

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

**NOTE**  
**DO NOT EXCEED MAXIMUM CRUISE TORQUE OR 740 DEG C ITT**

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
30	1216	310	165	1298	310	164	1383	310	161
	1195	307	163	1240	302	160	1315	300	157
20	1365	332	172	1454	332	171	1546	332	168
	1200	305	162	1300	308	162	1400	310	161
	1185	303	161	1235	298	158	1300	295	155
10	1505	352	177	1602	352	176	1699	352	173
	1300	319	166	1400	321	166	1500	321	164
	1170	298	158	1235	295	157	1295	291	154
0	1649	377	182	1753	377	180	1857	377	178
	1500	350	175	1600	350	174	1700	349	171
	1300	317	165	1400	318	164	1500	318	163
	1155	294	156	1220	290	154	1300	290	153
-10							1275	286	151
	1658	378	180	1800	384	180	1970	395	180
	1500	347	173	1600	347	172	1800	363	174
	1300	315	163	1400	315	163	1600	331	165
	1165	293	155	1205	286	152	1400	301	156
-20							1250	281	149
	1658	376	178	1800	382	178	1970	392	178
	1500	345	171	1600	343	170	1800	360	172
	1300	312	161	1400	313	161	1600	328	164
	1155	290	152	1200	283	150	1400	298	155
-30							1245	276	147
	1658	374	176	1800	379	176	1970	388	176
	1500	343	169	1600	341	168	1800	357	170
	1300	310	159	1400	310	159	1600	325	162
	1155	288	151	1200	281	148	1400	295	153
-40							1235	272	144
	1658	372	174	1800	376	174	1970	384	173
	1500	342	167	1600	339	166	1800	354	168
	1300	308	157	1400	307	157	1600	321	160
	1155	286	149	1200	278	146	1400	292	151
-50							1230	268	143
	1658	371	171	1800	374	172	1970	381	171
	1500	340	165	1600	337	164	1800	352	166
	1300	306	155	1400	305	155	1600	318	158
	1145	282	146	1200	276	144	1400	289	149
-54							1210	263	140
	1658	370	170	1800	373	171	1970	380	170
	1500	340	164	1600	336	163	1800	351	166
	1300	305	154	1400	304	154	1600	317	157
	1150	283	145	1200	275	143	1400	288	148
			1160	268	141	1205	261	139	

Figure 5-14. Cruise Performance (Sheet 5 of 16)

(WITHOUT CARGO POD)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 10000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
25	1177	296	165	1255	296	163	1336	296	161
	1145	292	162	1200	288	160	1275	287	157
20	1246	307	168	1329	307	167	1413	307	164
	1150	291	162	1200	287	159	1300	289	158
10	1377	326	175	1466	326	173	1556	326	170
	1200	297	164	1300	300	164	1400	302	162
0	1135	286	159	1185	282	157	1255	280	154
	1511	349	180	1607	349	178	1703	349	175
-10	1400	328	174	1500	329	173	1500	314	166
	1200	295	162	1300	297	162	1300	284	155
-20	1125	283	157	1175	278	155	1245	276	152
	1644	373	184	1747	373	182	1849	373	179
-30	1500	345	177	1600	345	176	1700	345	173
	1300	309	166	1400	310	166	1500	311	164
-40	1115	279	155	1200	280	155	1300	282	154
	1658	375	183	1800	381	182	1970	392	182
-50	1500	343	175	1600	343	174	1800	351	175
	1300	307	165	1400	308	164	1600	323	167
-60	1120	278	154	1200	277	153	1400	294	158
	1658	373	180	1800	379	180	1970	389	180
-70	1500	342	173	1600	340	172	1800	357	173
	1300	304	163	1400	305	162	1600	321	165
-80	1120	276	152	1200	275	151	1400	291	156
	1658	371	178	1800	376	178	1970	385	177
-90	1500	340	171	1600	338	170	1800	354	171
	1300	302	161	1400	303	160	1600	319	163
-100	1115	274	150	1200	273	149	1400	288	154
	1658	369	176	1800	373	176	1970	381	175
-110	1500	339	169	1600	336	168	1800	351	169
	1300	301	158	1400	300	158	1600	316	161
-120	1105	270	147	1200	270	147	1400	285	152
	1658	368	175	1800	372	175	1970	380	174
-130	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-140	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-150	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-160	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-170	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-180	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-190	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-200	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-210	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-220	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-230	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-240	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-250	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-260	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-270	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-280	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-290	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-300	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-310	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-320	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-330	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-340	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-350	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-360	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-370	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-380	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-390	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-400	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-410	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-420	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-430	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-440	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-450	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-460	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-470	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-480	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-490	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-500	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-510	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-520	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-530	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-540	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-550	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400	299	158	1600	315	161
-560	1115	271	146	1200	269	147	1400	284	152
	1658	368	175	1800	372	175	1970	380	174
-570	1500	338	168	1600	335	167	1800	350	168
	1300	300	158	1400					

(WITHOUT CARGO POD)

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 12000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

**NOTE**  
**DO NOT EXCEED MAXIMUM CRUISE**  
**TORQUE OR 740 DEG C ITT**

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
20	1126	281	164	1201	281	162	1278	281	159
				1165	276	160	1235	275	157
10	1250	300	171	1331	300	169	1413	300	166
	1120	278	162	1200	279	161	1300	282	160
0	1377	321	177	1465	321	175	1553	321	172
	1200	290	166	1300	292	166	1400	295	164
-10	1115	275	160	1165	269	156	1215	267	153
	1500	344	181	1595	344	180	1689	344	177
-20	1300	304	170	1400	306	170	1500	308	168
	1105	272	157	1200	274	158	1300	277	157
-30				1145	265	154	1200	262	151
	1620	366	185	1721	366	183	1821	365	180
-40	1500	342	179	1600	342	178	1700	343	175
	1300	302	168	1400	304	168	1500	305	166
-50	1095	269	155	1200	272	156	1300	274	156
				1140	262	152	1195	258	149
-60	1658	371	185	1800	378	184	1935	383	183
	1500	341	177	1600	340	176	1800	358	177
-70	1300	301	166	1400	302	166	1600	321	169
	1095	266	153	1200	270	154	1400	287	159
-80				1130	258	150	1200	257	148
	1658	369	182	1800	375	182	1970	387	182
-90	1500	339	175	1600	338	174	1800	355	175
	1300	300	164	1400	300	164	1600	319	167
-100	1100	266	152	1200	268	153	1400	284	158
	1085	263	151	1115	254	148	1200	254	146
-110							1160	248	144
	1658	367	180	1800	373	180	1970	384	179
-120	1500	337	173	1600	335	172	1800	351	173
	1300	299	162	1400	298	162	1600	316	165
-130	1100	264	150	1200	265	151	1400	281	156
	1090	262	149	1095	249	145	1200	252	145
-140							1155	245	142
	1658	366	179	1800	372	179	1970	382	178
-150	1500	336	172	1600	334	171	1800	350	172
	1300	298	161	1400	298	161	1600	315	164
-160	1100	264	149	1200	265	150	1400	280	155
	1075	259	147	1095	248	144	1200	251	144
							1155	244	142

Figure 5-14. Cruise Performance (Sheet 7 of 16)

(WITHOUT CARGO POD)

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 14000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

<b>NOTE</b> <b>DO NOT EXCEED MAXIMUM CRUISE TORQUE OR 740 DEG C ITT</b>
--

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
15	1070	266	162	1142	266	160	1214	266	157
10	1128	275	166	1202	275	164	1277	275	161
	1110	271	164	1155	267	161	1220	266	157
0	1246	293	172	1327	293	171	1407	293	168
	1105	269	163	1200	272	162	1300	276	161
				1150	264	159	1220	263	156
-10	1362	315	178	1449	315	176	1535	315	173
	1200	283	168	1300	286	168	1400	289	166
	1095	265	160	1140	260	157	1200	258	153
-20	1477	336	182	1570	336	180	1662	336	177
	1300	301	172	1400	304	172	1500	305	169
	1100	265	159	1200	267	159	1300	271	158
	1075	260	157	1130	256	155	1190	253	151
-30	1576	354	185	1672	353	183	1768	353	180
	1400	320	176	1500	321	175	1600	321	172
	1200	280	164	1300	282	164	1400	285	162
	1080	259	156	1110	251	152	1200	253	150
						1165	247	148	
-40	1658	370	187	1780	374	185	1880	373	182
	1500	337	179	1600	337	178	1700	337	175
	1300	299	168	1400	299	168	1500	300	166
	1100	261	155	1200	263	156	1300	265	155
	1065	255	153	1105	248	150	1150	242	146
-50	1658	369	184	1800	376	184	1970	388	183
	1500	336	177	1600	335	176	1800	353	177
	1300	297	166	1400	298	166	1500	316	168
	1100	260	153	1200	261	154	1400	280	159
	1060	253	151	1090	243	147	1200	248	148
						1140	239	144	
-54	1658	368	183	1800	375	183	1970	387	183
	1500	335	176	1600	334	175	1800	352	176
	1300	297	165	1400	297	165	1600	315	168
	1100	259	152	1200	260	153	1400	280	158
	1060	252	150	1080	241	146	1200	247	147
						1140	238	143	

Figure 5-14. Cruise Performance (Sheet 8 of 16)



(WITHOUT CARGO POD)

**CRUISE PERFORMANCE**

**PRESSURE ALTITUDE 16,000 FEET**

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
10	1008	250	158	1075	250	156	1144	250	153
0	1119	267	166	1192	267	165	1265	267	181
	1095	263	165	1145	259	161	1220	260	158
-10	1229	288	173	1308	288	171	1387	287	168
	1100	262	163	1200	266	164	1210	255	156
	1090	260	162	1135	255	159	—	—	—
-20	1342	309	178	1426	309	176	1510	308	173
	1200	280	169	1300	284	169	1400	287	167
	1075	256	160	1125	252	157	1195	251	154
-30	1432	325	181	1522	325	179	1611	325	176
	1300	299	174	1400	301	173	1500	303	171
	1100	259	160	1200	263	161	1300	266	159
	1060	252	157	1115	248	155	1175	245	151
-40	1527	343	184	1621	343	182	1713	343	179
	1400	317	177	1500	319	176	1600	320	174
	1200	278	165	1300	280	165	1400	282	163
	1050	248	154	1100	243	152	1200	247	152
	—	—	—	—	—	—	1155	240	149
-50	1627	364	187	1728	364	184	1827	363	182
	1500	336	180	1600	337	179	1700	337	176
	1300	296	170	1400	297	169	1500	298	167
	1100	257	156	1200	260	157	1300	263	156
	1030	244	151	1090	239	150	1135	234	146

Figure 5-14. Cruise Performance (Sheet 9 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 18,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
5	950	235	153	1013	235	151	1078	235	147
-5	1056	252	163	1125	252	161	1194	252	158
-15	1159	272	170	1233	272	168	1308	271	165
	1045	248	161	1105	247	158	1200	251	157
-25	—	—	—	—	—	—	1185	247	156
	1258	290	176	1338	290	174	1418	290	170
	1100	259	164	1200	263	164	1300	267	163
-35	1030	244	158	1090	242	156	1170	243	153
	1343	305	179	1428	305	177	1512	305	174
	1200	277	170	1300	281	170	1400	284	168
-45	1010	240	155	1100	242	155	1200	247	155
	—	—	—	1080	238	154	1150	237	151
	1433	324	182	1521	324	180	1609	323	177
	1300	295	175	1400	298	174	1500	300	171
-55	1100	257	161	1200	260	161	1300	263	160
	1000	236	152	1060	233	151	1130	232	148
	1513	340	184	1606	339	182	1698	338	179
	1400	316	178	1500	317	177	1500	297	169
	1200	275	166	1300	277	166	1300	261	158
	1000	236	151	1100	239	152	1110	227	146
	980	232	149	1045	229	148	—	—	—

Figure 5-14. Cruise Performance (Sheet 10 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 20,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
0	883	219	145	941	219	142	999	219	134
-10	984	236	158	1048	236	156	1113	236	151
-20	1081 1005	254 239	166 159	1151 1060	254 237	164 156	1221 1140	254 238	160 153
-30	1169 1000 990	271 237 235	172 157 156	1243 1100 1035	270 243 230	170 159 152	1318 1200 1120	270 248 233	166 157 150
-40	1248 1100 970	285 256 230	176 165 153	1328 1200 1035	285 260 228	174 165 152	1407 1300 1100	285 264 228	170 163 148
-50	1334 1200 1000 965	303 274 235 228	179 171 154 151	1417 1300 1100 1020	303 278 239 224	177 170 156 149	1500 1300 1100 1090	303 262 226 223	174 162 147 146
-60	1348 1200 1000 955	305 273 234 225	178 169 153 149	1435 1300 1100 995	305 276 238 218	176 168 154 146	1521 1400 1200 1060	304 278 242 217	173 166 154 143

Figure 5-14. Cruise Performance (Sheet 11 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 22,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-15	923	222	151	984	222	148	1044	222	142
-25	1016	240	162	1082	240	159	1148	239	155
-35	1094	254	168	1164	254	166	1235	254	162
	1000	236	159	1060	233	156	1150	237	154
-45	1169	269	173	1244	269	170	1319	268	167
	985	231	157	1100	240	159	1200	245	158
-55				1040	228	153	1135	233	152
	1233	282	176	1310	281	173	1389	281	170
	1100	252	166	1200	257	166	1200	242	157
-65	980	229	155	1030	224	151	1100	224	148
	1208	275	172	1288	275	170	1371	274	167
	1100	252	164	1100	236	156	1200	241	155
	970	226	152	1010	220	148	1085	219	146

Figure 5-14. Cruise Performance (Sheet 12 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 24,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-30	946	224	155	1007	224	151	1068	224	145
-40	1017	237	163	1082	237	160	1148	237	155
-50	1087 1005	251 234	168 160	1157 1070	251 232	166 158	1228 1155	251 236	162 155
-60	1095 990	252 229	167 157	1167 1050	252 226	165 155	1241 1145	251 231	162 153
-70	1072 980	246 226	164 155	1147 1030	246 222	162 152	1223 1110	245 223	159 149

Figure 5-14. Cruise Performance (Sheet 13 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 28,000 FEET

CONDITIONS:  
7500 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-35	881	209	154	938	209	150	996	209	144
-45	948	221	162	1009	221	159	1072	221	154
-55	997 940	231 219	166 160	1061 990	231 216	163 156	1126 1080	231 220	159 155
-65	977 920	228 214	162 158	1043 975	228 211	161 154	1112 1080	225 218	157 154
-75	954 945	220 216	159 158	1024 995	220 211	157 154	1092 —	220 —	154 —

Figure 5-14. Cruise Performance (Sheet 14 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 28,000 FEET

