LOAD DATA SHEET - PAGE 1 OF 3 - AEROPLANE WEIGHT

Aeroplane Type:..... PIPER PA28-181

Registration Marking:..... **VH-NRL** Serial No: 28-8290082

ISSUE:.... **ONE**	DATE:..... 25-Jul-11	EXPIRY:..... INDEFINITE

AEROPLANE WEIGHT AND CENTRE OF GRAVITY DATA:

ITEM	WEIGHT (Kg)	ARM (mm aft of datum)	MOMENT (Kg.mm)	CABIN CONFIGURATION
EMPTY	**718.5**	**2207.0**	**1585860**	FOUR SEATS TOTAL
STANDARD CABIN CONFIGURATION				
THE FOLLOWING IMPERIAL UNITS ARE FOR USE WITH THE PILOTS HANDBOOK SECTION SIX				
	(lb)	(in)	(in.lb)	
EMPTY	**1584.1**	**86.89**	**137647**	FOUR SEATS TOTAL

NOTE: The above empty weights include:-

EMPTY - unusable fuel and full oil

AeroWeigh Pty Ltd
BRUCE RUSSOLO
AUTHORITY NUMBER AN-9
PHONE: 9755 7101 FAX: 9755 7126
MOBILE: 0412 58 5551

LOAD DATA SHEET - PAGE 3 OF 3 - LOADING SYSTEM

Aeroplane Type:..... PIPER PA28-181

Registration Marking:..... **VH-NRL** Serial No: 28-8290082

ISSUE:.... ONE	DATE:..... 25.07.11

The following is valid only for the Empty Weight specified in Page 1 of 3 Aeroplane Weight dated.. 25.07.11 and is based on calculations using Occupant Weights of 60 to 90 Kg each.

A...NORMAL CATEGORY OPERATIONS:-

1. OCCUPANTS:-

Load Front to Rear (i.e. Front seats first)
Load Heaviest Passenger in front row

2. BAGGAGE COMPARTMENT LIMITATIONS:-

Number of Occupants	Maximum Baggage
One(pilot)	90.7 Kg
Two	90.7 Kg
Three	69.0 Kg
Four	25.5 Kg

3. FUEL:-

Fuel is limited only by All Up Weight

MAXIMUM TAKE-OFF WEIGHT.....1157 Kg

B...UTILITY CATEGORY OPERATIONS:-

No limitations except Utility Category all up weight limit

MAXIMUM TAKE-OFF WEIGHT.....966 Kg

NOTE: In utility category operations, the baggage compartment must be empty and the rear seat unoccupied.

NOTE: If a full Loading Check is required, refer to Instructions and Charts in the Pilots Handbook Section Six.

