

Weight & Balance Load Sheet VH -TRR

Position:

Front Left (Pilot)
 Front Right (Co-pilot)
 Passenger (Rear Left)
 Passenger (Rear Right)
 Luggage

Details:

Pilot	80
Pax 1	80
Pax 2	80
Pax 3	10
Luggage	40

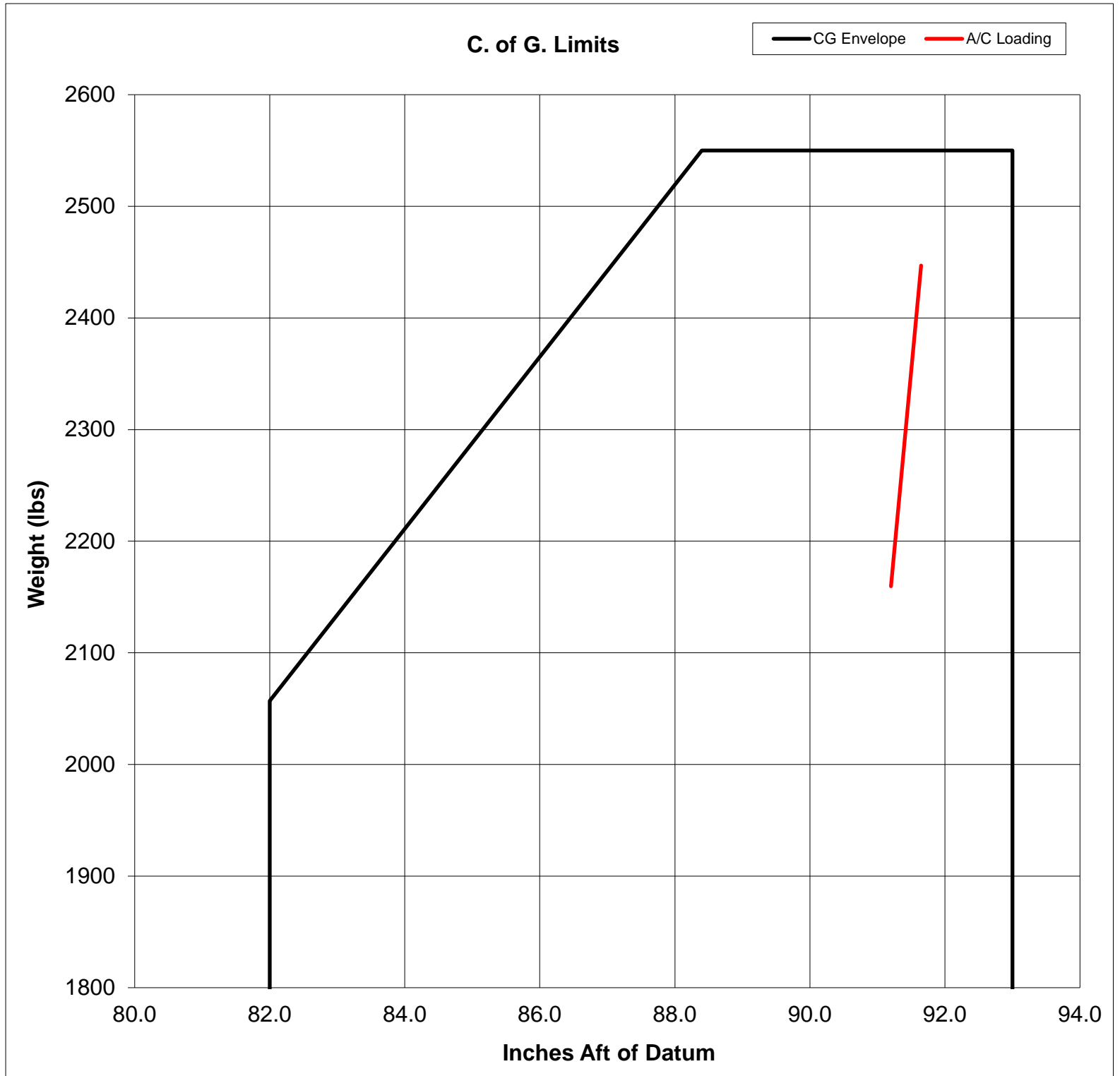
Weight (Kg):

Fuel (litres)
181

Full = 181
 Tabs = 129

Weight & Balance Check Archer II (VH-TRR) (lb-in)				
Description	Item	Weight (lbs)	Arm (in)	Index Units (lb-in/1000)
	Basic Empty	1520	87.2	132.5
Kg => lbs (2.2046)	Oil	0		0.0
mm => in (div 25.4)	Pilot + Front Pax	353	80.5	28.4
	Rear Pax	198	118.1	23.4
	Baggage	88	142.8	12.6
	Zero Fuel	2160	91.2	197.0
	Fuel	287	95.0	27.3
Max=2550 lbs (1157 kg)	Max Fuel	2447	91.6	224.3

Description	Item	Weight (kg)	Arm (mm)	Index Units (kgmm/1000)
	Basic Empty	689.5	2214	1527
lbs => kgs (div 2.2046)	Oil	0.0	0	0
in => mm (x 25.4)	Pilot + Front Pax	160.0	2045	327
	Rear Pax	90.0	3000	270
	Baggage	40.0	3627	145
	Zero Fuel	979.5	2317	2269
0.72 x no. of litres	Fuel	130.3	2413	314
	Max Fuel	1109.9	2328	2584



Arm (mm)		Arm (Inches)	
Wgt (Kg)	Min	Wgt (lbs)	Min
544	2082.8	1200	82.0
933	2082.8	2057	82.0
1157	2245.4	2550	88.4
1157	2362.2	2550	93.0
544	2362.2	1200	93.0
544	2082.8	1200	82.0

0.384615

**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28-181, CHEROKEE ARCHER II**

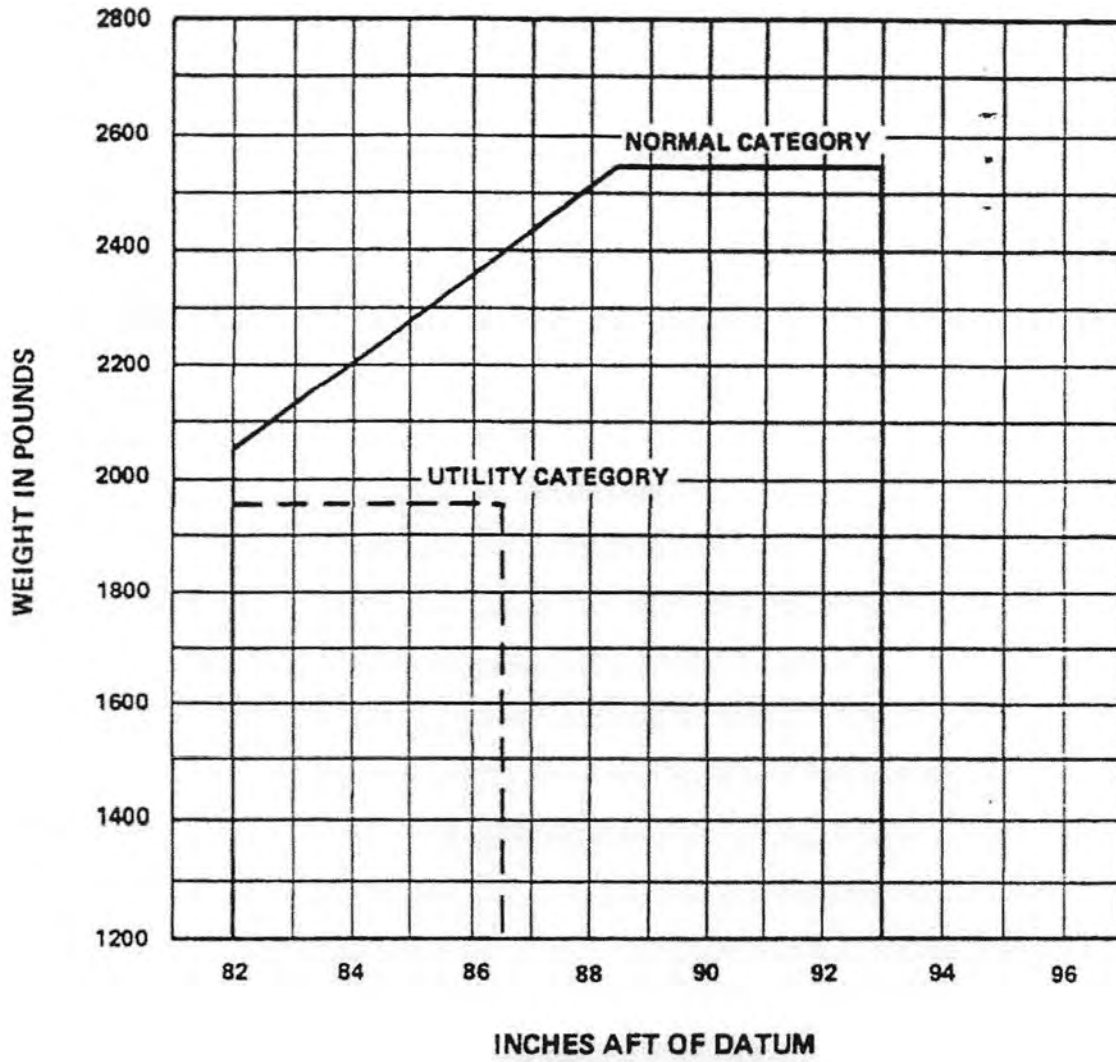
	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight			
Pilot and Front Passenger		80.5	
Passengers (Rear Seats)*		118.1	
Fuel (48 Gallon Maximum)		95.0	
Baggage*		142.8	
Total Loaded Airplane			

Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-00). If the airplane has been altered, refer to the Weight and Balance Record for this information.

*Utility Category Operation - No baggage or rear passengers allowed.

WEIGHT AND BALANCE LOADING FORM

Figure 6-11



C.G. RANGE AND WEIGHT

Figure 6-15

6.2 - AEROPLANE WEIGHT

PA28-181

Aeroplane Type :

Registration Marking : VH- TRR

Issue	Date	Date of Expiry
2	26/7/91	INDEFINITE

Aeroplane Weight and Centre of Gravity Data :

Item	Weight kg	Arm mm aft of datum	Index Unit kg mm	Cabin Configuration
1	689.6	2214.3	1527026.8	4 SEATS
	152016s			

NOTE : The above weight(s) include.....
 INCLUDES UNUSEABLE FUEL AND FULL ENGINE OIL

AIRCRAFT WEIGHT
 CONTROL AUTHORITY
 A.W.3.
 Approval Stamp



**SECTION 6
WEIGHT AND BALANCE**

**PIPER AIRCRAFT CORPORATION
PA-28-181, ARCHER II**

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight			
Pilot and Front Passenger		80.5	
Passengers (Rear Seats)*		118.1	
Fuel (48 Gallon Maximum)		95.0	
Baggage (200 Lbs. Maximum)*		142.8	
Ramp Weight (2558 Lbs. Normal, 2138 Lbs. Utility Maximum)			
Fuel Allowance For Engine Start, Taxi and Run Up	-8	95.0	-760
Takeoff Weight (2550 Lbs. Normal, 2130 Lbs. Utility Maximum)			

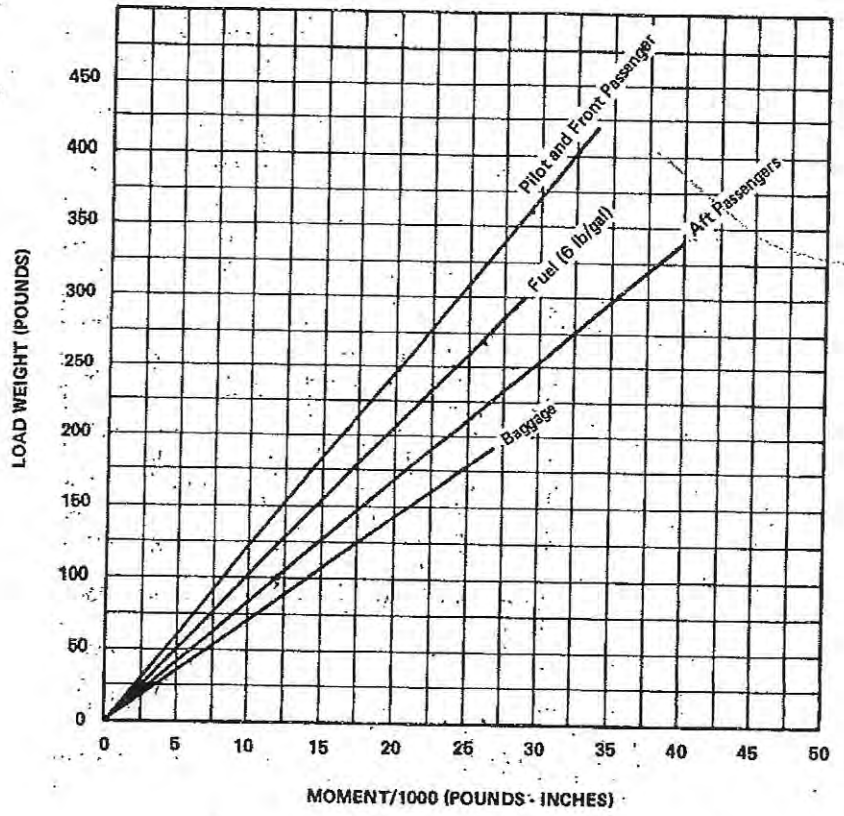
Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-5). If the airplane has been altered, refer to the Weight and Balance Record for this information.

*Utility Category Operation - No baggage or rear passengers allowed.

WEIGHT AND BALANCE LOADING FORM
Figure 6-11

REPORT: VB-1120
6-10

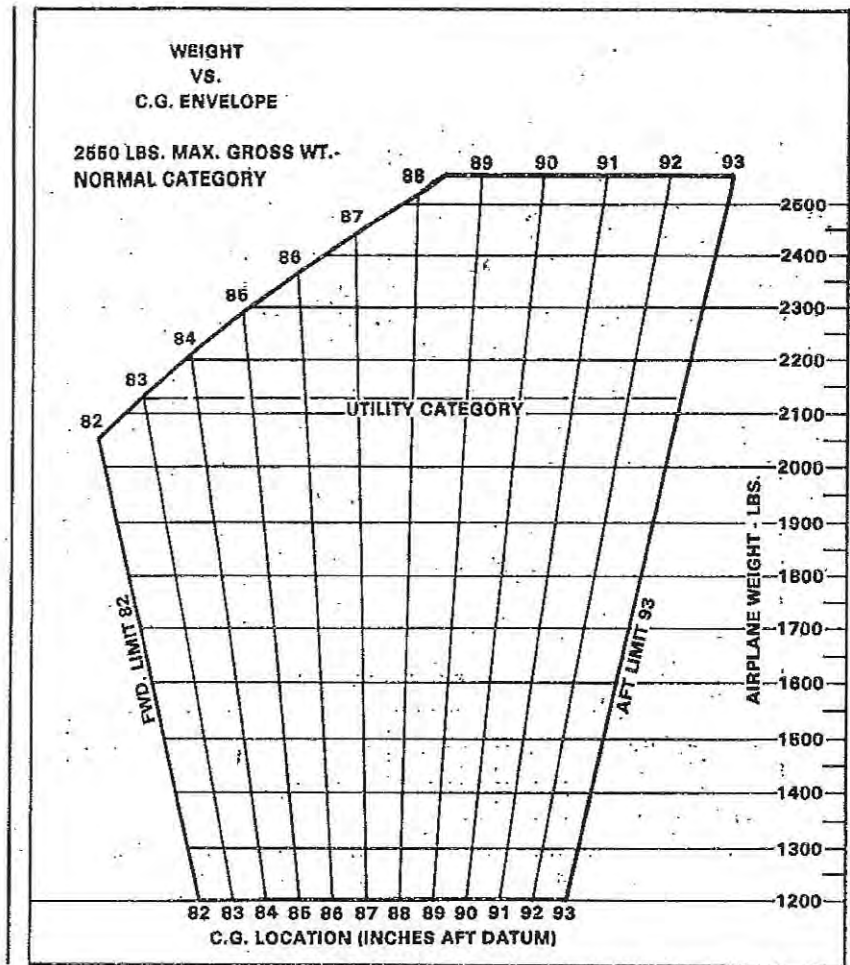
ISSUED: JULY 2, 1979
REVISED: FEBRUARY 2, 1990