CONDITIONS:  
7000 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-40	824	195	154	877	195	150	932	195	144
-50	885	207	162	943	207	159	1002	207	154
	875	205	160	935	206	158			
-60	890	208	161	950	207	159	1010	207	155
	—	—	—	920	201	155			
-70	871	203	158	933	202	156	995	202	152
-80	850	197	154	914	197	153	976	197	149

Figure 5-14. Cruise Performance (Sheet 15 of 16)

(WITHOUT CARGO POD)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 30,000 FEET

CONDITIONS:  
6500 Pounds  
Inertial Separator - Normal

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-45	764	181	154	814	181	150	865	181	144
-55	804	189	159	856	189	156	910	188	152
-65	787	185	156	842	184	154	897	184	150
-75	769	180	152	827	180	151	881	180	147

Figure 5-14. Cruise Performance (Sheet 16 of 16)



(WITHOUT CARGO POD)  
CRUISE MAXIMUM TORQUE

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG. C	PRESSURE ALTITUDE 1000 FEET			PRESSURE ALTITUDE 2000 FEET			PRESSURE ALTITUDE 3000 FEET			PRESSURE ALTITUDE 4000 FEET			PRESSURE ALTITUDE 5000 FEET		
	WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS		
	PROPELLER SPEED - RPM	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
50	1223	1311	1400	--	--	--	--	--	--	--	--	--	--	--	
45	1321	1413	1510	1272	1361	1454	1226	1312	1401	--	--	--	--	--	
40	1420	1518	1620	1368	1462	1561	1318	1409	1504	1268	1356	1447	--	--	
35	1515	1619	1726	1460	1560	1663	1407	1503	1602	1354	1447	1542	1305	1485	
30	1611	1719	1831	1552	1657	1764	1496	1597	1700	1440	1537	1636	1387	1480	
25	1621	1778	1935	1605	1729	1864	1565	1677	1796	1524	1626	1729	1468	1566	
20	1658	1800	1973	1658	1800	1963	1633	1757	1892	1608	1714	1821	1549	1651	
15	1658	1800	1967	1658	1800	1967	1646	1779	1931	1633	1757	1896	1599	1712	
10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1649	1773	
5	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1654	1786	
0	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-5	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-15	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-20	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-25	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-30	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-35	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-40	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-45	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-50	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	
-54	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	

26107-01E

Figure 5-14A. Cruise Maximum Torque (Sheet 1 of 6)

(WITHOUT CARGO POD)  
CRUISE MAXIMUM TORQUE

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE 6000 FEET			PRESSURE ALTITUDE 7000 FEET			PRESSURE ALTITUDE 8000 FEET			PRESSURE ALTITUDE 9000 FEET			PRESSURE ALTITUDE 10,000 FEET		
	WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS		
	PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM		
35	1255	1341	1429	1275	1361	1449	1216	1298	1383	1234	1316	1400	1177	1255	1336
30	1334	1423	1515	1351	1441	1533	1291	1376	1465	1306	1392	1480	1246	1329	1413
25	1412	1506	1601	1428	1521	1617	1365	1454	1546	1373	1463	1554	1312	1398	1485
20	1490	1588	1687	1500	1597	1696	1435	1528	1623	1441	1534	1628	1444	1537	1630
15	1565	1667	1769	1573	1674	1775	1505	1602	1699	1511	1607	1704	1511	1607	1703
10	1640	1745	1851	1613	1725	1844	1577	1678	1778	1580	1680	1780	1578	1677	1776
5	1649	1773	1911	1654	1777	1914	1649	1753	1857	1616	1727	1845	1644	1747	1849
0	1658	1800	1970	1656	1788	1942	1654	1777	1914	1651	1774	1910	1651	1774	1910
-5	1658	1800	1970	1658	1800	1970	1658	1800	1970	1655	1787	1940	1651	1774	1910
-10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-15	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-20	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-25	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-30	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-35	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-40	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-45	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-50	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-54	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970

Figure 5-14A. Cruise Maximum Torque (Sheet 2 of 6)

(WITHOUT CARGO POD)  
(CARGO POD INSTALLED)

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE					
	11,000 FEET			12,000 FEET			13,000 FEET			14,000 FEET			15,000 FEET		
	WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
20	1186	1265	1346	1126	1201	1278	--	--	--	--	--	--	--	--	--
15	1250	1332	1415	1188	1266	1346	1129	1204	1280	1070	1142	1214	--	--	--
10	1314	1399	1485	1250	1331	1413	1189	1267	1345	1128	1202	1277	1068	1139	1211
5	1379	1467	1556	1314	1398	1483	1250	1331	1413	1187	1265	1342	1125	1199	1273
0	1444	1536	1628	1377	1465	1553	1312	1396	1480	1246	1327	1407	1183	1260	1336
-5	1508	1604	1699	1439	1530	1621	1371	1459	1546	1304	1388	1471	1239	1319	1399
-10	1572	1671	1769	1500	1595	1689	1431	1522	1612	1362	1449	1535	1296	1379	1461
-15	1606	1716	1832	1560	1658	1755	1490	1584	1677	1420	1510	1599	1353	1438	1524
-20	1639	1761	1896	1620	1721	1821	1549	1646	1742	1477	1570	1662	1410	1498	1586
-25	1649	1780	1924	1639	1761	1878	1583	1691	1797	1526	1621	1715	1457	1548	1638
-30	1658	1800	1953	1658	1800	1935	1617	1736	1852	1575	1672	1768	1504	1597	1690
-35	1658	1800	1961	1658	1800	1953	1637	1763	1888	1617	1726	1824	1548	1649	1743
-40	1658	1800	1970	1658	1800	1970	1658	1790	1925	1658	1780	1880	1593	1701	1797
-45	1658	1800	1970	1658	1800	1970	1658	1795	1948	1658	1790	1925	1618	1732	1848
-50	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1643	1764	1899
-54	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	--	--	--

20.00.34

Figure 5-14A. Cruise Maximum Torque (Sheet 3 of 6)

(WITHOUT CARGO POD)  
CRUISE MAXIMUM TORQUE

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE 16,000 FEET			PRESSURE ALTITUDE 17,000 FEET			PRESSURE ALTITUDE 18,000 FEET			PRESSURE ALTITUDE 19,000 FEET			PRESSURE ALTITUDE 20,000 FEET		
	WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS		
	PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM		
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
10	1008	1075	1144	--	--	--	950	1013	1078	--	--	--	--	--	--
5	1064	1134	1205	1007	1073	1141	1003	1069	1136	--	--	--	883	941	999
0	1119	1192	1265	1061	1131	1201	1056	1125	1194	943	1005	1068	934	995	1056
-5	1174	1250	1326	1115	1188	1260	1108	1179	1251	995	1060	1125	984	1048	1113
-10	1229	1308	1387	1168	1244	1319	1159	1233	1308	1046	1114	1182	1033	1100	1167
-15	1286	1367	1449	1222	1300	1378	1209	1286	1363	1096	1166	1238	1081	1151	1221
-20	1342	1426	1510	1275	1356	1437	1258	1338	1418	1145	1218	1292	1125	1199	1270
-25	1387	1474	1561	1323	1406	1489	1301	1383	1465	1192	1268	1344	1169	1243	1318
-30	1432	1522	1611	1366	1453	1538	1343	1428	1512	1235	1313	1392	1209	1287	1363
-35	1480	1572	1662	1411	1500	1587	1388	1475	1561	1276	1358	1437	1248	1328	1407
-40	1527	1621	1713	1458	1548	1637	1433	1521	1609	1318	1401	1484	1291	1373	1454
-45	1577	1675	1770	1505	1598	1690	1473	1564	1654	1362	1447	1531	1334	1417	1500
-50	1627	1728	1827	1550	1646	1740	1513	1606	1698	1404	1490	1577	1341	1426	1511
-55	--	--	--	--	--	--	--	--	--	1427	1516	1604	1348	1435	1521
-60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

28-107-201

Figure 5-14A. Cruise Maximum Torque (Sheet 4 of 6)

(WITHOUT CARGO POD)  
CRUISE MAXIMUM TORQUE

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	21,000 FEET			22,000 FEET			23,000 FEET			24,000 FEET			25,000 FEET		
	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE		
	WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
-15	978	1042	1106	923	984	1044	--	--	--	--	--	--	--	--	--
-20	1025	1092	1159	970	1033	1096	--	--	--	--	--	--	--	--	--
-25	1071	1140	1209	1016	1082	1148	--	--	--	--	--	--	--	--	--
-30	1112	1183	1255	1055	1123	1192	1001	1065	1130	946	1007	1068	931	991	1052
-35	1151	1226	1299	1094	1164	1235	1038	1104	1172	982	1045	1108	966	1028	1091
-40	1190	1266	1342	1132	1204	1277	1074	1143	1213	1017	1082	1148	1000	1064	1130
-45	1230	1308	1386	1169	1244	1319	1111	1182	1254	1052	1120	1188	1030	1096	1164
-50	1268	1347	1427	1201	1277	1354	1144	1217	1291	1087	1157	1228	1044	1112	1180
-55	1287	1368	1450	1233	1310	1389	1162	1236	1312	1091	1162	1235	1041	1110	1180
-60	1284	1367	1451	1221	1299	1380	1158	1233	1311	1095	1167	1241	1041	1110	1180
-65	--	--	--	1208	1288	1371	1146	1223	1302	1084	1157	1232	1030	1100	1172
-70	--	--	--	--	--	--	--	--	--	1072	1147	1223	1019	1090	1163

20 EX 5/F

Figure 5-14A. Cruise Maximum Torque (Sheet 5 of 6)

**(WITHOUT CARGO POD)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG. C	26,000 FEET			27,000 FEET			28,000 FEET			29,000 FEET			30,000 FEET		
	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE		
	WEIGHT = 7500 POUNDS			WEIGHT = 7250 POUNDS			WEIGHT = 7000 POUNDS			WEIGHT = 6750 POUNDS			WEIGHT = 6500 POUNDS		
	PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM		
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
-35	881	938	996	--	--	--	--	--	--	--	--	--	--	--	--
-40	915	974	1034	869	925	983	824	877	932	--	--	--	--	--	--
-45	948	1009	1072	901	960	1020	855	910	967	809	862	916	764	814	865
-50	973	1035	1099	929	989	1051	885	943	1002	835	889	945	784	835	888
-55	997	1061	1126	942	1004	1066	888	947	1006	846	901	958	804	856	910
-60	987	1052	1119	939	1001	1065	890	950	1010	843	900	957	796	849	904
-65	977	1043	1112	929	992	1057	881	942	1003	834	892	950	787	842	897
-70	966	1034	1102	918	983	1049	871	933	995	825	884	942	778	835	889
-75	954	1024	1092	907	974	1039	861	924	986	815	875	933	769	827	881
-80	--	--	--	--	--	--	850	914	976	--	--	--	--	--	--

Figure 5-14A. Cruise Maximum Torque (Sheet 6 of 6)

(WITHOUT CARGO POD)  
**FUEL AND TIME REQUIRED**  
MAXIMUM CRUISE POWER

CONDITIONS:  
8000 Pounds  
1900 RPM  
Inertial Separator - Normal  
Standard Temperature

NOTES:

1. Fuel required includes the fuel used for engine start, taxi, takeoff, maximum climb from sea level, descent to sea level and 45 minutes reserve. Time required includes the time during a maximum climb and descent.
2. With inertial separator in BYPASS or cabin heat on, increase time by 3% and fuel by 2%.

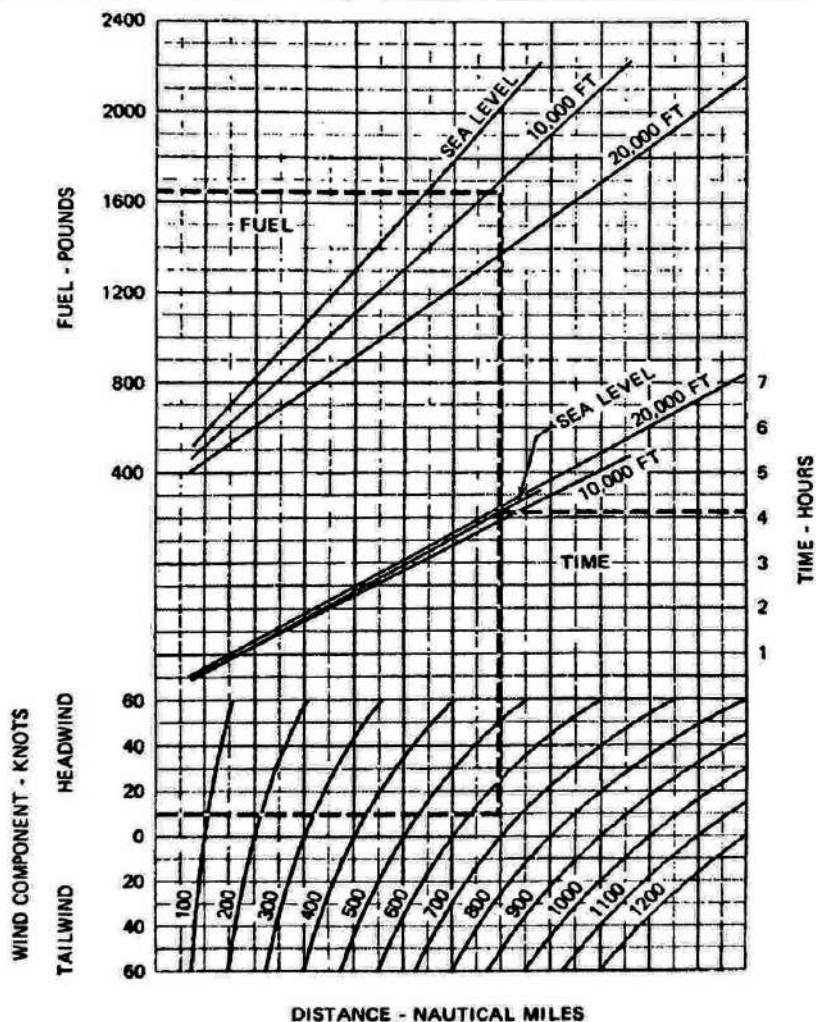


Figure 5-15. Fuel and Time Required - Maximum Cruise Power

(WITHOUT CARGO POD)  
**FUEL AND TIME REQUIRED**

**MAXIMUM RANGE POWER**

CONDITIONS:  
8000 Pounds  
1900 RPM  
Inertial Separator - Normal  
Standard Temperature

- NOTES:
1. Fuel required includes the fuel used for engine start, taxi, takeoff, maximum climb from sea level, descent to sea level and 45 minutes reserve. Time required includes the time during a maximum climb and descent.
  2. With inertial separator in BYPASS or cabin heat on, increase time by 3% and fuel by 2%.