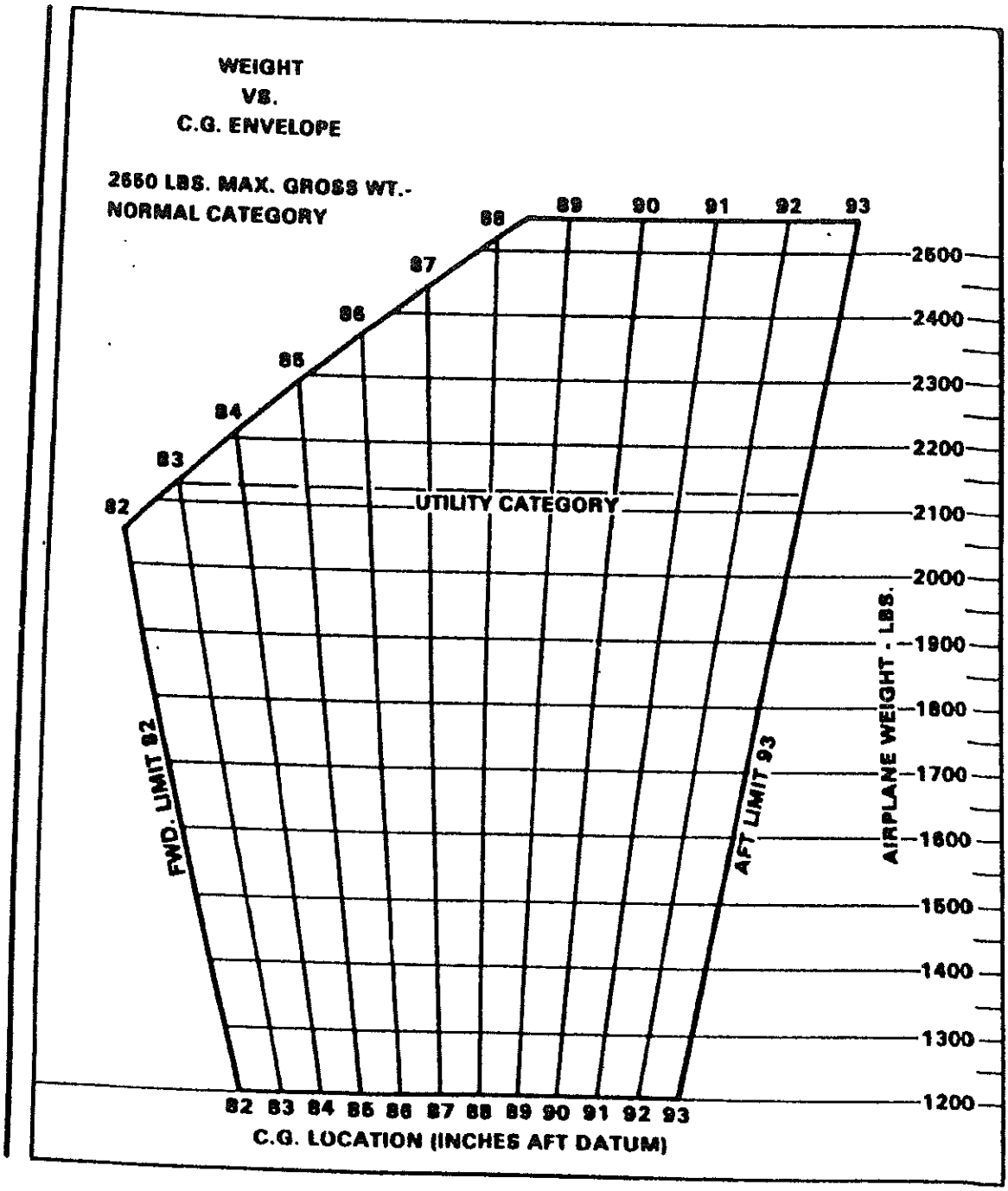
AeroWeigh Pty. Ltd.
BRUCE [illegible]SOLD
AUTHORITY NUMBER AN-9
PHONE: 9755 7104 FAX: 9755 7126
MOBILE: 0412 58 5551

	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)			