LOADING GRAPH
Figure 6-13

ISSUED: JULY 2, 1979

REPORT: VB-1120
6-11

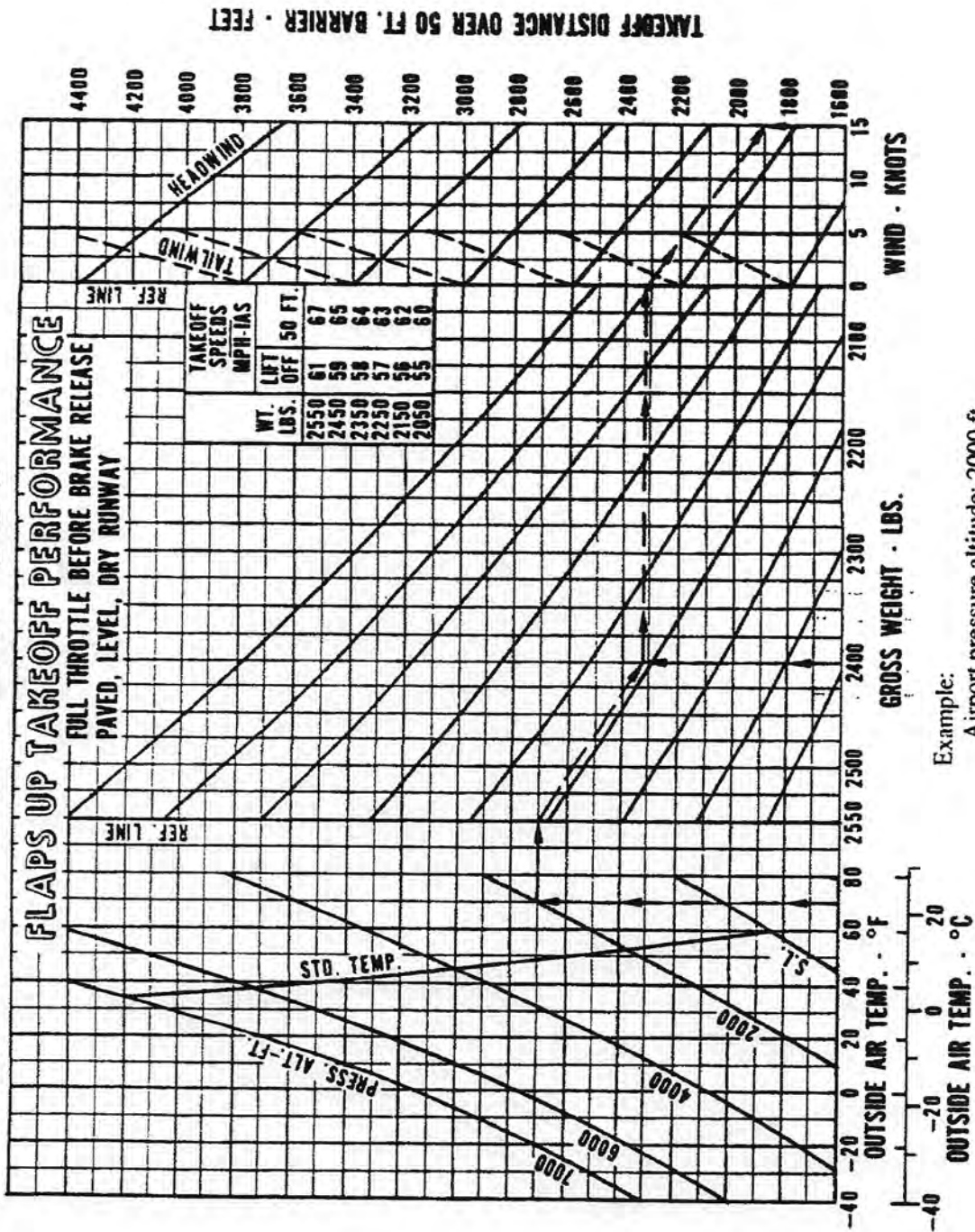


C.G. RANGE AND WEIGHT
Figure 6-15

REPORT: VB-1120
6-12

ISSUED: JULY 2, 1979
REVISED: MAY 29, 1980

PA-28-181



Example:
Airport pressure altitude: 2000 ft.
Temperature: 70°F
Wind: 15 knots (headwind)
Gross weight: 2400 lbs.
Takeoff distance: 1900 ft.

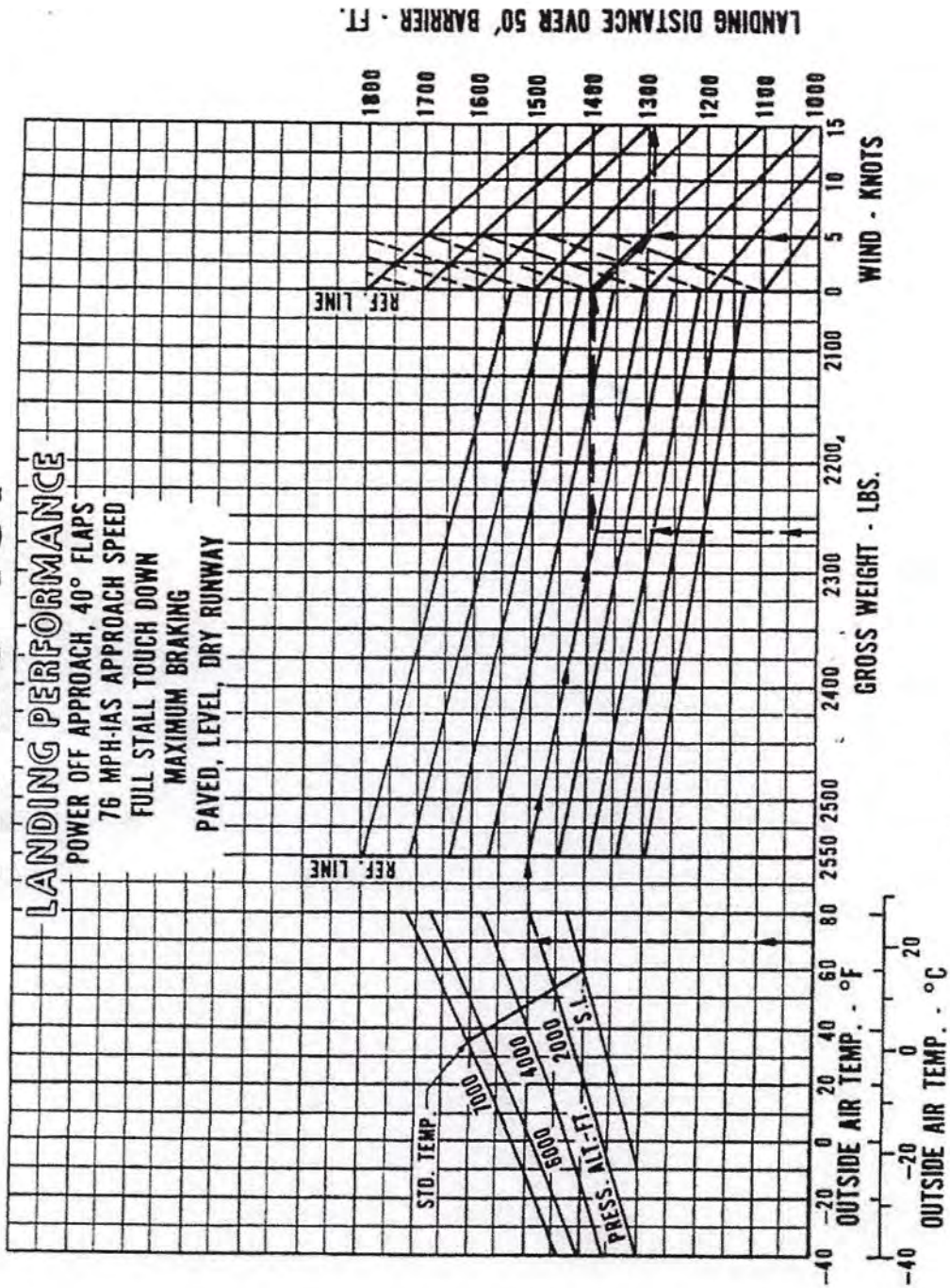
FLAPS UP TAKEOFF PERFORMANCE

Figure 5-5

ISSUED: AUGUST 15, 1975
REVISED: NOVEMBER 12, 1976

REPORT: VB-760
5-13

PA-28-181



Example:
 Airport pressure altitude: 2300 ft.
 Gross weight: 2264 lbs.
 Temperature: 70°F
 Wind: 5 knots (headwind)
 Landing distance: 1290 ft.