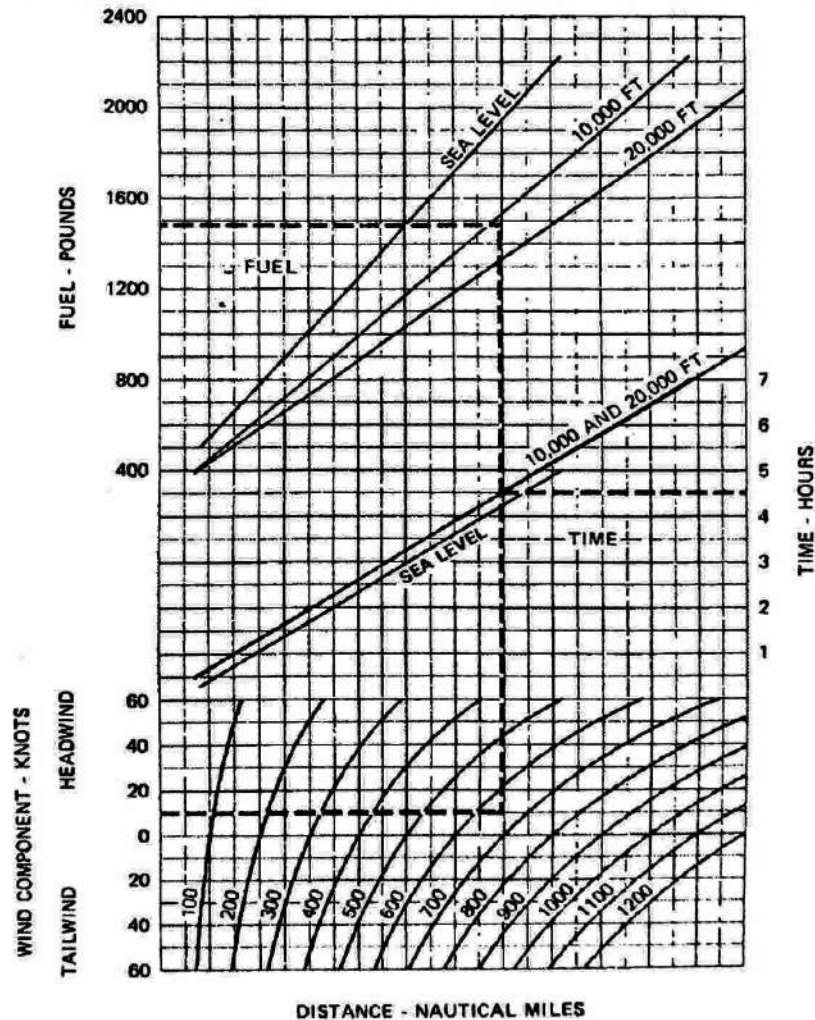


Figure 5-16. Fuel, and Time Required - Maximum Range Power



(WITHOUT CARGO POD)  
**RANGE PROFILE**  
45 MINUTES RESERVE  
2224 POUNDS USABLE FUEL

CONDITIONS:  
8000 Pounds  
1900 RPM  
Standard Temperature  
Zero Wind  
Inertial Separator - Normal

NOTES:  
1. This chart allows for the fuel used for engine start, taxi, takeoff, climb and descent. The distance during a maximum climb and the distance during descent are included.  
2. With the inertial separator in BYPASS or cabin heat on, decrease range by 2%.

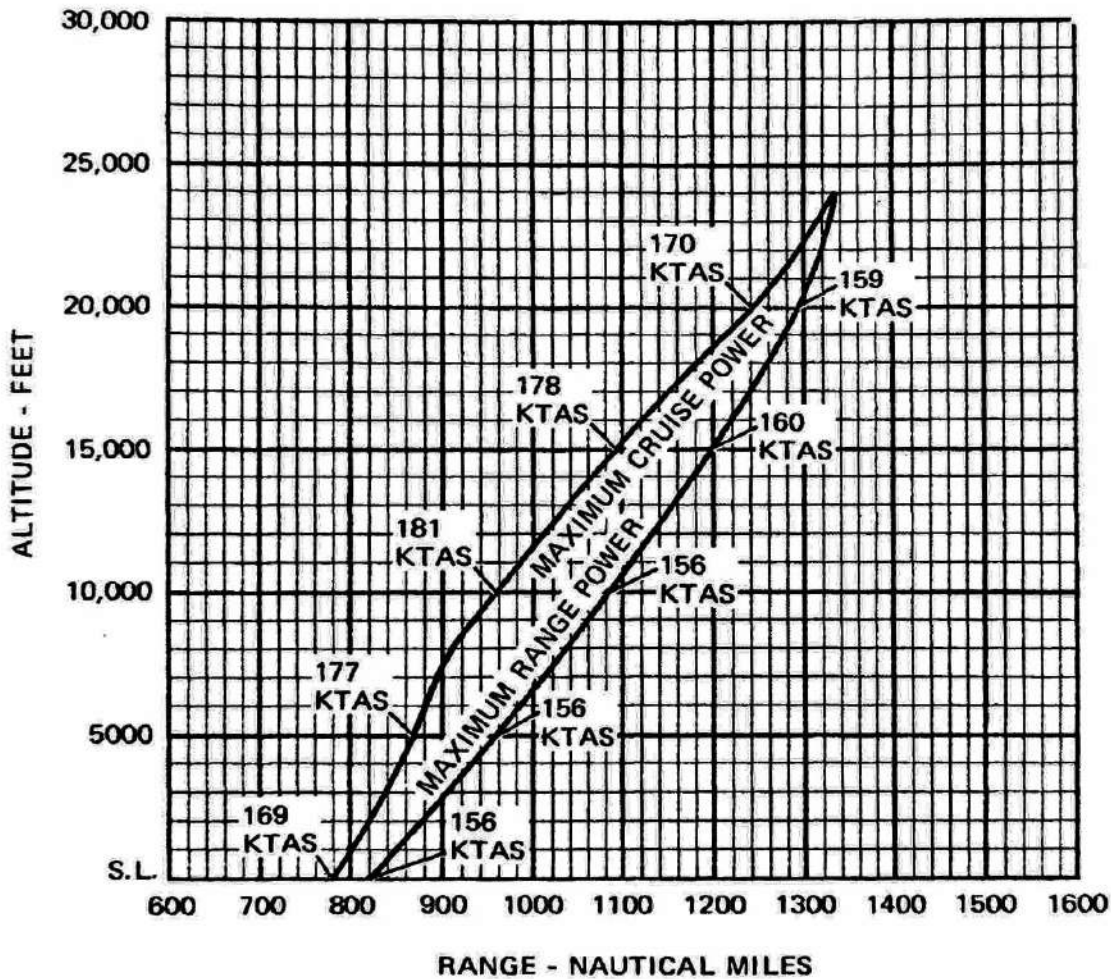


Figure 5-17. Range Profile

(WITHOUT CARGO POD)  
**ENDURANCE PROFILE**  
45 MINUTES RESERVE  
2224 POUNDS USABLE FUEL

CONDITIONS:  
8000 Pounds  
1900 RPM  
Standard Temperature  
Inertial Separator - Normal

NOTES:

1. This chart allows for the fuel used for engine start, taxi, takeoff, climb and descent. The time during a maximum climb and the time during descent are included.
2. With the inertial separator in BYPASS or cabin heat on, decrease endurance by 2%.

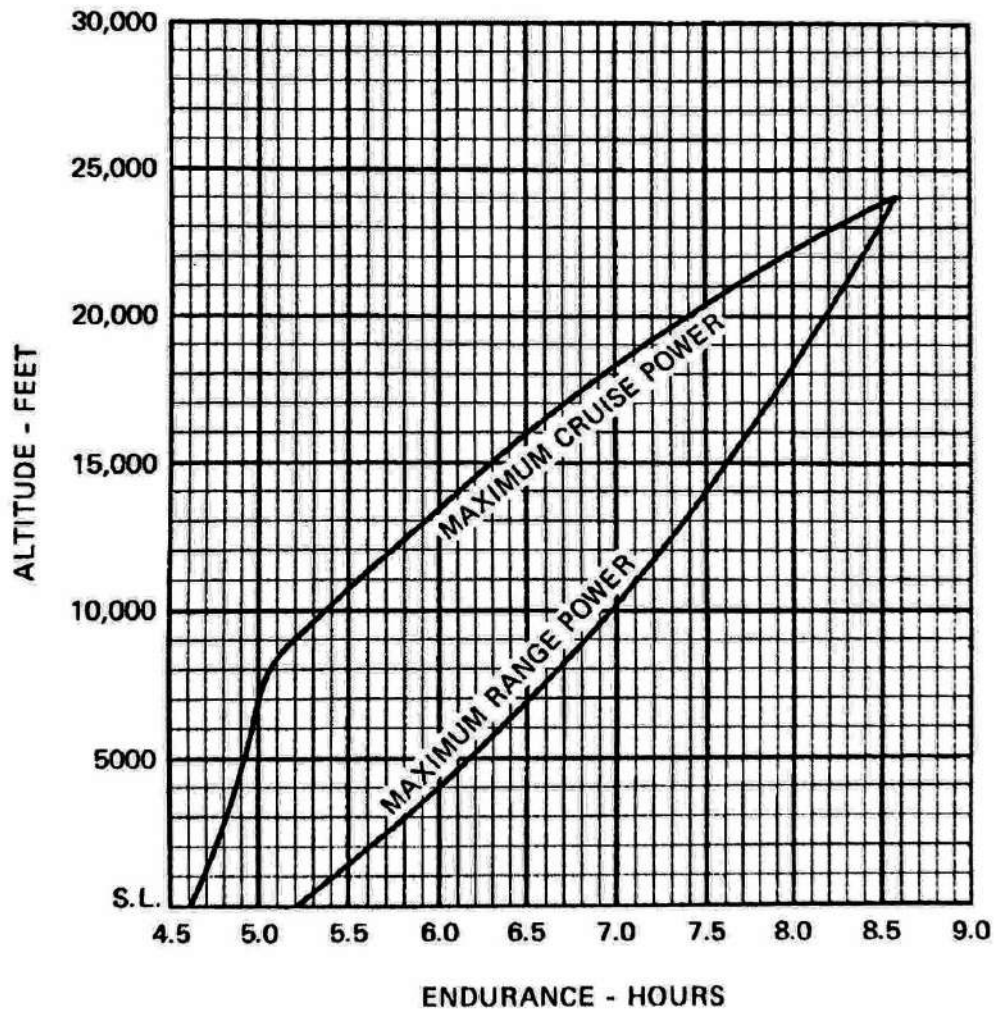


Figure 5-18. Endurance Profile

(WITHOUT CARGO POD)  
**TIME, FUEL, AND DISTANCE TO DESCEND**

**CONDITIONS:**

8000 Pounds  
Flaps Up  
140 KIAS Above 16,000  
Feet, 160 KIAS Below  
16,000 Feet  
Power Set for 800 FPM  
Rate of Descent  
1900 RPM

**NOTE:**

Distances shown are based  
on zero wind.

PRESS ALT FT	DESCENT TO SEA LEVEL		
	TIME MIN	FUEL LBS	DIST NM
28,000	35	143	109
24,000	30	124	91
20,000	25	107	75
16,000	20	90	59
12,000	15	68	43
8000	10	46	28
4000	5	24	14
S.L.	0	0	0

Figure 5-19. Time, Fuel, And Distance To Descend

(WITHOUT CARGO POD)

## LANDING DISTANCE MAXIMUM WEIGHT 7800 LBS SHORT FIELD

**CONDITIONS:**

Flaps 30°  
Power Lever - Idle after clearing obstacles, BETA range (lever against spring) after touchdown.  
Propeller Control Lever - MAX  
Maximum Braking  
Paved, Level, Dry Runway  
Zero Wind

**NOTES:**

1. Short field technique as specified in Section 4
2. Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
3. For operation on a dry, grass runway, increase distances by 40% of the "ground roll" figure.
4. If a landing with flaps up is necessary, increase the approach speed by 15 KIAS and allow for 40% longer distances.
5. Use of maximum reverse thrust after touchdown reduces ground roll by approximately 10%.
6. Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	SPEED AT 50 FT KIAS	PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
			GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
7800	78	S.L.	655	1525	680	1565	705	1605	725	1645	750	1685	775	1725
		1000	675	1565	705	1605	730	1645	755	1690	780	1730	805	1770
		2000	700	1605	730	1645	755	1690	780	1735	810	1775	835	1815
		3000	730	1645	755	1690	785	1735	810	1780	840	1820	865	1865
		4000	755	1690	785	1735	815	1780	840	1825	870	1870	900	1915
		5000	785	1735	815	1785	845	1830	875	1875	905	1925	935	1970
		6000	815	1785	845	1830	875	1880	910	1930	940	1975	970	2025
		7000	845	1835	880	1885	910	1935	945	1980	975	2030	1005	2080
		8000	880	1885	915	1935	945	1985	980	2040	1015	2090	1045	2140
		9000	915	1935	950	1990	985	2045	1020	2095	1055	2150	—	—
		10,000	950	1990	985	2045	1020	2100	1060	2155	1095	2210	—	—
		11,000	985	2050	1025	2105	1060	2165	1100	2220	1135	2275	—	—
12,000	1025	2110	1065	2170	1105	2225	1145	2285	1185	2340	—	—		

Figure 5-20. Landing Distance (Sheet 1 of 2)

(WITHOUT CARGO POD)

**LANDING DISTANCE**  
**7300 LBS AND 6800 LBS**  
**SHORT FIELD**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WEIGHT LBS	SPEED AT 50 FT KIAS	PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
			GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
7300	75	S.L.	610	1450	635	1490	660	1525	680	1565	705	1605	730	1640
		1000	635	1490	660	1530	685	1565	705	1605	730	1645	755	1685
		2000	660	1525	685	1570	710	1610	735	1650	760	1690	785	1730
		3000	685	1565	710	1610	735	1650	760	1690	785	1735	810	1775
		4000	710	1610	735	1650	760	1695	790	1735	815	1780	845	1820
		5000	735	1650	765	1695	790	1740	820	1785	845	1830	875	1870
		6000	765	1695	795	1745	820	1790	850	1835	880	1880	910	1925
		7000	795	1745	825	1790	855	1840	885	1885	915	1930	945	1975
		8000	825	1790	855	1840	885	1890	920	1935	950	1985	980	2030
		9000	855	1840	890	1890	920	1940	955	1990	985	2040	—	—
		10,000	890	1895	925	1945	960	2000	990	2050	1025	2100	—	—
		11,000	925	1950	960	2000	995	2055	1030	2110	1065	2160	—	—
12,000	960	2005	1000	2060	1035	2115	1070	2170	1110	2225	—	—		
6800	72	S.L.	570	1385	590	1420	610	1455	635	1490	655	1530	675	1565
		1000	590	1420	610	1455	635	1495	655	1530	680	1565	700	1605
		2000	610	1455	635	1495	660	1535	680	1570	705	1610	730	1645
		3000	635	1495	660	1535	685	1575	705	1610	730	1650	755	1690
		4000	660	1535	685	1575	710	1615	735	1655	760	1695	785	1735
		5000	685	1575	710	1615	735	1660	760	1700	785	1740	815	1780
		6000	710	1615	735	1660	765	1705	790	1745	815	1790	845	1830
		7000	735	1660	765	1705	795	1750	820	1795	850	1835	875	1880
		8000	765	1705	795	1750	825	1800	855	1845	880	1890	910	1935
		9000	795	1755	825	1800	855	1850	885	1895	915	1940	—	—
		10,000	825	1805	860	1850	890	1900	920	1950	955	1995	—	—
		11,000	860	1855	890	1905	925	1955	960	2005	990	2055	—	—
12,000	895	1905	930	1960	960	2010	995	2065	1030	2115	—	—		