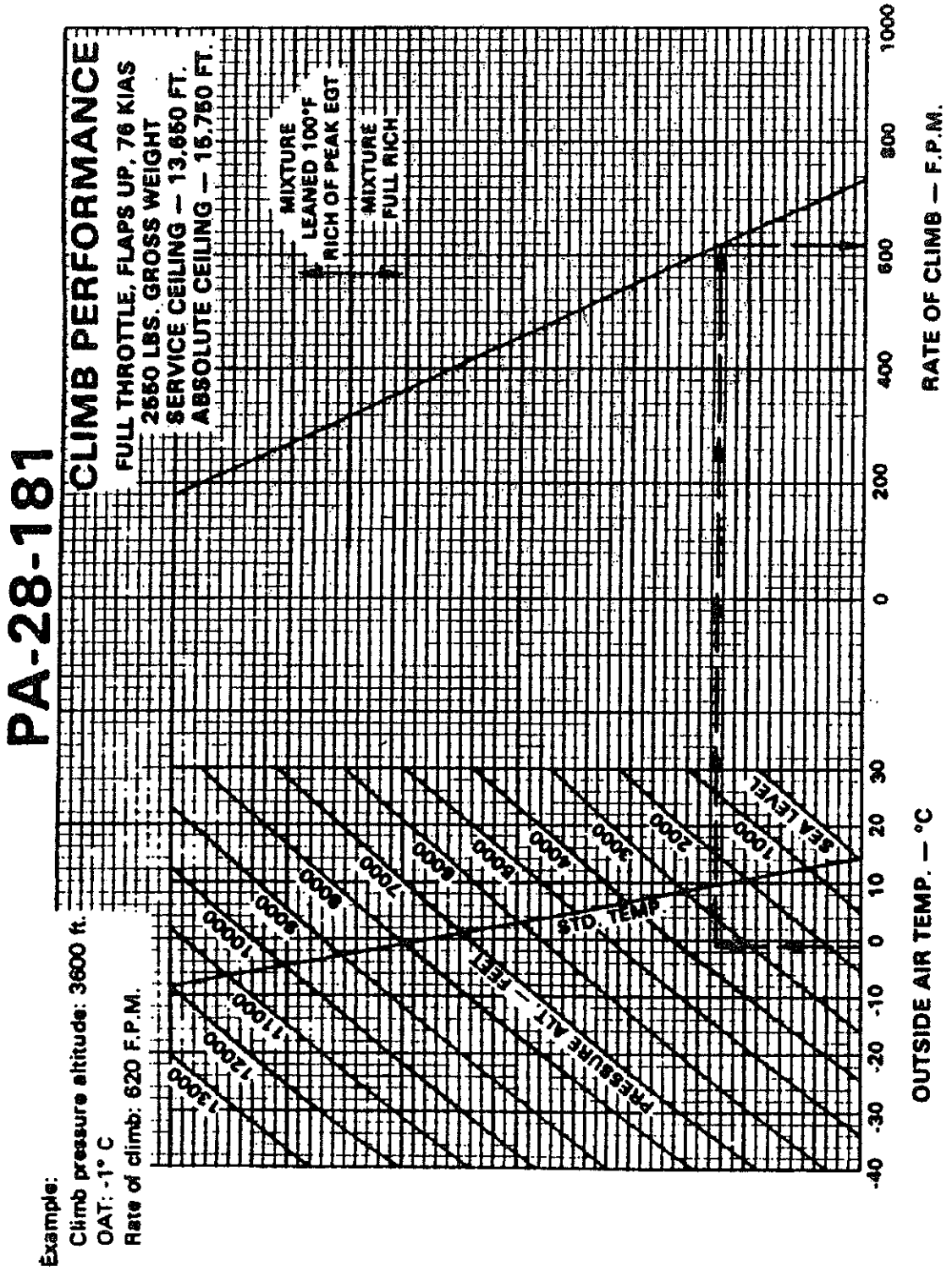
Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-5). If the airplane has been altered, refer to the Weight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