LANDING PERFORMANCE

Figure 5-29

ISSUED: AUGUST 15, 1975
 REVISED: NOVEMBER 12, 1976

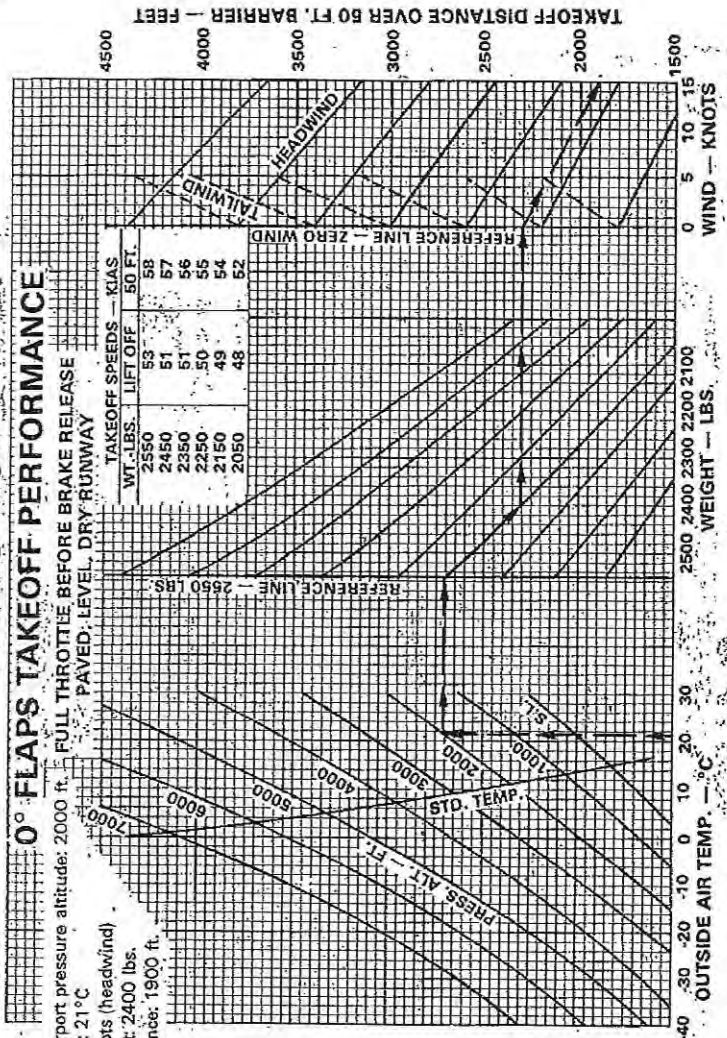
REPORT: VB-760
 5-25

PA-28-181

0° FLAPS TAKEOFF PERFORMANCE

Example:

Departure airport pressure altitude: 2000 ft. FULL THROTTLE BEFORE BRAKE RELEASE
 Temperature: 21°C PAVED, LEVEL, DRY RUNWAY
 Wind: 15 knots (headwind)
 Gross weight: 2400 lbs.
 Takeoff distance: 1900 ft.



FLAPS UP TAKEOFF PERFORMANCE

Figure 5-7

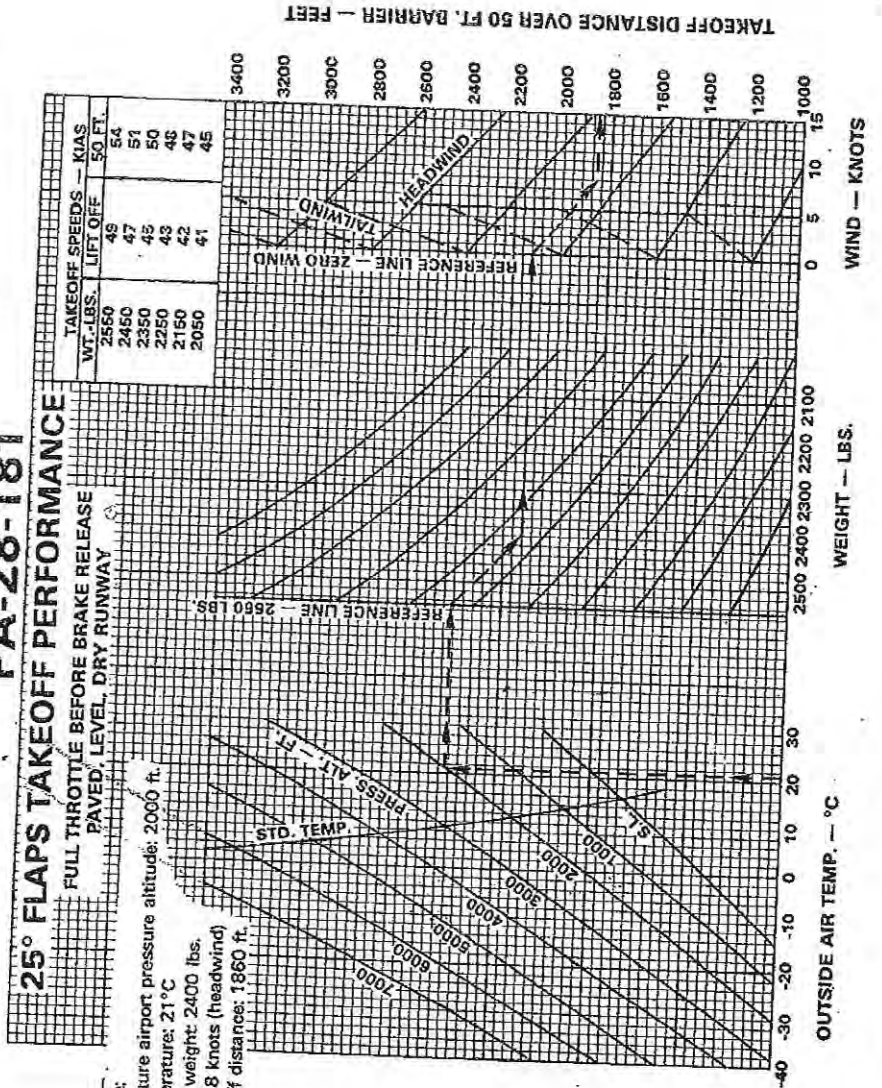
PA-28-181

25° FLAPS TAKEOFF PERFORMANCE

FULL THROTTLE BEFORE BRAKE RELEASE
PAVED, LEVEL, DRY RUNWAY

Example:

Departure airport pressure altitude: 2000 ft.
Temperature: 21°C
Gross weight: 2400 lbs.
Wind: 8 knots (headwind)
Takeoff distance: 1860 ft.



25° FLAPS TAKEOFF PERFORMANCE
Figure 5-9

ISSUED: JULY 2, 1979

REPORT: VB-1120
5-15

PA-28-181

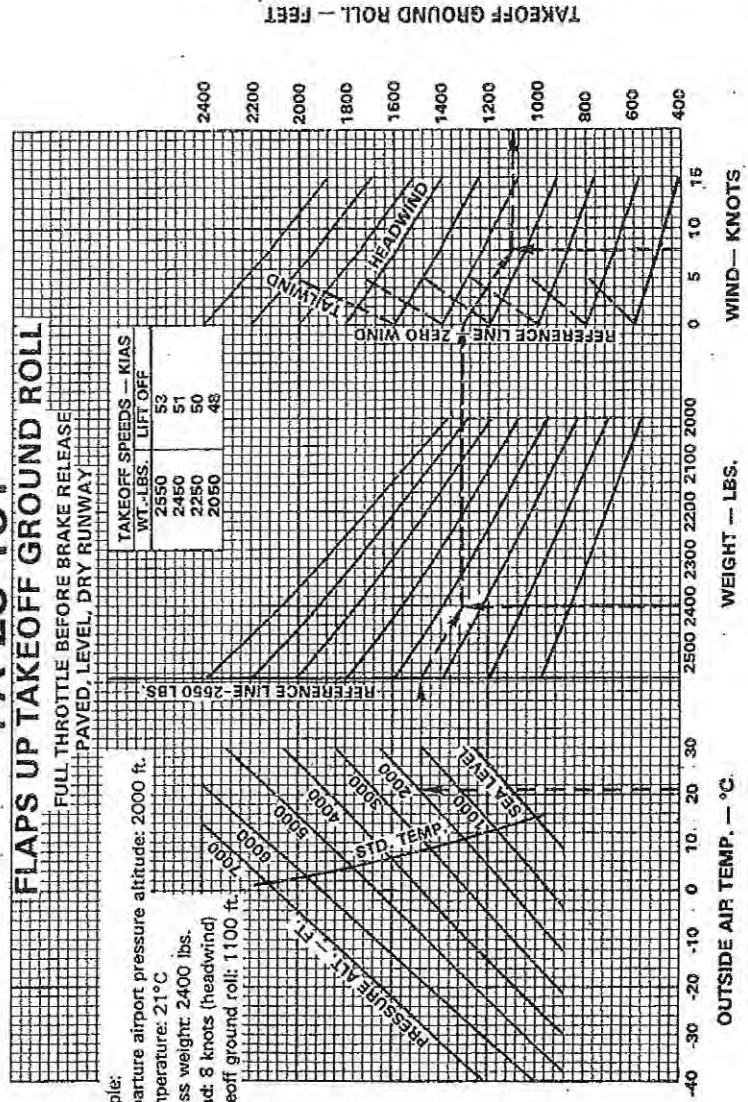
FLAPS UP TAKEOFF GROUND ROLL

FULL THROTTLE BEFORE BRAKE RELEASE
PAVED, LEVEL, DRY RUNWAY

Example:

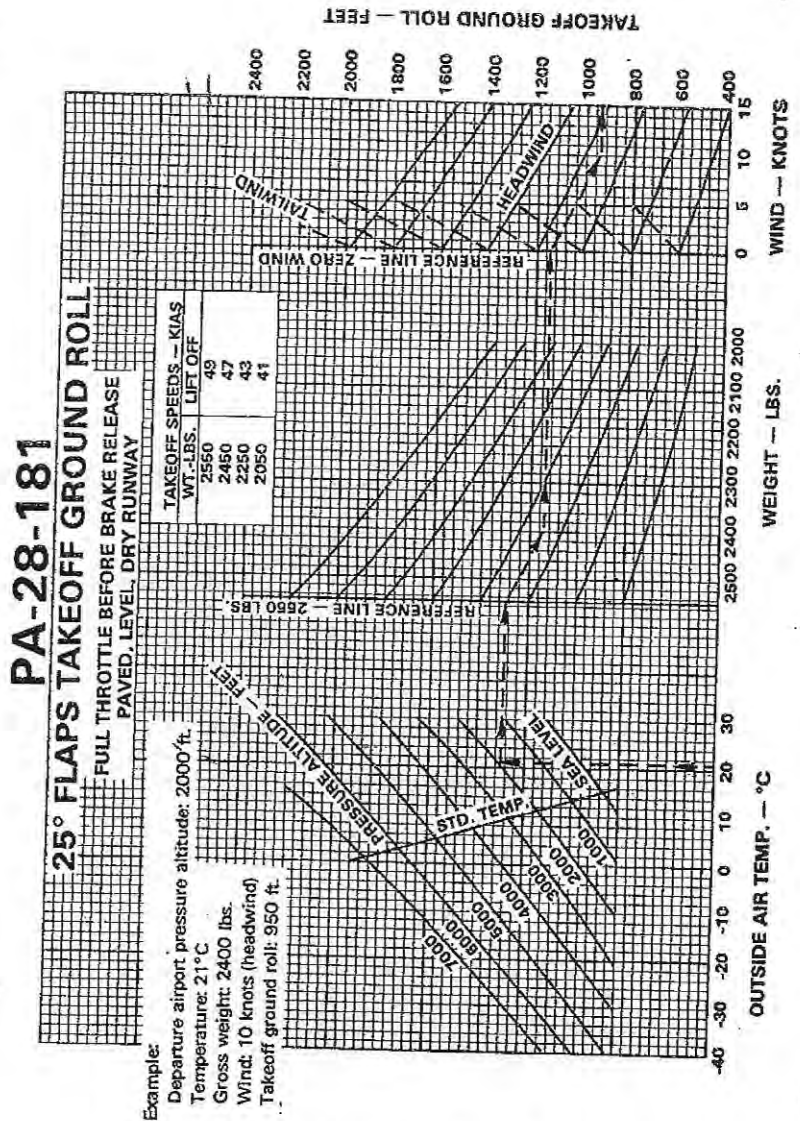
Departure airport pressure altitude: 2000 ft.
Temperature: 21°C
Gross weight: 2400 lbs.
Wind: 8 knots (headwind)
Takeoff ground roll: 1100 ft.