Figure 5-20. Landing Distance (Sheet 2 of 2)

(CARGO POD INSTALLED)

**TAKEOFF DISTANCE  
MAXIMUM WEIGHT 8000 LBS  
SHORT FIELD**

**CONDITIONS:**

Flaps 20°  
1900 RPM  
Inertial Separator - Normal  
Cabin Heat - Off  
Torque Set per Figure 5-7  
Paved, Level, Dry Runway  
Zero Wind  
Cargo Pod Installed

**NOTES:**

- Short field technique as specified in Section 4.
- Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
- For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.
- With takeoff power set below the torque limit (1658 ft-lbs), increase distance (both ground roll and total distance) by 3% for inertial separator in BYPASS and 5% for cabin heat on.
- Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
8000	72	82	S.L.	1050	1960	1115	2070	1180	2180	1250	2300	1320	2420	1390	2545
			1000	1115	2065	1180	2180	1255	2305	1325	2430	1400	2560	1480	2695
			2000	1180	2180	1255	2305	1330	2435	1410	2570	1490	2710	1570	2855
			3000	1255	2305	1330	2440	1415	2580	1495	2725	1585	2875	1670	3030
			4000	1330	2440	1415	2585	1505	2735	1590	2890	1685	3055	1810	3295
			5000	1415	2585	1505	2740	1600	2905	1695	3070	1795	3240	1995	3675
			6000	1505	2745	1605	2910	1705	3085	1805	3265	1940	3515	2200	4120
			7000	1605	2915	1710	3095	1815	3285	1925	3475	2140	3940	2440	4665
			8000	1710	3100	1825	3295	1940	3500	2090	3795	2375	4450	---	---
			9000	1830	3305	1950	3515	2070	3735	2320	4280	2640	5075	---	---
			10,000	1955	3525	2080	3750	2285	4175	2585	4875	2950	5875	---	---
			11,000	2090	3760	2250	4065	2540	4725	2880	5595	3305	6915	---	---
			12,000	2235	4025	2500	4600	2830	5410	3225	6525	3710	8435	---	---

Figure 5-21. Takeoff Distance (Sheet 1 of 2)

(CARGO POD INSTALLED)

**TAKEOFF DISTANCE  
7500 AND 7000 LBS  
SHORT FIELD**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WEIGHT LBS	TAKEOFF SPEED KIAS		PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C		
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	
7500	70	80	S.L.	1660	950	1750	1840	1065	1940	1125	2040	1185	2140	1185	2140	
			1000	1745	1005	1840	1065	1945	1130	2045	1190	2155	1255	2265	1255	2265
			2000	1840	1065	1945	1130	2050	1195	2165	1265	2275	1335	2395	1335	2395
			3000	1945	1135	2055	1200	2170	1275	2290	1345	2410	1420	2540	1420	2540
			4000	2055	1205	2175	1280	2300	1355	2425	1430	2555	1535	2755	1535	2755
			5000	2175	1280	2300	2435	1440	2570	1525	2710	1690	2935	1860	3055	1690
	7000	67	77	6000	2305	1360	2440	2435	1440	2570	1525	2710	1690	2935	1860	3055
				7000	2445	1450	2595	2745	1535	2900	1645	2935	1815	3270	2055	3815
				8000	2595	1550	2755	2920	1635	3160	1775	3160	2005	3660	2055	3815
				9000	2760	1650	2935	3110	1765	3355	1965	3535	2225	4135	2055	3815
				10,000	2940	1765	3125	3460	1935	3990	2180	4525	2770	5415	2055	3815
				11,000	3135	1905	3380	3885	2145	4525	2425	5180	3100	6330	2055	3815
7000	67	77	12,000	3350	2115	3795	4400	2385	5180	3100	6330	2055	3815	2055	3815	
			S.L.	1395	805	1470	1545	850	1625	900	1625	950	1705	1000	1790	
			1000	1465	850	1545	1630	905	1715	955	1715	1010	1800	1065	1890	
			2000	1545	905	1630	1720	1015	1810	1070	1810	1070	1900	1130	2000	
			3000	1630	960	1720	1815	1075	1915	1135	1915	1135	2015	1200	2115	
			4000	1720	1020	1820	1920	1145	2025	1210	2025	1210	2130	1300	2290	
	7000	67	77	5000	1820	1080	1925	2035	1215	2145	1285	2260	1425	2530	1425	2530
				6000	1925	1150	2035	2155	1295	2275	1390	2275	1390	2440	1565	2800
				7000	2040	1225	2160	2285	1380	2410	1530	2410	1530	2705	1730	3120
				8000	2165	1305	2295	2430	1495	2620	1690	2620	1690	3010	1900	2115
				9000	2300	1395	2440	2580	1655	2920	1870	2920	1870	3370	2080	2310
				10,000	2445	1490	2595	2860	1835	3270	2080	3270	2080	3805	2310	4320
11,000	2600	1610	2800	3195	2035	3675	2310	3675	2310	4320	2310	4320				
12,000	2775	1780	3125	3585	2265	4160	2580	4160	2580	4945	2580	4945				

Figure 5-21. Takeoff Distance (Sheet 2 of 2)

(CARGO POD INSTALLED)

**TAKEOFF DISTANCE**  
**MAXIMUM WEIGHT 8000 LBS**  
**FLAPS 0°**

**CONDITIONS**

Flaps 0°  
1900 RPM  
Inertial Separator - Normal  
Cabin Heat - Off  
Torque Set per Figure 5-7  
Paved, Level, Dry Runway  
Zero Wind  
Cargo Pod Installed

**NOTES:**

1. Use Type II or Type IV anti-ice fluid takeoff technique as specified in Section 4.
2. Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
3. For operation on a dry, grass runway, increase distances by 15% of the "ground roll" figure.
4. With takeoff power set below the torque limit (1658 ft-lbs), increase distance (both ground roll and total distance) by 3% for inertial separator in BYPASS and 5% for cabin heat on.
5. Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WT. LBS	TAKEOFF SPEED KIAS		PRES ALT FT	-20°C		-10°C		0°C		10°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS		
8000	89	104	SL 2000 4000 6000 8000 10000 12000	1340 1495 1670 1880 2120 2395 2715	2415 2675 2970 3310 3705 4165 4695	1420 1585 1775 1995 2250 2545 2890	2550 2825 3140 3505 3930 4420 4990	1500 1675 1880 2115 2390 2705 3210	2685 2980 3315 3705 4155 4660 5620	1585 1775 1990 2240 2530 2945 3605	2825 3140 3495 3910 4390 5130 6470

Figure 5-21A. Takeoff Distance (Sheet 1 of 2)



(CARGO POD INSTALLED)

**TAKEOFF DISTANCE**

7500 and 7000 LBS

FLAPS 0°

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WT LBS	TAKEOFF SPEED KIAS		PRES ALT FT	-20°C		-10°C		0°C		10°C	
	LIFT OFF	AT 50 FT		GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FEET TO CLEAR 50 FT OBS
7500	89	104	SL	1245	2250	1320	2375	1395	2500	1475	2630
			2000	1390	2490	1475	2630	1560	2775	1650	2920
			4000	1555	2765	1650	2925	1750	3090	1850	3255
			6000	1750	3085	1855	3265	1970	3450	2085	3640
			8000	1970	3450	2095	3655	2220	3865	2350	4085
			10000	2225	3875	2365	4110	2515	4350	2735	4765
7000	89	104	SL	1155	2085	1225	2200	1295	2320	1365	2440
			2000	1290	2310	1365	2440	1445	2570	1530	2710
			4000	1440	2565	1530	2710	1620	2860	1715	3015
			6000	1620	2855	1720	3025	1825	3195	1930	3370
			8000	1825	3195	1940	3385	2055	3580	2175	3780
			10000	2060	3585	2190	3805	2325	4030	2530	4410
			12000	2335	4045	2485	4295	2755	4835	3085	5555

Figure 5-21A. Takeoff Distance (Sheet 2 of 2)

(CARGO POD INSTALLED)

**RATE OF CLIMB - TAKEOFF FLAP SETTING**

**FLAPS 20°**

CONDITIONS:  
Takeoff Power  
1900 RPM  
Inertial Separator - Normal  
Cargo Pod Installed

NOTES:

1. Do not exceed torque limit for takeoff per ENGINE TORQUE FOR TAKEOFF chart. When ITT exceeds 765°C, this power setting is time limited to 5 minutes.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20°C	0°C	20°C	40°C
8000	S.L.	91	890	870	850	825
	2000	90	870	845	825	800
	4000	90	845	820	795	760
	6000	89	820	795	765	630
	8000	89	795	765	725	495
	10,000	89	765	730	580	---
	12,000	88	730	640	440	---
7500	S.L.	90	995	975	955	935
	2000	89	975	955	930	910
	4000	89	955	930	905	870
	6000	88	930	905	875	735
	8000	88	905	875	835	595
	10,000	88	875	845	685	---
	12,000	87	840	750	540	---
7000	S.L.	89	1115	1095	1075	1055
	2000	89	1095	1075	1055	1030
	4000	88	1075	1055	1030	990
	6000	88	1050	1025	1000	850
	8000	87	1025	995	955	705
	10,000	87	995	965	800	---
	12,000	86	960	870	650	---

Figure 5-22. Rate-of-Climb - Takeoff Flap Setting

(CARGO POD INSTALLED)

MAXIMUM RATE OF CLIMB

FLAPS UP

CONDITIONS:

1900 RPM

Inertial Separator - Normal

Cargo Pod Installed

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_p$  of 101.6%.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM				
			-40°C	-20°C	0°C	20°C	40°C
8000	S.L.	106	1025	1005	985	965	900
	4000	105	985	965	945	925	650
	8000	103	945	920	895	680	380
	12,000	101	895	865	645	390	---
	16,000	97	745	565	350	110	---
	20,000	93	445	270	65	---	---
	24,000	89	170	---	---	---	---
	28,000	85	---	---	---	---	---
7500	S.L.	105	1135	1115	1095	1080	1010
	4000	104	1100	1080	1060	1035	750
	8000	103	1060	1035	1010	785	470
	12,000	100	1010	980	750	485	---
	16,000	96	855	665	445	190	---
	20,000	92	545	365	150	---	---
	24,000	88	260	85	---	---	---
	28,000	83	---	---	---	---	---
7000	S.L.	104	1255	1240	1220	1205	1130
	4000	103	1220	1205	1185	1165	860
	8000	102	1185	1160	1135	900	565
	12,000	99	1135	1110	870	585	---
	16,000	95	975	780	550	285	---
	20,000	90	655	485	240	---	---
	24,000	86	360	180	---	---	---
	28,000	82	85	---	---	---	---

Figure 5-23. Maximum Rate-of-Climb - Flaps Up

(CARGO POD INSTALLED)

**CRUISE CLIMB**

**FLAPS UP - 120 KIAS**

CONDITIONS:

1900 RPM

Inertial Separator - Normal

Cargo Pod Installed

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 785°C or  $N_p$  of 101.8%.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	RATE OF CLIMB - FPM			
		-20°C	0°C	20°C	40°C
8000	S.L.	935	905	875	620
	2000	905	875	850	480
	4000	875	845	730	340
	6000	845	810	675	195
	8000	810	735	405	40
	10,000	770	550	235	—
	12,000	680	375	65	—
7500	S.L.	1035	1000	975	700
	2000	1000	975	945	555
	4000	970	945	825	405
	6000	940	910	655	255
	8000	905	825	480	90
	10,000	865	635	300	—
	12,000	750	450	120	—
7000	S.L.	1145	1110	1085	795
	2000	1110	1085	1055	640
	4000	1080	1050	925	480
	6000	1050	1015	745	320
	8000	1015	930	560	145
	10,000	975	725	365	—
	12,000	850	530	175	—

Figure 5-24. Cruise Climb - Flaps Up - 120 KIAS

(CARGO POD INSTALLED)

**RATE OF CLIMB - BALKED LANDING**

**FLAPS 30°**

**CONDITIONS:**

Takeoff Power  
1900 RPM  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTES:**

1. Do not exceed torque limit for takeoff per ENGINE TORQUE FOR TAKEOFF chart. When ITT exceeds 765°C, this power setting is time limited to 5 minutes.
2. With inertial separator set in BYPASS or cabin heat on, and climb power set below the torque limit, decrease rate of climb by 50 fpm for each condition.
3. Where rate of climb values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected or operating temperature limits of the airplane would be greatly exceeded. Those rates of climb which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	RATE OF CLIMB - FPM			
			-20°C	0°C	20°C	40°C
7800	S.L.	83	815	795	775	750
	2000	83	795	770	745	720
	4000	82	770	745	720	680
	6000	82	745	715	685	555
	8000	82	715	685	640	425
	10,000	81	685	650	505	---
	12,000	81	645	560	370	---
7300	S.L.	82	925	900	880	855
	2000	82	900	880	855	830
	4000	81	880	855	825	785
	6000	81	855	825	795	660
	8000	81	825	795	750	525
	10,000	80	790	760	605	---
	12,000	80	755	665	465	---
6800	S.L.	81	1040	1020	1000	980
	2000	81	1020	1000	975	950
	4000	80	1000	975	945	905
	6000	80	975	945	915	775
	8000	80	945	915	870	635
	10,000	79	915	880	720	---
	12,000	79	880	785	575	---

Figure 5-25. Rate-of-Climb - Balked Landing

(CARGO POD INSTALLED)

TIME, FUEL, AND DISTANCE TO CLIMB

MAXIMUM RATE OF CLIMB

CONDITIONS:

Flaps Up  
1900 RPM  
Inertial Separator - Normal  
Cargo Pod Installed

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb ITT of 765°C or  $N_g$  of 101.6%.
2. Add 35 pounds of fuel for engine start, taxi, and takeoff allowance.
3. Distances shown are based on zero wind.
4. With inertial separator set in BYPASS or cabin heat on, increase time, fuel, and distance numbers by 1% for each 1000 feet of climb above 10,000 feet for each condition.
5. Where time, fuel, and distance values have been replaced by dashes, an appreciable rate of climb for the weight shown cannot be expected.