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

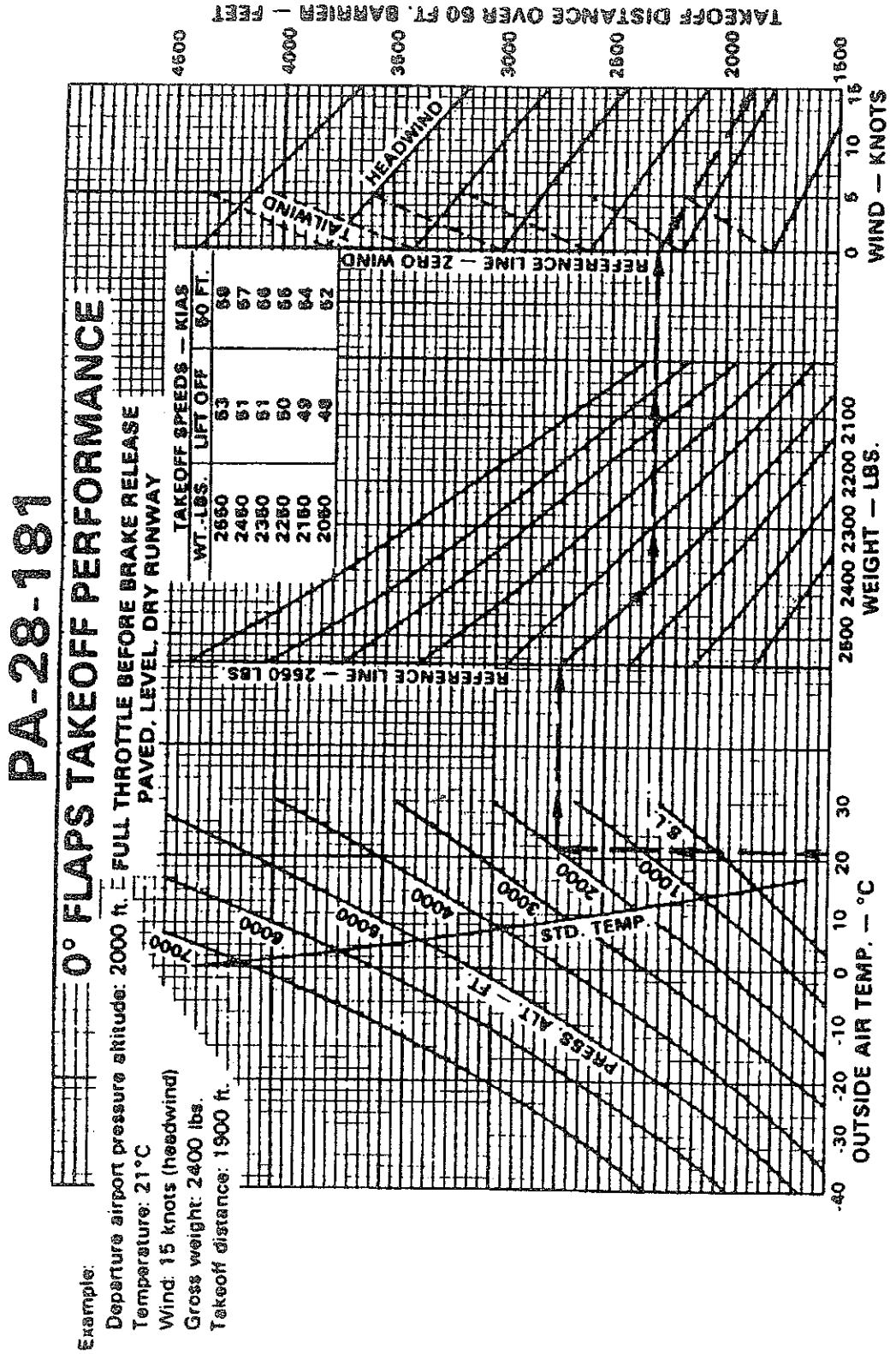
WEIGHT AND BALANCE LOADING FORM
Figure 6-11