TAKEOFF SPEEDS - KIAS	
WT. - LBS.	LIFT OFF
2550	53
2450	51
2250	50
2050	48



FLAPS UP TAKEOFF GROUND ROLL

Figure 5-11

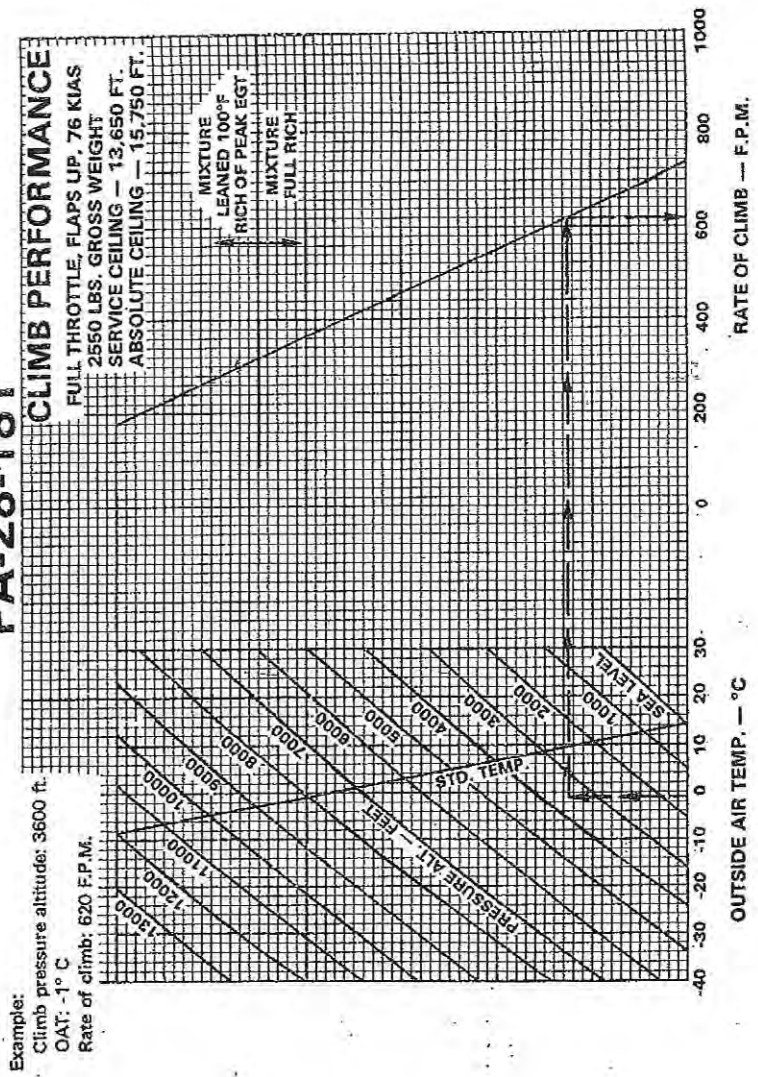


25° FLAPS TAKEOFF GROUND ROLL
 Figure 5-13

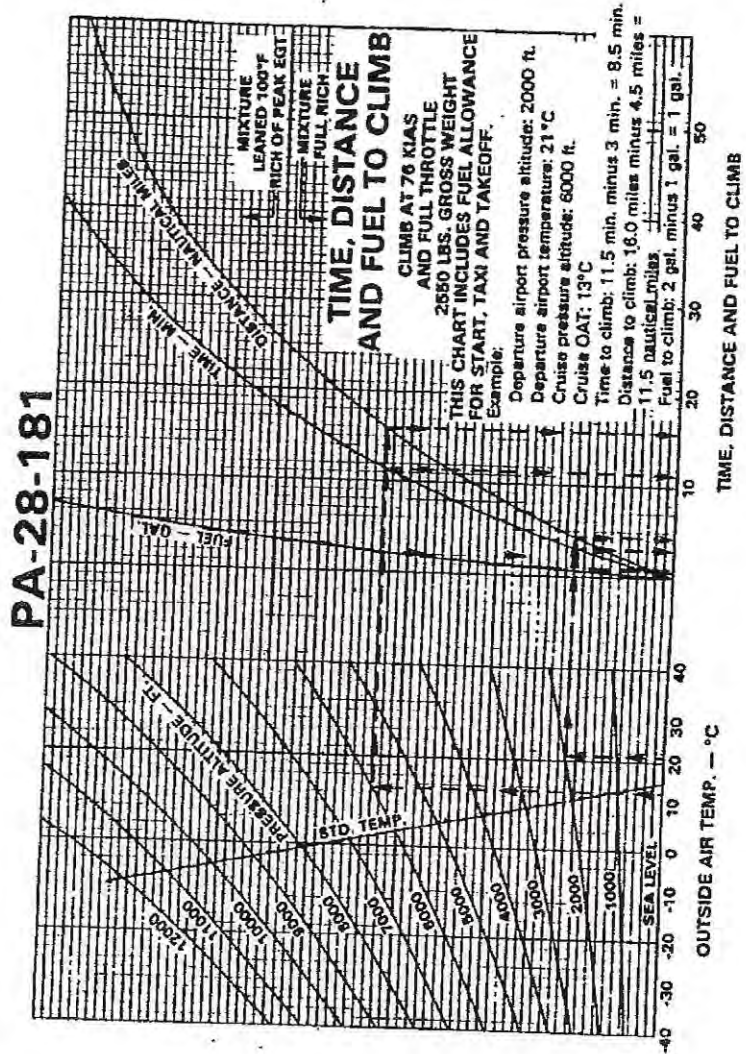
ISSUED: JULY 2, 1979

REPORT: VB-1120
 5-17

PA-28-181



CLIMB PERFORMANCE
Figure 5-15

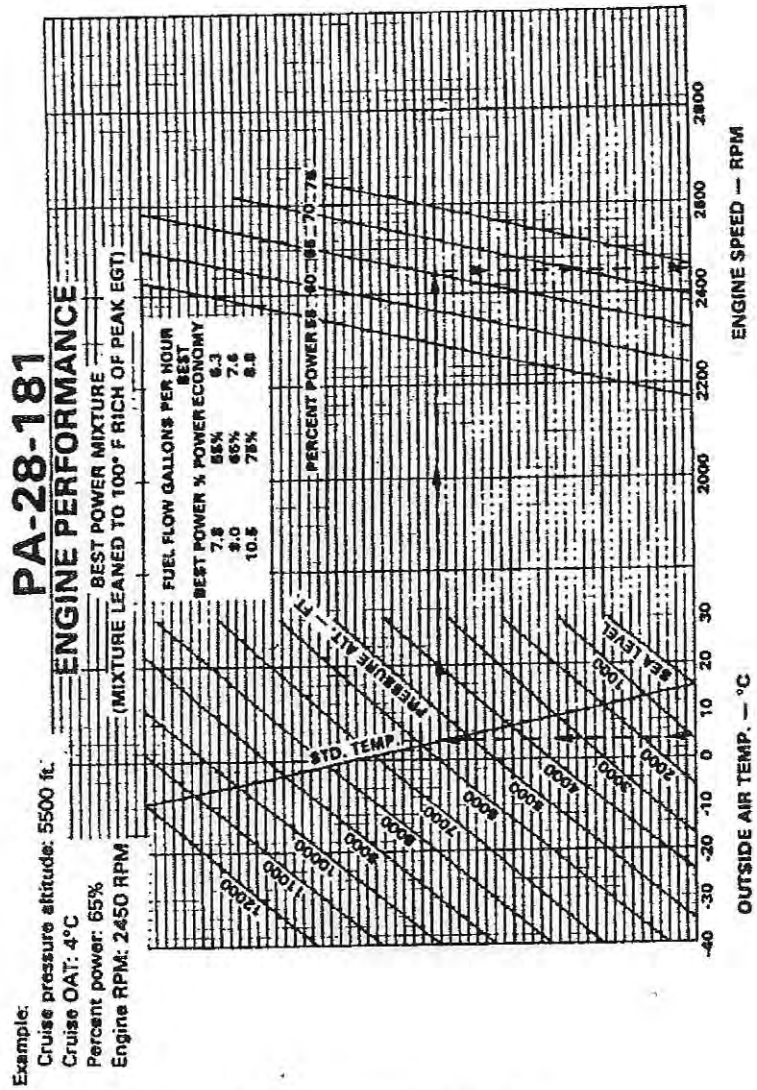


TIME, DISTANCE AND FUEL TO CLIMB

Figure 5-17