WEIGHT LBS	PRESS ALT FT	CLIMB SPEED KIAS	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
			CLIMB FROM SEA LEVEL								
			TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM
8000	S.L.	106	0	0	0	0	0	0	0	0	0
	4000	105	4	27	7	4	28	7	4	29	8
	8000	103	8	54	15	8	56	15	9	61	18
	12,000	101	13	82	23	13	86	25	16	98	32
	16,000	97	18	112	32	20	121	37	26	147	52
	20,000	93	24	149	46	29	168	57	46	232	95
	24,000	89	36	204	70	50	254	101	—	—	—
7500	S.L.	105	0	0	0	0	0	0	0	0	0
	4000	104	4	24	8	4	25	7	4	26	7
	8000	103	7	49	13	8	50	14	8	54	16
	12,000	100	11	73	20	12	76	22	14	86	27
	16,000	96	16	100	28	17	106	33	22	125	44
	20,000	92	21	131	40	25	144	48	36	183	73
	24,000	88	31	173	58	39	202	77	90	382	191
7000	S.L.	104	0	0	0	0	0	0	0	0	0
	4000	103	3	22	6	3	22	6	3	23	6
	8000	102	7	43	12	7	45	12	7	48	14
	12,000	99	10	66	18	10	68	19	12	75	24
	16,000	95	14	89	25	15	94	28	19	108	37
	20,000	90	19	115	35	22	125	41	29	151	58
	24,000	86	26	150	49	32	168	62	51	231	105
	28,000	82	43	212	83	55	253	111	—	—	—

Figure 5-26. Time, Fuel, and Distance to Climb (Sheet 1 of 2)

(CARGO POD INSTALLED)

**TIME, FUEL, AND DISTANCE TO CLIMB**

CONDITIONS:

Flaps Up  
1900 RPM  
Inertial Separator - Normal  
Cargo Pod Installed

**CRUISE CLIMB - 120 KIAS**

NOTES:

1. Torque set at 1658 foot-pounds or lesser value must not exceed maximum climb IIT of 765°C or  $N_g$  of 101.6%.
2. Add 35 pounds of fuel for engine start, taxi, and takeoff allowance.
3. Distances shown are based on zero wind.
4. With inertial separator set in BYPASS or cabin heat on, increase time, fuel, and distance numbers by 1% for each 1000 feet of climb above 10,000 feet for each condition.

WEIGHT LBS	PRESS ALT FT	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
		CLIMB FROM SEA LEVEL								
		TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM	TIME MIN	FUEL LBS	DIST NM
8000	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	15	4	2	16	5	3	18	6
	4000	4	30	9	5	31	9	6	38	13
	6000	7	45	14	7	47	15	10	59	20
	8000	9	60	19	10	63	20	14	84	30
	10,000	12	76	24	13	81	27	19	114	43
	12,000	14	92	30	16	102	35	27	154	62
7500	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	13	4	2	14	4	3	16	5
	4000	4	27	8	4	28	8	5	34	11
	6000	6	40	12	6	42	13	8	52	18
	8000	8	54	17	9	57	18	12	73	26
	10,000	11	68	22	11	72	24	17	98	37
	12,000	13	83	27	14	90	31	23	130	52
7000	S.L.	0	0	0	0	0	0	0	0	0
	2000	2	12	3	2	13	4	2	15	5
	4000	4	24	7	4	25	8	5	30	10
	6000	6	36	11	6	38	12	7	46	16
	8000	7	48	15	8	51	16	11	64	23
	10,000	9	61	19	10	65	21	15	85	32
	12,000	11	74	24	13	80	28	20	111	45

Figure 5-26. Time, Fuel, and Distance to Climb (Sheet 2 of 2)

**(CARGO POD INSTALLED)**

**CRUISE PERFORMANCE**

**NOTES**

The following general information is applicable to all Cruise Performance Charts contained in Figure 5-27, Sheet 2 through Sheet 16, in this section.

1. The highest torque shown for each temperature and RPM corresponds to maximum allowable cruise power. Do not exceed this torque, 740°C ITT, or 101.6% Ng, whichever occurs first.
2. The lowest torque shown for each temperature and RPM corresponds to the recommended torque setting for best range in zero wind conditions.
3. With the inertial separator in BYPASS and power set below the torque limit (1658 foot-pounds), decrease the maximum cruise torque by 100 foot-pounds. Do not exceed 740°C ITT. Fuel flow for a given torque setting will be 5 to 10 pph higher.
4. With the cabin heat on and power set below the torque limit (1658 foot-pounds), decrease maximum cruise torque by 50 foot-pounds. Do not exceed 740°C ITT. Fuel flow for a given torque setting will be 5 to 10 pph higher.

Figure 5-27. Cruise Performance (Sheet 1 of 16)



(CARGO POD INSTALLED)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 2000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
45	1266	348	152	1355	348	152	1448	348	150
40	1362	361	157	1456	361	156	1554	361	154
				1400	353	153	1480	361	151
30	1547	387	164	1651	387	163	1758	387	161
	1400	364	157	1500	364	156	1600	364	155
	1350	357	155	1400	350	152	1465	346	149
20	1658	402	167	1800	407	167	1956	413	168
	1500	377	160	1600	376	159	1800	389	161
	1335	351	152	1405	347	151	1600	360	153
							1460	341	147
10	1658	399	165	1800	403	165	1970	411	165
	1500	374	158	1600	372	158	1800	385	159
	1345	350	151	1400	344	149	1600	357	152
				1380	341	148	1440	336	145
0	1658	396	163	1800	400	163	1970	406	163
	1500	371	157	1600	369	156	1800	382	158
	1340	347	149	1400	340	147	1600	354	150
				1370	336	146	1425	330	143
-10	1658	393	161	1800	396	162	1970	403	161
	1500	368	155	1600	366	154	1800	378	156
	1335	343	147	1400	337	145	1600	350	149
				1360	331	144	1405	324	141
-20	1658	390	159	1800	393	160	1970	399	160
	1500	366	153	1600	363	152	1800	375	154
	1325	339	145	1400	334	144	1600	347	147
				1340	326	141	1400	320	139
-30	1658	388	157	1800	389	158	1970	395	158
	1500	363	151	1600	360	150	1800	371	152
	1325	337	143	1400	331	142	1600	343	145
				1350	324	140	1395	315	137
-40	1658	385	155	1800	386	156	1970	392	156
	1500	361	149	1600	357	148	1800	367	150
	1315	333	140	1400	328	140	1600	339	143
				1345	320	138	1400	313	135
							1375	310	135
-50	1658	383	153	1800	383	153	1970	388	154
	1500	359	146	1600	354	146	1800	363	148
	1330	333	139	1400	325	138	1600	336	141
				1340	317	136	1400	309	134
							1365	305	132
-54	1658	382	152	1800	382	153	1970	386	153
	1500	358	146	1600	353	145	1800	362	148
	1330	332	138	1400	324	137	1600	334	141
				1325	314	134	1400	308	133
							1360	303	131

Figure 5-27. Cruise Performance (Sheet 2 of 16)

(CARGO POD INSTALLED)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 4000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
40	1262	337	155	1349	337	154	1441	337	152
							1430	335	152
30	1434	361	162	1531	361	161	1630	361	159
	1300	339	155	1400	341	155	1500	341	154
				1345	333	152	1420	330	150
20	1603	385	168	1708	385	167	1815	385	165
	1400	353	159	1600	368	163	1700	368	160
	1285	335	153	1400	338	154	1500	338	152
				1350	330	151	1410	326	148
10	1658	391	169	1800	396	169	1970	405	168
	1500	366	162	1600	365	161	1800	379	162
	1300	334	162	1400	335	152	1600	350	155
	1285	332	151	1330	325	149	1400	322	146
							1390	320	146
0	1658	389	167	1800	393	167	1970	401	167
	1500	363	160	1600	362	159	1800	375	161
	1300	332	151	1400	332	150	1600	346	153
	1280	329	149	1320	320	147	1400	318	145
							1375	315	144
-10	1658	386	165	1800	390	165	1970	397	165
	1500	361	158	1600	359	158	1800	372	159
	1300	330	149	1400	329	149	1600	343	152
	1275	325	147	1315	317	145	1400	315	143
							1360	309	142
-20	1658	383	163	1800	386	163	1970	393	163
	1500	358	156	1600	356	156	1800	368	157
	1300	327	147	1400	326	147	1600	340	150
	1260	321	145	1295	311	142	1400	312	142
							1345	304	139
-30	1658	380	161	1800	383	161	1970	390	161
	1500	356	154	1600	353	154	1800	365	156
	1300	325	145	1400	323	145	1600	336	148
	1260	319	143	1290	307	140	1400	308	140
							1345	301	138
-40	1658	378	159	1800	380	159	1970	387	159
	1500	353	152	1600	350	152	1800	361	154
	1300	323	143	1400	321	143	1600	333	147
	1255	316	141	1275	303	138	1400	305	138
							1325	295	135
-50	1658	376	156	1800	378	157	1970	384	157
	1500	351	150	1600	347	150	1800	358	152
	1300	321	141	1400	318	141	1600	329	145
	1260	315	139	1280	300	136	1400	302	137
							1315	290	133
-54	1658	376	156	1800	377	156	1970	383	156
	1500	350	149	1600	346	149	1800	356	151
	1300	320	140	1400	317	141	1600	328	144
	1265	315	138	1275	299	135	1320	289	132

Figure 5-27. Cruise Performance (Sheet 3 of 16)

(CARGO POD INSTALLED)  
CRUISE PERFORMANCE  
PRESSURE ALTITUDE 6000 FEET

CONDITIONS:  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

NOTE  
DO NOT EXCEED MAXIMUM CRUISE  
TORQUE OR 740 DEG C ITT

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
35	1250	325	157	1335	325	156	1423	325	154
				1310	320	154	1380	318	151
30	1329	336	160	1418	336	159	1510	336	157
	1255	325	156	1305	319	154	1400	320	152
20							1380	317	151
	1485	359	167	1583	359	165	1682	359	163
	1300	329	157	1400	330	157	1500	331	155
10	1245	320	154	1295	314	152	1365	311	149
	1635	380	172	1740	380	170	1845	380	168
	1500	358	166	1600	358	165	1700	358	162
	1300	327	155	1400	327	155	1500	328	154
0	1230	315	152	1290	311	150	1350	307	147
	1658	382	171	1800	388	171	1970	399	170
	1500	356	164	1600	355	163	1800	370	164
	1300	324	154	1400	324	154	1600	340	157
-10	1225	313	150	1270	305	147	1400	311	148
							1320	300	144
	1658	380	169	1800	386	169	1970	395	168
	1500	354	162	1600	352	161	1800	366	163
-20	1300	322	152	1400	322	152	1600	337	155
	1225	310	148	1265	302	145	1400	308	146
							1315	296	142
	1658	378	167	1800	383	167	1970	392	166
-30	1500	351	160	1600	349	159	1800	363	161
	1300	319	150	1400	319	150	1600	333	153
	1210	306	146	1245	296	143	1400	305	145
							1300	290	140
-40	1658	376	165	1800	380	165	1970	388	164
	1500	349	158	1600	346	157	1800	360	159
	1300	317	149	1400	316	149	1600	330	151
	1200	302	143	1235	292	140	1400	302	143
-50							1290	286	138
	1658	375	163	1800	378	163	1970	386	163
	1500	346	156	1600	343	155	1800	356	157
	1300	315	147	1400	314	147	1600	327	150
-54	1205	301	141	1230	289	138	1400	298	141
							1275	281	136
	1658	373	160	1800	376	161	1970	383	160
	1500	344	154	1600	340	153	1800	353	155
-54	1300	313	144	1400	311	145	1600	324	148
	1200	298	139	1225	286	136	1400	295	140
							1270	277	134
	1658	373	159	1800	375	160	1970	382	160
-54	1500	343	153	1600	339	152	1800	352	154
	1300	312	144	1400	310	144	1600	322	147
	1215	299	139	1215	283	135	1400	294	139
							1265	275	133

Figure 5-27. Cruise Performance (Sheet 4 of 16))

(CARGO POD INSTALLED)

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 8000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

**NOTE**  
**DO NOT EXCEED MAXIMUM CRUISE TORQUE OR 740 DEG C ITT**

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
30	1210	310	157	1292	310	156	1377	310	153
				1260	305	154	1330	304	151
20	1359	332	164	1448	332	163	1539	332	160
	1205	307	155	1300	309	155	1400	311	153
10				1250	301	152	1325	300	149
	1499	352	169	1596	352	168	1693	352	165
0	1300	320	159	1400	321	159	1500	322	157
	1185	302	152	1250	298	150	1310	295	147
-10	1643	377	174	1747	377	172	1851	377	170
	1500	351	168	1600	350	166	1700	350	164
-20	1300	318	157	1400	319	157	1500	319	155
	1170	297	150	1240	294	149	1300	290	146
-30	1658	378	173	1800	385	173	1970	396	172
	1500	348	166	1600	347	165	1800	364	166
-40	1300	315	156	1400	316	155	1600	332	158
	1180	296	149	1220	289	146	1400	302	149
-50							1280	285	143
	1658	377	171	1800	382	171	1970	392	170
-60	1500	345	164	1600	344	163	1800	361	164
	1300	313	154	1400	313	154	1600	329	156
-70	1160	291	146	1210	285	144	1400	299	148
							1255	279	140
-80	1658	375	169	1800	380	169	1970	389	168
	1500	344	162	1600	342	161	1800	358	162
-90	1300	311	152	1400	311	152	1600	325	155
	1160	290	144	1200	280	141	1400	296	146
-100							1250	274	139
	1658	373	166	1800	377	167	1970	385	166
-110	1500	343	160	1600	340	159	1800	355	160
	1300	309	150	1400	308	150	1600	322	153
-120	1160	287	142	1200	279	140	1400	293	144
				1185	276	139	1245	271	137
-130	1658	372	164	1800	374	164	1970	382	164
	1500	341	158	1600	338	157	1800	353	158
-140	1300	307	148	1400	306	148	1600	319	151
	1165	286	141	1200	276	138	1400	290	143
-150				1175	272	137	1225	266	134
	1658	371	163	1800	374	164	1970	381	163
-160	1500	341	157	1600	337	156	1800	352	158
	1300	306	147	1400	306	147	1600	318	150
-170	1165	285	140	1200	275	137	1400	289	142
				1175	271	136	1210	263	133