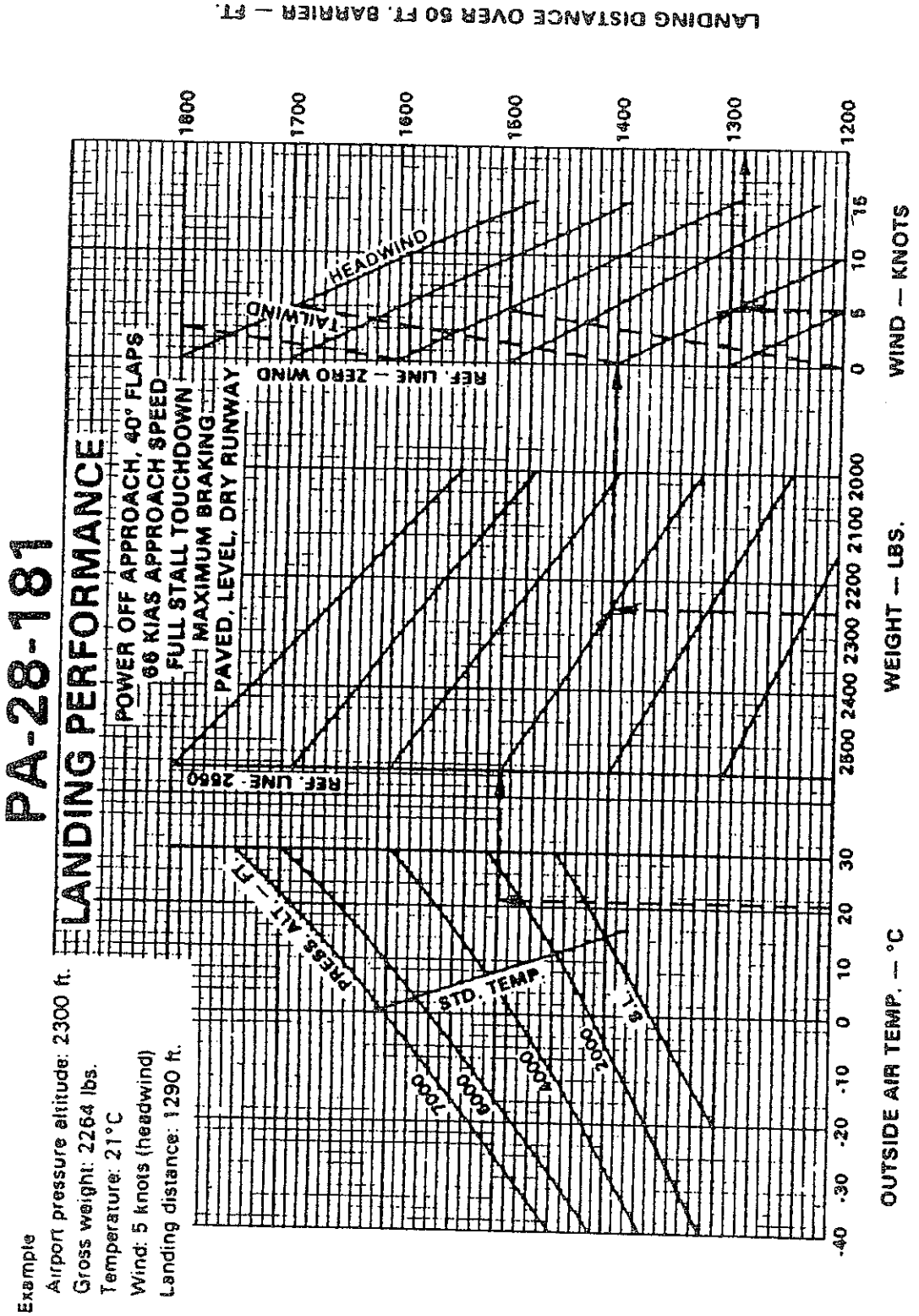
C.G. RANGE AND WEIGHT
Figure 6-15



CLIMB PERFORMANCE
Figure 5-15



FLAPS UP TAKEOFF PERFORMANCE
Figure 5-7



LANDING PERFORMANCE
Figure 5-35

Climb Gradients

1 Take off climb performance (20.7.4 / 7.1)

In the take-off configuration with landing gear extended, an aeroplane must have the ability to achieve a climb gradient of 6% at takeoff safety speed (TOSS), without ground effect, and with all engines operating at take-off power.

2 En-route climb performance (20.7.4 / 8.3)

Single-engined aeroplanes must have the ability to climb at a gradient of 4.5% at an airspeed not less than 1.2Vs at all heights up to 5000ft in standard atmospheric conditions with the engine operating at maximum continuous power, undercarriage (if retractable)and flaps retracted.

3 Landing Climb performance (20.7.4 / 9.1)

In the landing configuration with all engines operating at take-off power an aeroplane must have the ability to climb at a gradient of 3.2% in standard atmospheric conditions at a speed not exceeding 1.3Vs

Formula

RoC = ((GS x 6080) / 60) x (CG / 100)

Or

$$CG = \frac{ROC}{(G.S \times 6080) / 60}$$