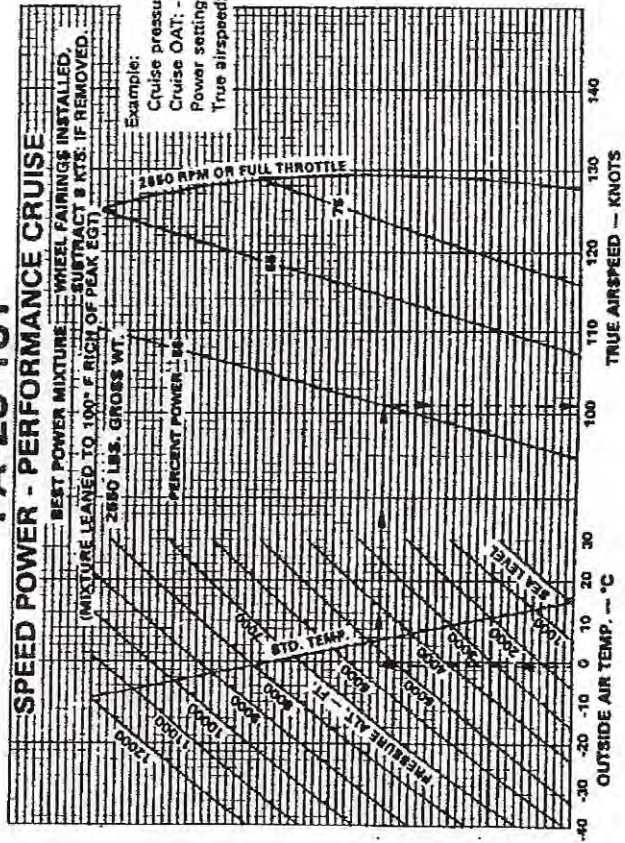
ISSUED: JULY 2, 1979

REPORT: VB-1120



ENGINE PERFORMANCE
Figure 5-19

PA-28-181

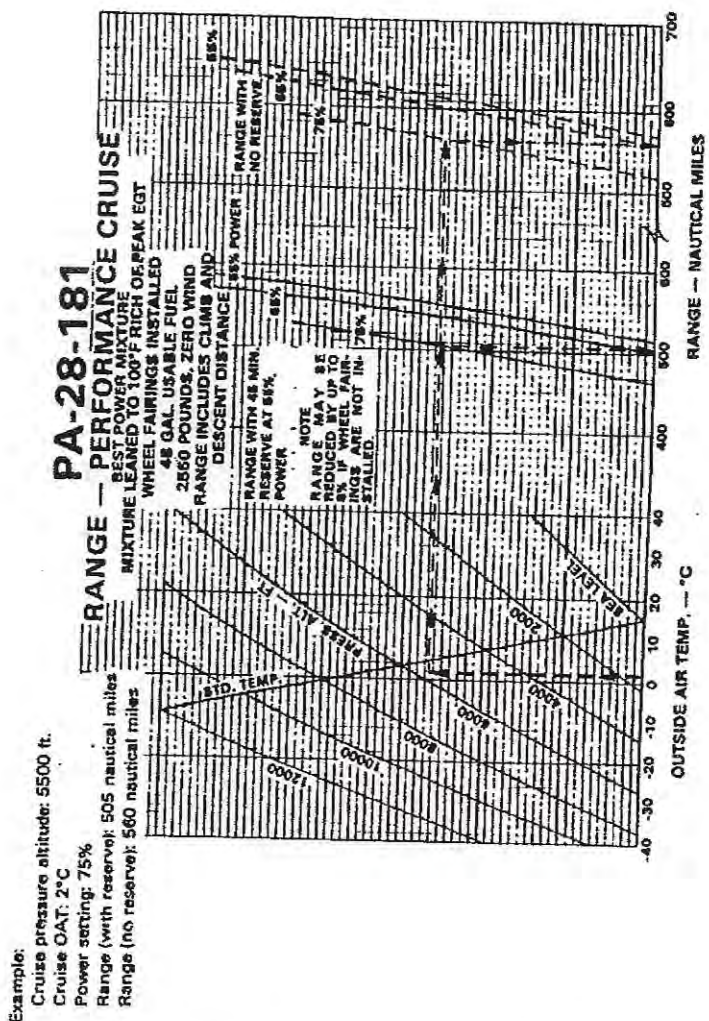


SPEED POWER - PERFORMANCE CRUISE

Figure 5-21

ISSUED: JULY 2, 1979
 REVISED: JULY 2, 1985

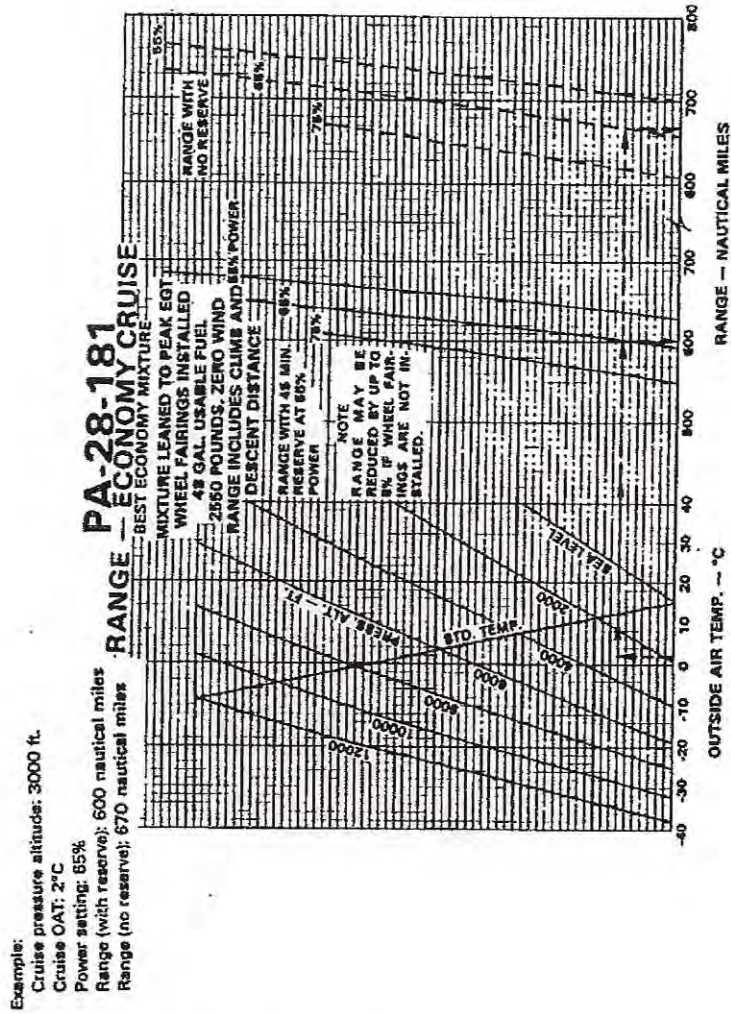
REPORT: VB-1120
 5 21



BEST POWER MIXTURE RANGE
 Figure 5-25

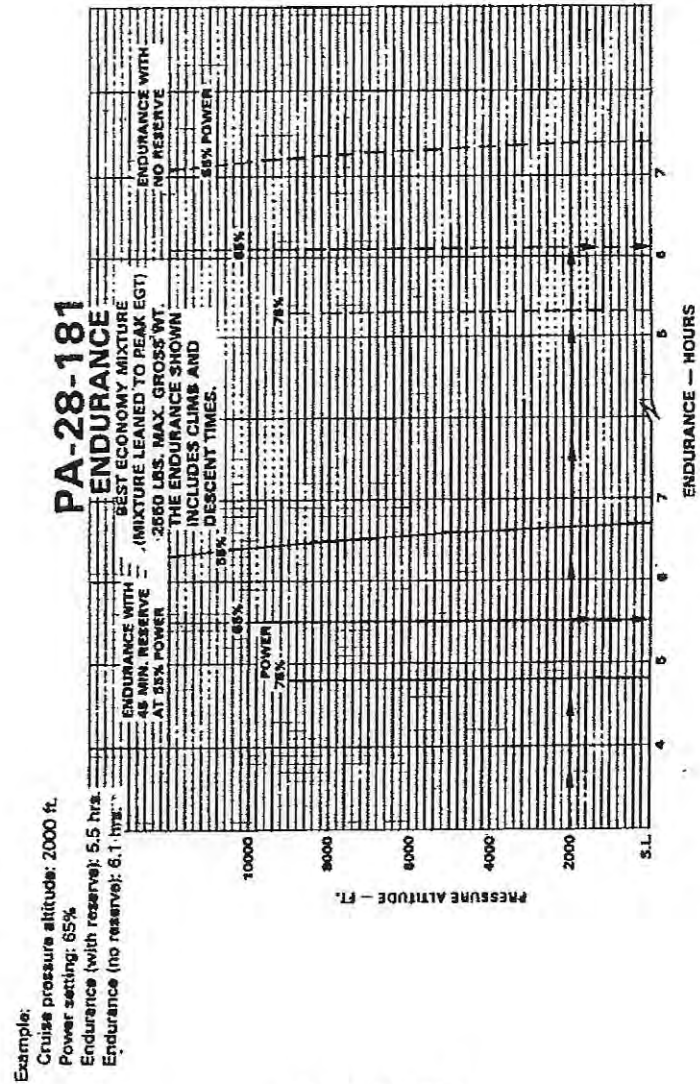
ISSUED: JULY 2, 1979
 REVISED: JULY 5, 1985