Figure 5-27. Cruise Performance (Sheet 5 of 16)

**(CARGO POD INSTALLED)**  
**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 10000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

**NOTE**  
**DO NOT EXCEED MAXIMUM CRUISE**  
**TORQUE OR 740 DEG C ITT**

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
25	1171	296	157	1250	296	155	1331	296	153
				1220	292	154	1290	290	150
20	1241	307	161	1323	307	159	1407	307	156
	1180	296	156	1220	290	153	1295	289	150
10	1372	326	167	1460	326	165	1550	326	162
	1200	298	156	1300	300	156	1400	302	155
	1170	293	155	1205	286	151	1275	284	148
0	1506	349	172	1602	348	170	1698	348	167
	1400	328	166	1400	314	160	1500	315	158
	1200	296	155	1205	283	149	1300	285	148
	1150	286	152				1260	279	146
-10	1638	373	176	1741	373	174	1843	373	171
	1500	346	170	1600	346	168	1700	346	166
	1300	310	159	1400	311	159	1500	312	167
	1140	284	149	1200	280	147	1300	282	147
			1185	278	147	1245	274	144	
-20	1658	375	175	1800	382	174	1970	393	174
	1500	344	168	1600	344	166	1800	361	168
	1300	307	157	1400	308	157	1600	324	160
	1145	282	148	1200	278	146	1400	294	150
			1180	274	145	1230	269	141	
-30	1658	374	173	1800	379	172	1970	390	172
	1500	342	166	1600	341	165	1800	358	166
	1300	305	156	1400	306	155	1600	322	158
	1130	278	146	1200	276	144	1400	292	149
			1175	271	143	1205	263	139	
-40	1658	372	170	1800	377	170	1970	386	170
	1500	341	164	1600	339	162	1800	355	164
	1300	303	164	1400	303	153	1600	319	156
	1135	277	144	1200	273	143	1400	289	147
			1145	265	140	1205	260	137	
-50	1658	370	168	1800	374	168	1970	382	168
	1500	339	161	1600	337	160	1800	352	162
	1300	301	152	1400	301	151	1600	317	154
	1130	274	142	1200	271	141	1400	286	146
			1140	261	138	1200	267	135	
						1190	256	135	
-54	1658	369	167	1800	373	167	1970	381	167
	1500	339	160	1600	336	160	1800	361	161
	1300	301	151	1400	300	151	1600	316	154
	1130	274	141	1200	270	140	1400	284	145
			1145	261	137	1200	266	135	
						1190	254	134	

Figure 5-27. Cruise Performance (Sheet 6 of 16)

(CARGO POD INSTALLED)

**CRUISE PERFORMANCE**  
**PRESSURE ALTITUDE 12000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

**NOTE**  
**DO NOT EXCEED MAXIMUM CRUISE**  
**TORQUE OR 740 DEG C ITT**

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
20	1120	281	155	1195	281	154	1271	281	151
							1270	281	151
10	1244	300	163	1325	300	161	1407	299	158
	1150	284	156	1200	280	153	1300	283	152
				1190	278	153	1265	278	150
0	1371	320	168	1459	320	167	1547	320	164
	1200	290	158	1300	293	158	1400	295	156
	1145	281	155	1180	274	151	1250	273	148
-10	1494	343	173	1588	343	171	1682	343	168
	1300	305	163	1400	307	162	1500	308	160
	1135	277	152	1200	275	151	1300	278	149
				1180	272	149	1245	269	146
-20	1614	365	177	1715	365	175	1814	365	172
	1500	343	171	1600	343	170	1700	343	167
	1300	303	161	1400	305	160	1500	306	158
	1125	274	150	1200	273	149	1300	275	148
				1170	268	147	1220	263	143
-30	1658	372	177	1800	379	176	1929	383	174
	1500	341	170	1600	341	168	1800	359	170
	1300	302	159	1400	303	159	1600	322	161
	1115	270	148	1200	271	147	1400	288	152
				1155	263	145	1200	257	141
-40	1658	370	175	1800	376	174	1970	388	174
	1500	339	167	1600	339	166	1800	356	167
	1300	301	157	1400	301	157	1600	319	159
	1100	267	145	1200	268	146	1400	285	150
				1145	259	143	1200	255	139
						1185	252	139	
-50	1658	368	172	1800	374	172	1970	385	172
	1500	338	165	1600	336	164	1800	352	165
	1300	299	155	1400	299	155	1600	317	158
	1105	265	143	1200	266	144	1400	282	149
				1130	255	140	1200	252	138
						1185	250	137	
-54	1658	367	171	1800	373	171	1970	384	171
	1500	338	164	1600	335	163	1800	351	165
	1300	299	154	1400	298	154	1600	316	157
	1105	265	143	1200	265	143	1400	281	148
				1125	253	139	1200	251	137
						1180	248	136	

Figure 5-27. Cruise Performance (Sheet 7 of 16)

**(CARGO POD INSTALLED)**

**CRUISE PERFORMANCE  
PRESSURE ALTITUDE 14000 FEET**

**CONDITIONS:**  
8000 POUNDS  
INERTIAL SEPARATOR - NORMAL

<b>NOTE</b>
<b>DO NOT EXCEED MAXIMUM CRUISE TORQUE OR 740 DEG C ITT</b>

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP DEG C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
15	1065	266	153	1136	266	152	1208	266	148
10	1123	274	157	1197	274	156	1272	274	152
				1190	274	155	1265	273	152
0	1241	293	164	1321	293	162	1401	293	159
	1150	277	158	1200	273	155	1260	270	151
-10				1175	268	153			
	1357	315	170	1443	315	168	1529	315	165
	1200	284	160	1300	287	160	1400	290	158
-20	1135	272	155	1165	265	151	1240	264	148
	1472	336	174	1564	336	172	1656	336	169
	1300	302	164	1400	305	164	1500	306	162
-30	1115	267	152	1200	268	152	1300	271	151
				1155	261	149	1220	259	146
	1567	353	177	1665	353	175	1763	353	172
-40	1400	320	168	1500	322	167	1600	322	165
	1200	281	156	1300	283	156	1400	285	155
	1105	264	150	1155	258	147	1205	254	144
	1658	372	179	1768	373	177	1871	373	174
-50	1500	338	171	1600	338	170	1700	338	167
	1300	299	161	1400	300	160	1500	301	158
	1100	261	148	1200	263	149	1300	266	148
				1145	255	145	1185	248	141
	1658	370	176	1800	378	176	1970	390	175
-54	1500	337	169	1600	336	168	1800	354	169
	1300	298	159	1400	298	158	1600	317	161
	1100	260	146	1200	262	147	1400	281	152
	1080	256	145	1135	251	143	1200	249	140
							1165	243	138
-54	1658	370	175	1800	377	175	1970	388	175
	1500	336	168	1600	335	167	1800	353	168
	1300	297	158	1400	298	158	1600	316	160
	1100	260	145	1200	261	146	1400	280	151
	1080	255	144	1125	248	142	1200	247	140
						1165	242	138	

Figure 5-27. Cruise Performance (Sheet 8 of 16)

**(CARGO POD INSTALLED)**

**CRUISE PERFORMANCE**

**PRESSURE ALTITUDE 16,000 FEET**

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
10	1001	250	147	1068	250	145	1136	250	141
0	1112	267	156	1185	267	154	1258	266	151
-10	1223	287	163	1301	287	161	1380	287	158
	1120	266	155	1180	263	153	1255	263	150
-20	1335	308	168	1419	308	166	1503	308	163
	1200	281	160	1300	285	159	1300	269	151
	1105	262	153	1155	258	150	1240	258	148
-30	1425	324	171	1515	324	169	1604	324	166
	1300	300	164	1400	302	163	1400	285	156
	1100	260	151	1200	264	151	1220	253	145
				1150	254	148			
-40	1516	342	174	1611	342	172	1706	342	169
	1400	318	168	1500	320	167	1600	321	164
	1200	279	156	1300	281	156	1400	283	154
	1075	254	147	1135	249	146	1200	247	143
-50	1612	362	176	1712	362	174	1813	362	171
	1500	338	171	1600	338	169	1700	338	167
	1300	297	160	1400	298	160	1500	299	158
	1100	258	148	1200	261	148	1300	263	147
	1045	247	144	1115	245	143	1180	242	140

Figure 5-27. Cruise Performance (Sheet 9 of 16)



(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 18,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
5	943	235	142	1006	235	139	1069	235	134
-5	1050	252	153	1118	252	150	1188	252	147
-15	1152	271	160	1226	271	158	1301	271	154
	1065	253	153	1130	252	151	1210	254	148
-25	1252	290	166	1331	290	163	1411	290	160
	1100	259	154	1200	264	155	1300	268	153
	1050	250	150	1115	248	148	1195	248	145
-35	1337	305	169	1422	305	167	1506	305	164
	1200	278	160	1300	282	160	1400	285	158
	1035	246	148	1100	242	146	1200	248	145
-45							1175	243	143
	1422	323	172	1512	323	170	1602	323	167
	1300	297	165	1400	299	164	1400	282	156
	1100	257	151	1200	260	152	1200	246	144
-55	1015	240	145	1085	238	143	1160	238	141
	1493	337	174	1586	337	171	1680	336	168
	1300	295	163	1400	297	162	1500	298	160
	1100	256	150	1200	259	150	1300	262	149
	1000	236	142	1060	233	141	1130	232	138

Figure 5-27. Cruise Performance (Sheet 10 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**

**PRESSURE ALTITUDE 20,000 FEET**

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-10	978	235	146	1041	235	144	1106	235	138
	1075	254	156	1144	254	153	1213	253	149
-20	1040	247	152	1105	246	150	1205	252	148
	1163	270	162	1237	270	159	1312	270	156
-30	1035	245	151	1100	243	148	1200	248	147
							1180	245	145
-40	1243	285	166	1322	285	163	1401	285	160
	1100	256	155	1200	261	155	1200	246	146
-50	1030	243	149	1075	236	145	1160	239	143
	1324	302	169	1409	302	167	1493	302	164
-60	1200	275	161	1300	279	161	1300	262	152
	1015	238	146	1100	240	146	1135	232	140
				1060	232	143			
	1332	303	168	1419	303	166	1507	302	163
	1200	274	159	1300	277	159	1400	279	157
	1000	234	144	1100	238	145	1200	243	144
				1050	229	141	1110	226	137

Figure 5-27. Cruise Performance (Sheet 11 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 22,000 FEET

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise  
torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-15	916	222	137	975	221	132			
-25	1010	239	150	1075	239	147	1140	239	142
-35	1088	254	157	1158	253	155	1228	253	151
	1050	246	154	1110	244	150	1210	250	149
-45	1164	268	162	1238	268	160	1313	268	156
	1040	243	152	1100	240	149	1200	245	147
					1085	238	147		
-55	1221	280	165	1299	280	163	1377	279	159
	1100	254	156	1100	239	148	1200	244	146
	1040	242	151	1085	235	146	1175	238	144
-65	1196	273	161	1276	273	160	1359	273	157
	1020	237	147	1100	237	147	1200	241	146
					1070	231	144	1135	229

Figure 5-27. Cruise Performance (Sheet 12 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**

**PRESSURE ALTITUDE 24,000 FEET**

CONDITIONS:  
8000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-30	939	223	140	999	223	135			
-40	1011	236	151	1076	236	148	1142	236	142
-50	1082	251	157	1152	251	155	1222	251	150
	1040	242	153	1105	241	150	1195	245	148
-60	1086	251	156	1157	250	154	1230	250	150
	1040	240	152	1090	236	148			
-70	1062	245	153	1137	244	151	1212	244	148
	1045	239	151	1105	235	148	1190	238	146

Figure 5-27. Cruise Performance (Sheet 13 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 26,000 FEET

CONDITIONS:  
7500 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-35	875	208	139	931	208	134			
-45	943	221	150	1004	221	147	1066	221	141
-55	988	230	155	1051	230	152	1116	229	147
-65	968	225	151	1033	224	149	1102	224	145
-75	945	219	148	1015	219	146	1082	218	143

Figure 5-27. Cruise Performance (Sheet 14 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 28,000 FEET

CONDITIONS:  
7000 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTE**  
Do not exceed maximum cruise torque or 740°C ITT.

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-40	818	195	139	871	195	134			
-50	881	207	150	938	207	147	996	207	141
-60	882	206	150	941	206	147	1001	206	142
-70	862	201	146	924	201	144	985	201	140
-80	842	196	142	906	196	142	967	196	138

Figure 5-27. Cruise Performance (Sheet 15 of 16)

(CARGO POD INSTALLED)  
**CRUISE PERFORMANCE**  
PRESSURE ALTITUDE 30,000 FEET

CONDITIONS:  
6500 Pounds  
Inertial Separator - Normal  
Cargo Pod Installed

<b>NOTE</b> Do not exceed maximum cruise torque or 740°C ITT.
--

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP °C	1900 RPM			1750 RPM			1600 RPM		
	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS	TORQUE FT-LBS	FUEL FLOW PPH	KTAS
-45	759	181	139	808	181	134			
-55	796	188	147	848	188	143	900	187	137
-65	779	184	143	834	183	141	888	183	136
-75	761	179	140	819	179	139	872	178	134

Figure 5-27. Cruise Performance (Sheet 16 of 16)

**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG C	PRESSURE ALTITUDE 1000 FEET			PRESSURE ALTITUDE 2000 FEET			PRESSURE ALTITUDE 3000 FEET			PRESSURE ALTITUDE 4000 FEET			PRESSURE ALTITUDE 5000 FEET		
	WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS		
	PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM			PROPELLER SPEED - RPM		
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
45	1305	1407	1504	1256	1355	1448	--	--	--	--	--	--	--	--	--
40	1414	1512	1613	1362	1456	1554	1312	1403	1498	1262	1349	1441	--	--	--
35	1510	1613	1719	1455	1554	1656	1401	1497	1596	1348	1440	1536	1299	1388	1479
30	1606	1713	1825	1547	1651	1758	1491	1591	1694	1434	1531	1630	1382	1475	1570
25	1619	1775	1928	1603	1726	1857	1561	1673	1790	1519	1620	1723	1463	1560	1659
20	1658	1800	1966	1658	1800	1956	1631	1754	1886	1603	1708	1815	1544	1646	1749
15	1658	1800	1963	1658	1800	1963	1644	1777	1928	1631	1754	1893	1595	1708	1828
10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1647	1770	1908
5	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1652	1785	1939
0	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-5	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-15	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-20	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-25	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-30	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-35	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-40	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-45	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-50	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-54	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970

28 500-29F

Figure 5-27A\*. Cruise Maximum Torque (Sheet 1 of 6)



**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE								
	6000 FEET			7000 FEET			8000 FEET			9000 FEET			10,000 FEET					
	WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM					
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
35	1250	1335	1423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	1329	1418	1510	1270	1355	1444	1210	1292	1377	--	--	--	--	--	--	--	--	--
25	1407	1501	1596	1346	1435	1527	1285	1370	1458	1228	1310	1395	1228	1310	1395	1228	1310	1395
20	1485	1583	1682	1422	1516	1611	1359	1448	1539	1300	1386	1473	1300	1386	1473	1300	1386	1473
15	1560	1662	1764	1495	1592	1690	1429	1522	1616	1368	1457	1547	1368	1457	1547	1368	1457	1547
10	1635	1740	1845	1567	1668	1769	1499	1596	1693	1436	1528	1622	1436	1528	1622	1436	1528	1622
5	1647	1770	1908	1609	1721	1840	1571	1672	1772	1505	1601	1698	1505	1601	1698	1505	1601	1698
0	1658	1800	1970	1651	1774	1911	1643	1747	1851	1575	1675	1775	1575	1675	1775	1575	1675	1775
-5	1658	1800	1970	1654	1787	1940	1651	1774	1911	1611	1723	1841	1611	1723	1841	1611	1723	1841
-10	1658	1800	1970	1658	1800	1970	1658	1800	1970	1648	1771	1907	1648	1771	1907	1648	1771	1907
-15	1658	1800	1970	1658	1800	1970	1658	1800	1970	1653	1785	1938	1653	1785	1938	1653	1785	1938
-20	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-25	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-30	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-35	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-40	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-45	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-50	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970
-54	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970	1658	1800	1970

348324-107

Figure 5-27A\*. Cruise Maximum Torque (Sheet 2 of 6)

(CARGO POD INSTALLED)

**LANDING DISTANCE  
7300 LBS AND 6800 LBS  
SHORT FIELD**

REFER TO SHEET 1 FOR APPROPRIATE CONDITIONS AND NOTES

WEIGHT LBS	SPEED AT 50 FT KIAS	PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
			GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
7300	75	S.L.	610	1430	630	1465	655	1505	675	1540	700	1580	725	1615
		1000	630	1465	655	1505	680	1545	700	1580	725	1620	750	1655
		2000	655	1505	680	1545	705	1585	730	1625	755	1665	780	1700
		3000	680	1545	705	1585	730	1625	755	1665	780	1705	805	1745
		4000	705	1585	730	1625	755	1670	785	1710	810	1755	835	1795
		5000	730	1625	760	1670	785	1715	815	1755	840	1800	870	1845
		6000	760	1670	785	1715	815	1760	845	1805	875	1850	900	1895
		7000	785	1715	815	1765	845	1810	875	1855	905	1900	935	1945
		8000	820	1765	850	1815	880	1860	910	1910	940	1955	975	2000
		9000	850	1815	880	1865	915	1915	945	1960	980	2010	1020	2070
		10,000	885	1865	915	1915	950	1970	985	2020	1025	2075	1060	2130
		11,000	920	1920	955	1970	990	2025	1025	2075	1065	2140	1100	2190
12,000	955	1975	990	2030	1030	2085	1065	2140	1065	2140	1100	2190		
6800	72	S.L.	565	1360	585	1400	610	1435	630	1470	650	1505	670	1540
		1000	585	1395	610	1435	630	1470	650	1505	675	1545	695	1580
		2000	605	1435	630	1470	655	1510	675	1545	700	1585	725	1620
		3000	630	1470	655	1510	680	1560	700	1585	725	1625	750	1665
		4000	655	1510	680	1550	705	1590	730	1630	755	1670	780	1710
		5000	680	1550	705	1590	730	1630	755	1670	780	1715	810	1755
		6000	705	1590	730	1635	760	1675	785	1720	810	1760	840	1805
		7000	730	1635	760	1680	785	1725	815	1765	845	1810	870	1855
		8000	760	1680	790	1725	820	1770	845	1815	875	1860	905	1905
		9000	790	1725	820	1775	850	1820	880	1865	910	1915	945	1970
		10,000	820	1775	850	1825	885	1875	915	1920	945	1970	985	2025
		11,000	855	1825	885	1875	920	1925	950	1975	985	2025	1025	2085
12,000	890	1880	920	1930	955	1980	990	2035	1025	2085	1065	2140		

Figure 5-33. Landing Distance (Sheet 2 of 2)

**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	11,000 FEET		12,000 FEET		13,000 FEET		14,000 FEET		15,000 FEET	
	PRESSURE ALTITUDE		PRESSURE ALTITUDE		PRESSURE ALTITUDE		PRESSURE ALTITUDE		PRESSURE ALTITUDE	
	WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM		WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM	
20	1181	1259	1339	1420	1505	1594	1687	1784	1885	1990
15	1244	1326	1409	1494	1582	1674	1770	1870	1974	2082
10	1308	1393	1479	1568	1660	1756	1856	1960	2068	2180
5	1373	1462	1551	1644	1740	1840	1944	2052	2164	2280
0	1439	1531	1623	1719	1818	1920	2024	2132	2244	2360
-5	1502	1598	1693	1794	1898	2004	2112	2224	2340	2460
-10	1566	1665	1763	1868	1976	2086	2198	2312	2430	2550
-15	1601	1711	1827	1944	2064	2186	2310	2436	2564	2694
-20	1636	1758	1882	2008	2136	2266	2398	2532	2668	2804
-25	1647	1779	1921	2058	2198	2340	2484	2630	2778	2924
-30	1658	1800	1950	2100	2252	2406	2562	2720	2880	3036
-35	1658	1800	1960	2112	2264	2418	2574	2732	2892	3054
-40	1658	1800	1970	2124	2276	2430	2586	2744	2904	3066
-45	1658	1800	1970	2124	2276	2430	2586	2744	2904	3066
-50	1658	1800	1970	2124	2276	2430	2586	2744	2904	3066
-54	1658	1800	1970	2124	2276	2430	2586	2744	2904	3066

Figure 5-27A\*. Cruise Maximum Torque (Sheet 3 of 6)

**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE								
	16,000 FEET			17,000 FEET			18,000 FEET			19,000 FEET			20,000 FEET					
	WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM			WEIGHT = 8000 POUNDS PROPELLER SPEED - RPM					
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
10	1001	1068	1136	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	1057	1127	1197	1000	1066	1133	943	1006	1069	--	--	--	--	--	--	--	--	--
0	1112	1185	1258	1054	1124	1193	997	1062	1129	--	--	--	--	--	--	--	--	--
-5	1168	1243	1319	1109	1181	1254	1050	1118	1188	--	--	--	--	--	--	--	--	--
-10	1223	1301	1380	1162	1237	1312	1101	1172	1245	1040	1107	1175	1040	1107	1175	1040	1107	1175
-15	1279	1360	1442	1216	1293	1371	1152	1226	1301	1089	1159	1230	1089	1159	1230	1089	1159	1230
-20	1335	1419	1503	1269	1349	1430	1202	1279	1356	1139	1211	1285	1139	1211	1285	1139	1211	1285
-25	1380	1467	1554	1316	1399	1482	1252	1331	1411	1186	1261	1337	1186	1261	1337	1186	1261	1337
-30	1425	1515	1604	1360	1446	1531	1295	1377	1459	1229	1307	1385	1229	1307	1385	1229	1307	1385
-35	1471	1563	1655	1404	1493	1581	1337	1422	1506	1270	1351	1431	1270	1351	1431	1270	1351	1431
-40	1516	1611	1706	1448	1539	1630	1380	1467	1554	1311	1395	1478	1311	1395	1478	1311	1395	1478
-45	1564	1662	1760	1493	1587	1681	1422	1512	1602	1353	1439	1525	1353	1439	1525	1353	1439	1525
-50	1612	1712	1813	1535	1631	1727	1458	1549	1641	1391	1479	1567	1391	1479	1567	1391	1479	1567
-55	--	--	--	--	--	--	1493	1586	1680	--	--	--	--	--	--	--	--	--
-60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

28-181-546

Figure 5-27A\*. Cruise Maximum Torque (Sheet 4 of 6)

**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE 21,000 FEET			PRESSURE ALTITUDE 22,000 FEET			PRESSURE ALTITUDE 23,000 FEET			PRESSURE ALTITUDE 24,000 FEET			PRESSURE ALTITUDE 25,000 FEET					
	WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS			WEIGHT = 8000 POUNDS					
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
-15	971	1034	580	916	975	--	--	--	--	--	--	--	--	--	--	--	--	--
-20	1019	1085	607	963	1025	--	--	--	--	--	--	--	--	--	--	--	--	--
-25	1065	1133	1201	1010	1075	1140	--	--	--	--	--	--	--	--	--	--	--	--
-30	1106	1177	1248	1049	1117	1184	994	1058	--	939	999	--	939	999	--	925	984	--
-35	1146	1219	1292	1088	1158	1228	1032	1098	--	975	1038	--	975	1038	--	960	1022	--
-40	1185	1260	1336	1126	1198	1271	1069	1137	1206	1011	1076	1142	1011	1076	1142	995	1059	1124
-45	1224	1302	1380	1164	1238	1313	1105	1176	1248	1047	1114	1182	1047	1114	1182	1024	1090	1157
-50	1258	1339	1419	1193	1269	1345	1137	1210	1284	1082	1152	1222	1082	1152	1222	1036	1103	1171
-55	1264	1346	1428	1221	1299	1377	1153	1227	1302	1084	1155	1226	1084	1155	1226	1032	1100	1170
-60	1270	1353	1438	1209	1288	1368	1147	1222	1299	1086	1157	1230	1086	1157	1230	1032	1100	1170
-65	--	--	--	1196	1276	1359	1135	1212	1290	1074	1147	1221	1074	1147	1221	--	--	--
-70	--	--	--	--	--	--	--	--	--	1062	1137	1212	1062	1137	1212	--	--	--

308100 D-HP

Figure 5-27A\*. Cruise Maximum Torque (Sheet 5 of 6)

**(CARGO POD INSTALLED)  
CRUISE MAXIMUM TORQUE**

CONDITIONS:  
INERTIAL SEPARATOR - NORMAL

REFER TO SHEET 1 FOR APPROPRIATE NOTES APPLICABLE TO THIS CHART

TEMP. DEG. C	PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE			PRESSURE ALTITUDE								
	26,000 FEET			27,000 FEET			28,000 FEET			29,000 FEET			30,000 FEET					
	WEIGHT = 7500 POUNDS			WEIGHT = 7250 POUNDS			WEIGHT = 7000 POUNDS			WEIGHT = 6750 POUNDS			WEIGHT = 6500 POUNDS					
	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600	1900	1750	1600
-35	875	931	--	--	--	--	--	818	871	--	--	--	--	--	--	--	--	--
-40	909	968	--	864	919	--	850	905	--	804	856	--	--	759	808	--	--	--
-45	943	1004	1066	896	954	782	881	938	996	822	875	949	822	878	948	894	948	894
-50	966	1028	1091	923	983	1044	882	940	999	839	894	949	835	891	948	894	948	894
-55	988	1051	1116	927	987	1049	882	940	999	835	891	948	835	891	948	894	948	894
-60	978	1042	1109	930	992	1055	882	941	1001	835	891	948	835	891	948	894	948	894
-65	968	1033	1102	920	983	1048	872	933	993	826	883	941	826	883	941	894	941	888
-70	957	1024	1092	909	974	1039	862	924	985	816	875	933	816	875	933	894	933	880
-75	945	1015	1082	899	965	1029	852	915	976	807	867	924	807	867	924	894	924	872
-80	--	--	--	--	--	--	842	906	967	--	--	--	--	--	--	--	--	--

23 OCT 58

Figure 5-27A\*. Cruise Maximum Torque (Sheet 6 of 6)

(CARGO POD INSTALLED)  
**FUEL AND TIME REQUIRED**  
**MAXIMUM CRUISE POWER**

CONDITIONS:  
8000 Pounds  
1900 RPM  
Inertial Separator - Normal  
Standard Temperature  
Cargo Pod Installed

NOTES:

1. Fuel required includes the fuel used for engine start, taxi, takeoff, maximum climb from sea level, descent to sea level and 45 minutes reserve. Time required includes the time during a maximum climb and descent.
2. With inertial separator in BYPASS or cabin heat on, increase time by 3% and fuel by 2%.

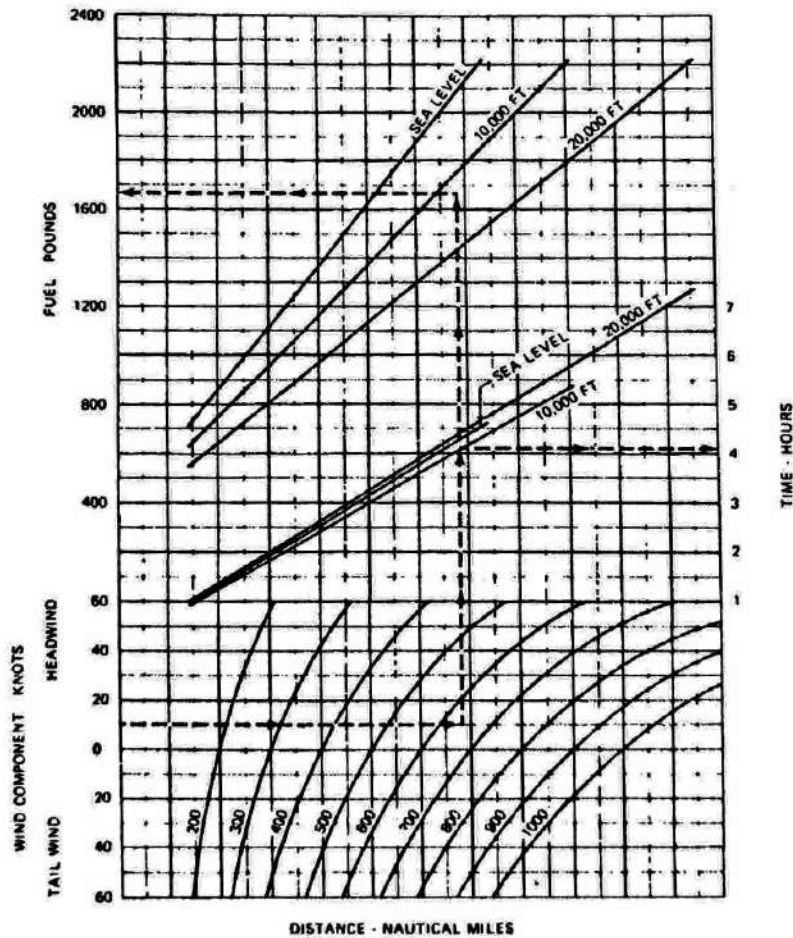


Figure 5-28. Fuel And Time Required - Maximum Cruise Power

(CARGO POD INSTALLED)  
**FUEL AND TIME REQUIRED**  
MAXIMUM RANGE POWER

CONDITIONS:

- 8000 Pounds
- 1900 RPM
- Inertial Separator - Normal
- Standard Temperature
- Cargo Pod Installed

NOTES:

1. Fuel required includes the fuel used for engine start, taxi, takeoff, maximum climb from sea level, descent to sea level and 45 minutes reserve. Time required includes the time during a maximum climb and descent.
2. With inertial separator in BYPASS or cabin heat on, increase time by 3% and fuel by 2%.