REPORT: VB-1120
 5-23



BEST ECONOMY MIXTURE RANGE

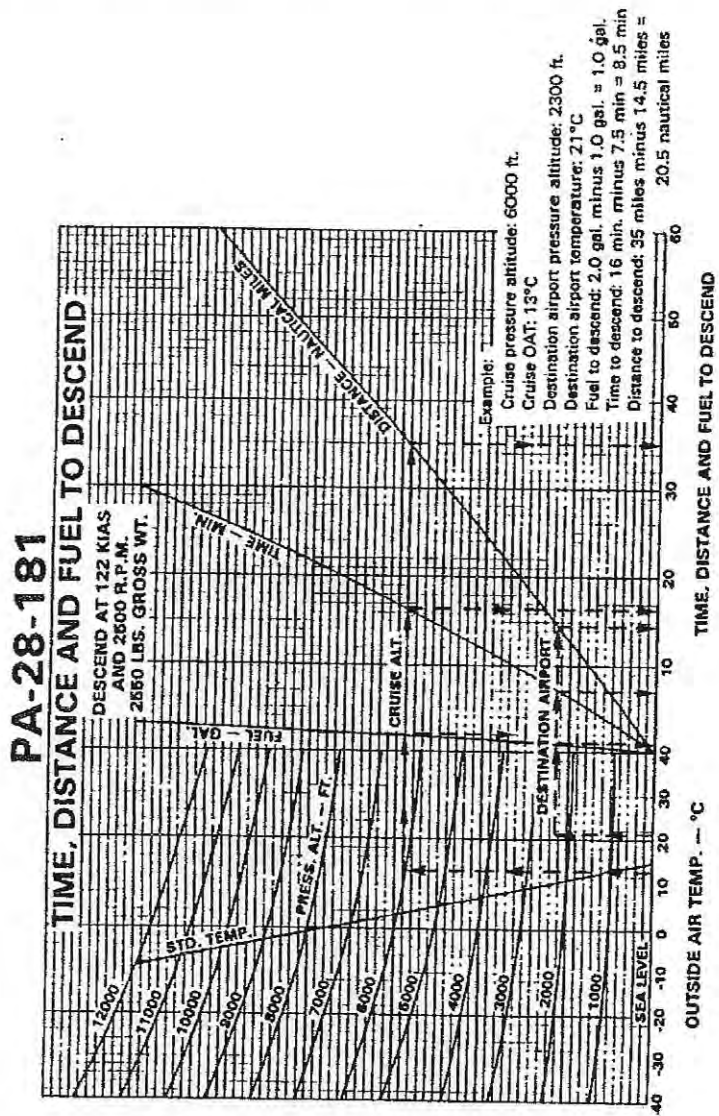
Figure 5-27



ENDURANCE
 Figure 5-29

ISSUED: JULY 2, 1979
 REVISED: JULY 5, 1985

REPORT: VB-1120
 5-25



TIME, DISTANCE AND FUEL TO DESCEND
Figure 5-31

PA-28-181

GLIDE RANGE

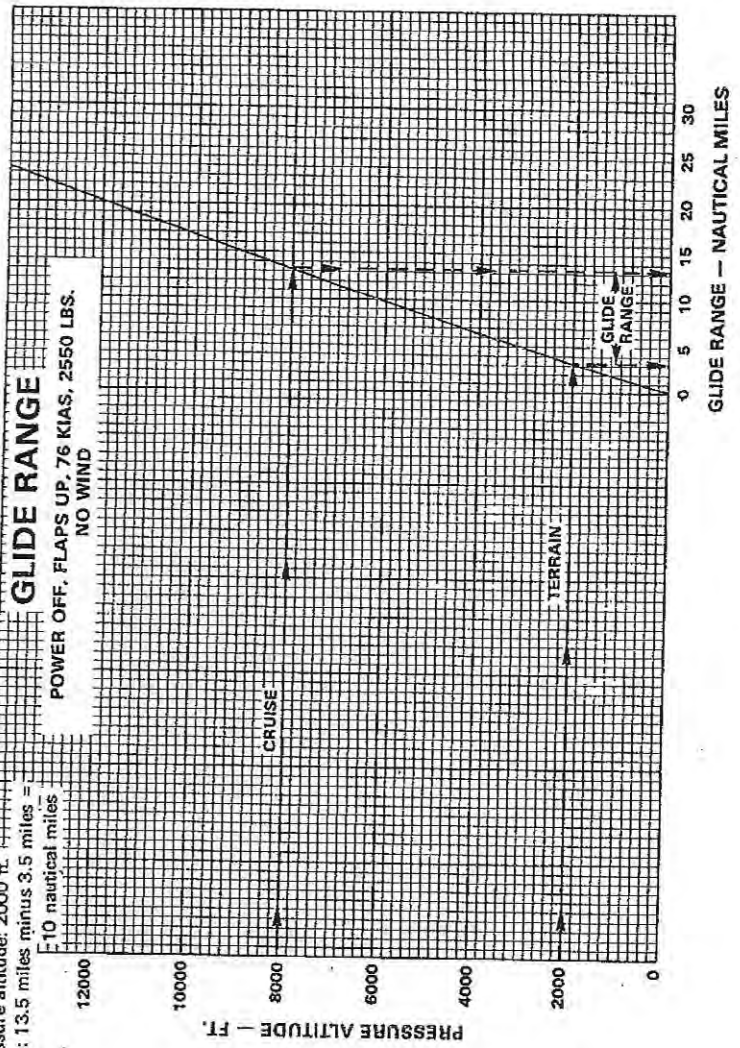
POWER OFF, FLAPS UP, 76 KIAS, 2550 LBS.
 NO WIND

Example:

Cruise pressure altitude: 8000 ft.

Terrain pressure altitude: 2000 ft.

GLIDE RANGE: 13.5 miles minus 3.5 miles = 10 nautical miles



GLIDE RANGE

Figure 5-33

ISSUED: JULY 2, 1979

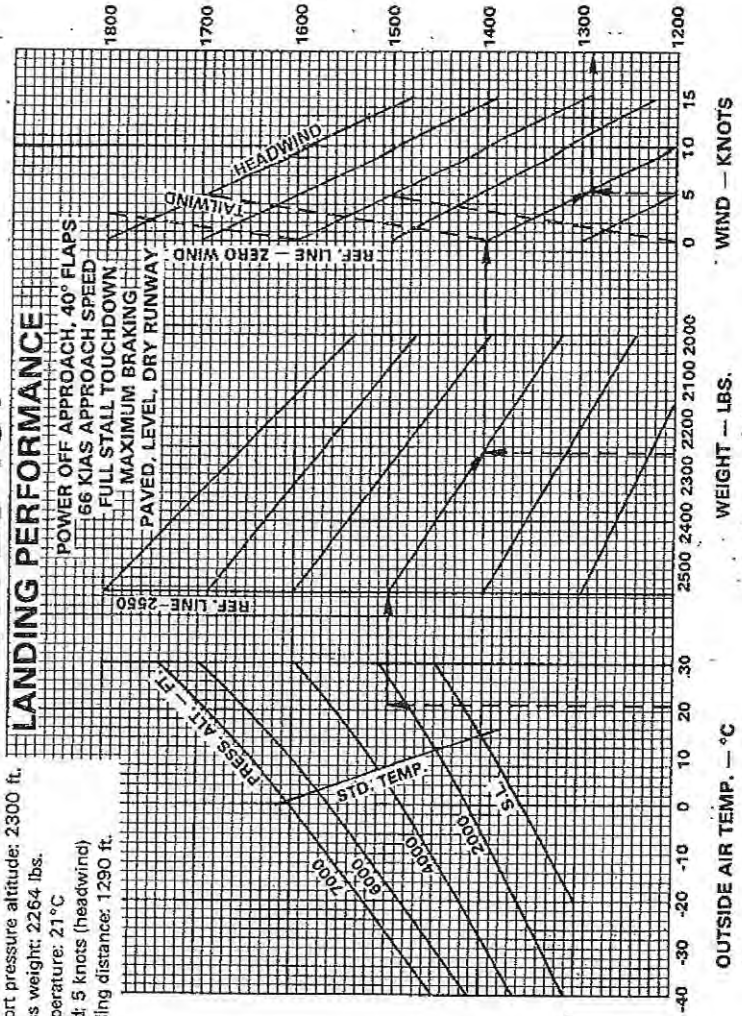
REPORT: VB-1120
 5-27

PA-28-181

LANDING PERFORMANCE

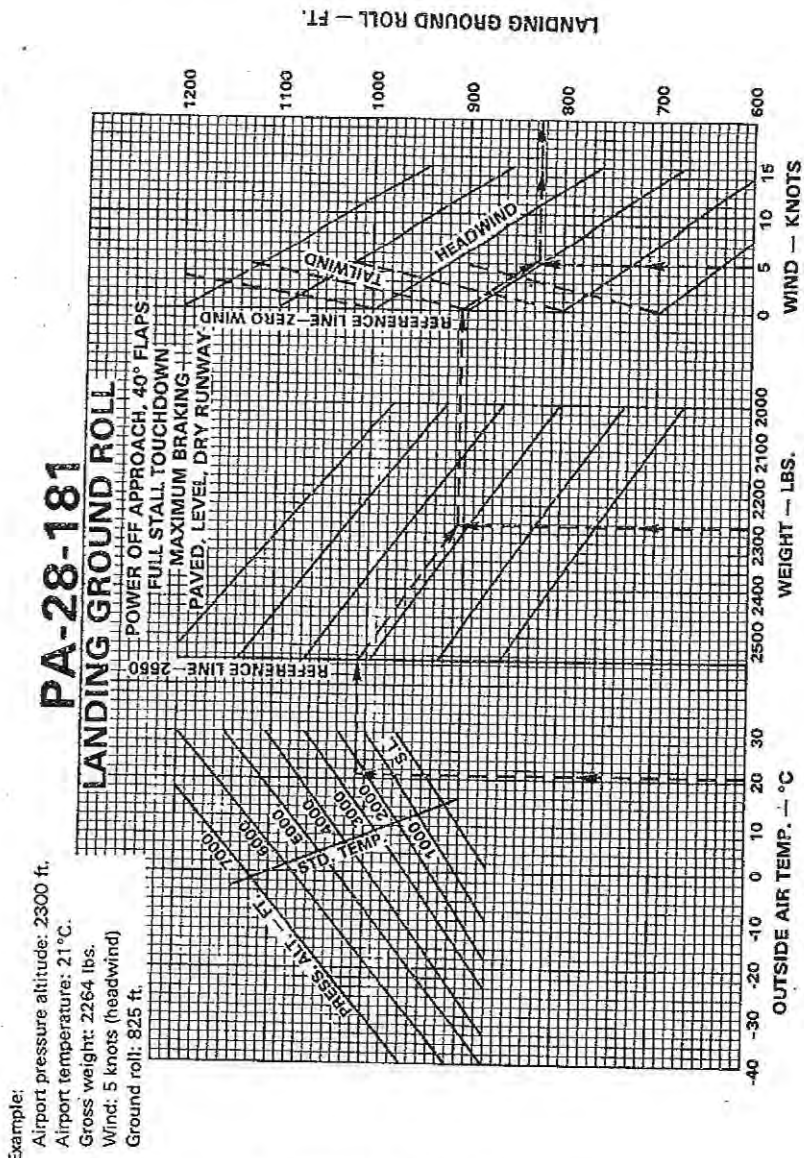
Example:

- Airport pressure altitude: 2300 ft.
- Gross weight: 2264 lbs.
- Temperature: 21°C
- Wind: 5 knots (headwind)
- Landing distance: 1290 ft.



LANDING PERFORMANCE

Figure 5-35



LANDING GROUND ROLL
Figure 5-37

ISSUED: JULY 2, 1979
REVISED: JUNE 29, 1984

REPORT: VB-1120
5-29