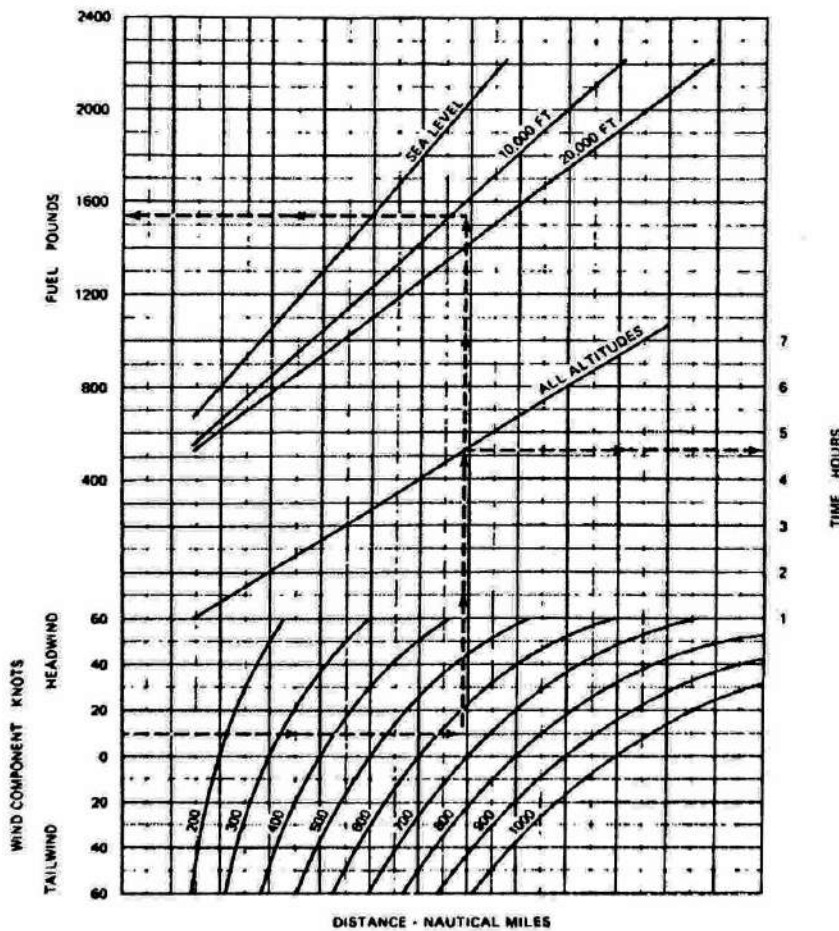


Figure 5-29. Fuel And Time Required - Maximum Range Power



(CARGO POD INSTALLED)  
**RANGE PROFILE**  
45 MINUTES RESERVE  
2224 POUNDS USABLE FUEL

CONDITIONS:  
8000 Pounds  
1900 RPM  
Standard Temperature  
Zero Wind  
Inertial Separator - Normal  
Cargo Pod Installed

- NOTES:
1. This chart allows for the fuel used for engine start, taxi, takeoff, climb and descent. The distance during a maximum climb and the distance during descent are included.
  2. With the inertial separator in BYPASS or cabin heat on, decrease range by 2%.

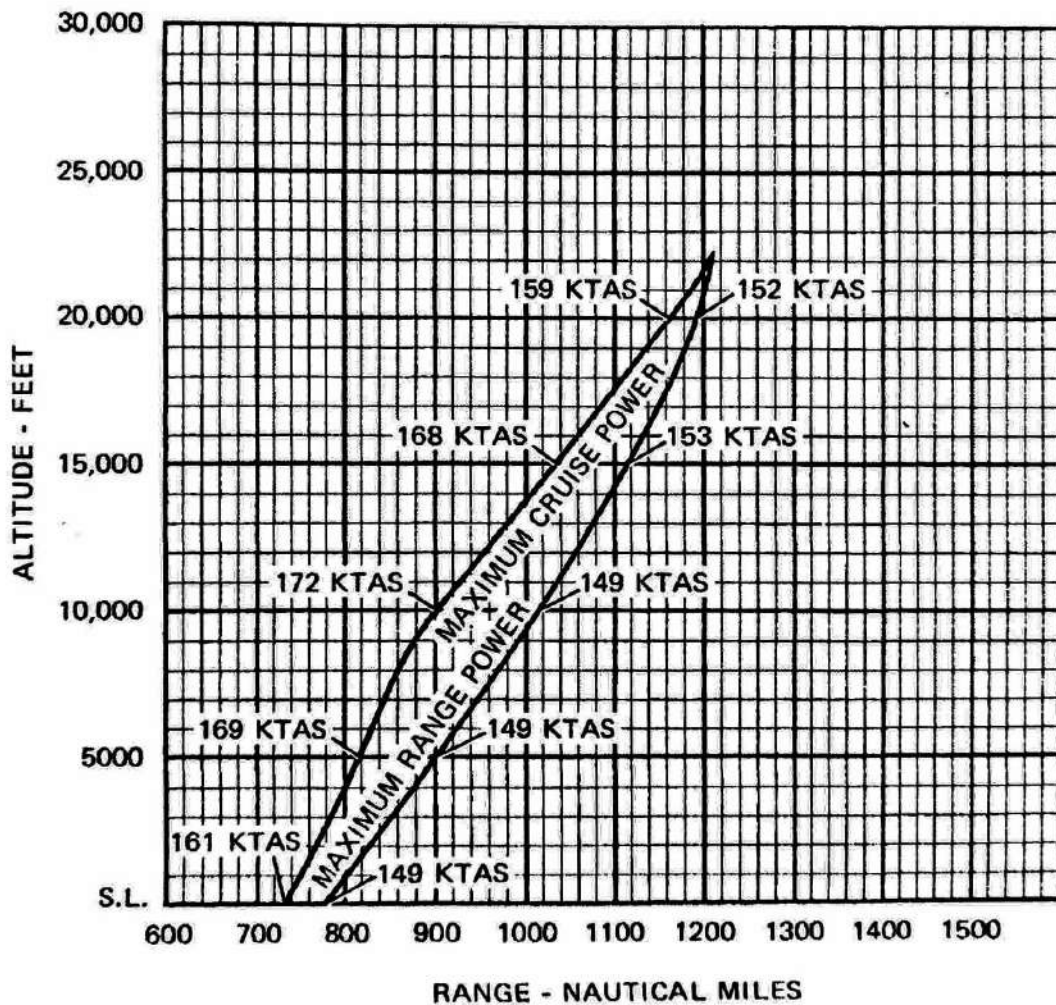


Figure 5-30. Range Profile

**(CARGO POD INSTALLED)**  
**ENDURANCE PROFILE**  
**45 MINUTES RESERVE**  
**2224 POUNDS USABLE FUEL**

**CONDITIONS:**  
8000 Pounds  
1900 RPM  
Standard Temperature  
Inertial Separator - Normal  
Cargo Pod Installed

**NOTES:**

1. This chart allows for the fuel used for engine start, taxi, takeoff, climb and descent. The time during a maximum climb and the time during descent are included.
2. With the inertial separator in BYPASS or cabin heat on, decrease endurance by 2%.

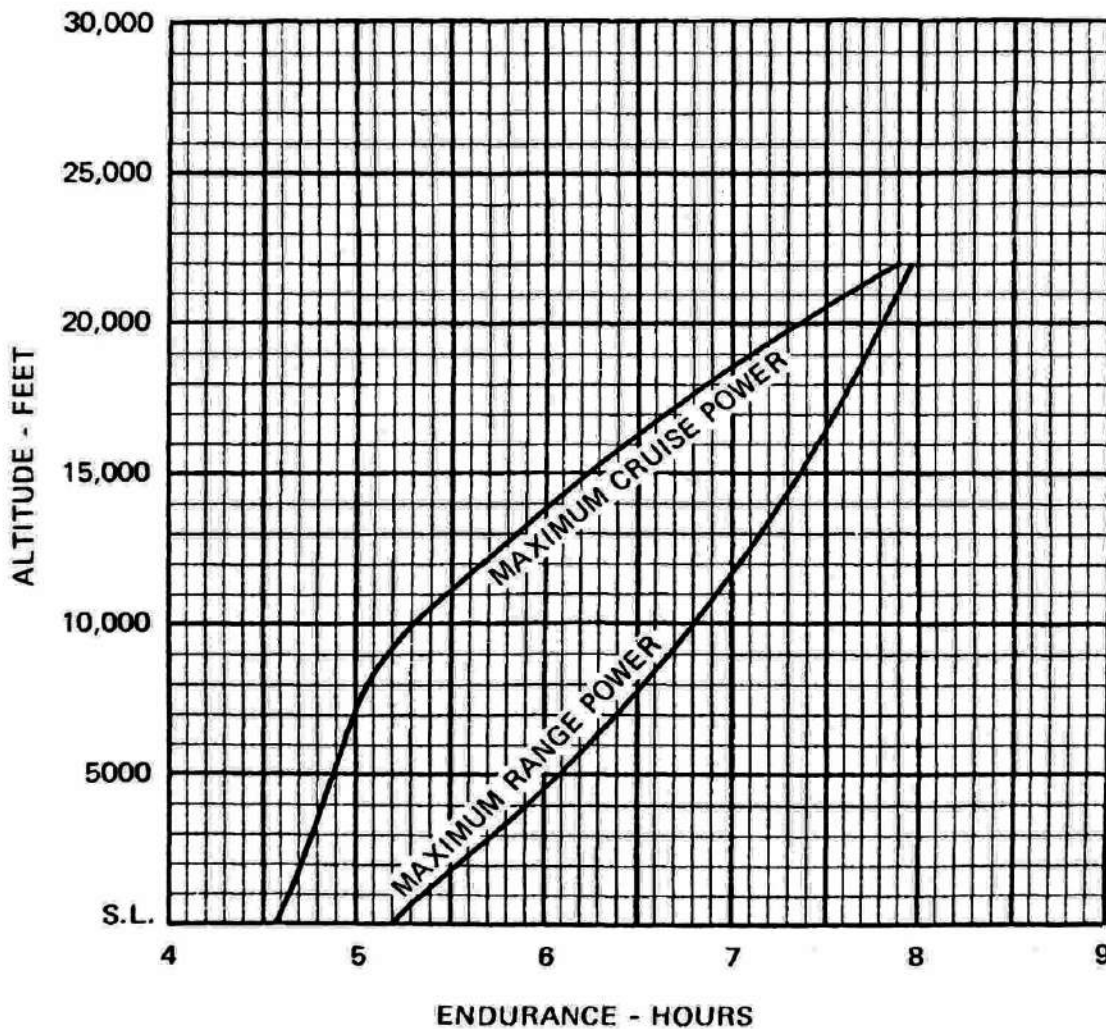


Figure 5-31. Endurance Profile

(CARGO POD INSTALLED)  
**TIME, FUEL, AND DISTANCE TO DESCEND**

CONDITIONS:  
8000 Pounds  
Flaps Up  
140 KIAS Above 16,000  
Feet, 160 KIAS Below  
16,000 Feet  
Power Set for 800 FPM  
Rate of Descent  
1900 RPM  
Cargo Pod Installed

PRESS ALT FT	DESCENT TO SEA LEVEL		
	TIME MIN	FUEL LBS	DIST NM
28,000	35	160	110
24,000	30	141	92
20,000	25	121	75
16,000	20	102	60
12,000	15	76	44
8000	10	51	28
4000	5	26	14
S.L.	0	0	0

NOTE: \_\_\_\_\_  
Distances shown are based  
on zero wind.  
\_\_\_\_\_

Figure 5-32. Time, Fuel, And Distance To Descend

(CARGO POD INSTALLED)

**LANDING DISTANCE**  
**MAXIMUM WEIGHT 7800 LBS**  
**SHORT FIELD**

**CONDITIONS:**

Flaps 30°  
Power Lever - Idle after clearing obstacles, BETA range (lever against spring) after touchdown.  
Propeller Control Lever - MAX  
Maximum Braking  
Paved, Level, Dry Runway  
Zero Wind  
Cargo Pod Installed

**NOTES:**

- Short field technique as specified in Section 4.
- Decrease distances 10% for each 11 knots headwind. For operation with tailwinds up to 10 knots, increase distances by 10% for each 2.5 knots.
- For operation on a dry, grass runway, increase distances by 40% of the "ground roll" figure.
- If a landing with flaps up is necessary, increase the approach speed by 15 KIAS and allow for 40% longer distances.
- Use of maximum reverse thrust after touchdown reduces ground roll by approximately 10%.
- Where distance values have been replaced by dashes, operating temperature limits of the airplane would be greatly exceeded. Those distances which are included but the operation slightly exceeds the temperature limit are provided for interpolation purposes only.

WEIGHT LBS	SPEED AT 50 FT KIAS	PRESS ALT FT	-10°C		0°C		10°C		20°C		30°C		40°C	
			GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS	GRD ROLL FT	TOTAL FT TO CLEAR 50 FT OBS
7800	78	S.L.	650	1500	675	1540	700	1580	720	1620	745	1660	770	1700
		1000	1540	700	1580	725	1620	750	1660	775	1705	800	1745	
		2000	1580	725	1620	750	1665	775	1705	805	1750*	830	1790	
		3000	1620	750	1665	780	1710	805	1750	835	1795	860	1835	
		4000	1665	775	1710	810	1755	835	1800	865	1845	895	1885	
		5000	1710	800	1755	840	1800	870	1850	900	1895	925	1940	
		6000	1755	825	1800	870	1850	900	1900	930	1945	965	1995	
		7000	1805	850	870	1855	905	935	1955	970	2000	1000	2050	
		8000	1855	875	905	1905	940	975	1955	1010	2060	1040	2105	
		9000	1910	930	940	1960	975	1010	2015	1045	2115	1085	2180	
		10,000	945	1965	980	2015	1015	2070	1050	2125	1130	2240	---	---
		11,000	980	2020	1020	2075	1055	2130	1090	2185	1175	---	---	---
12,000	1020	2080	1060	2135	1095	2195	1135	2250	---	---	---	---		

Figure 5-33. Landing Distance (Sheet 1 of 2)