

BOB TAIT'S AVIATION THEORY SCHOOL

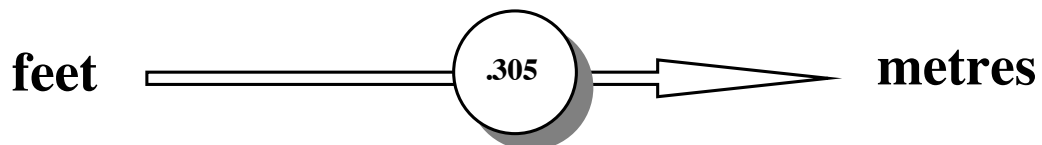
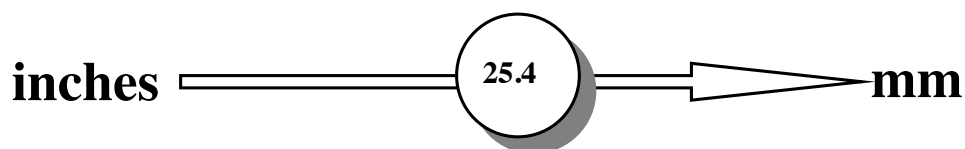
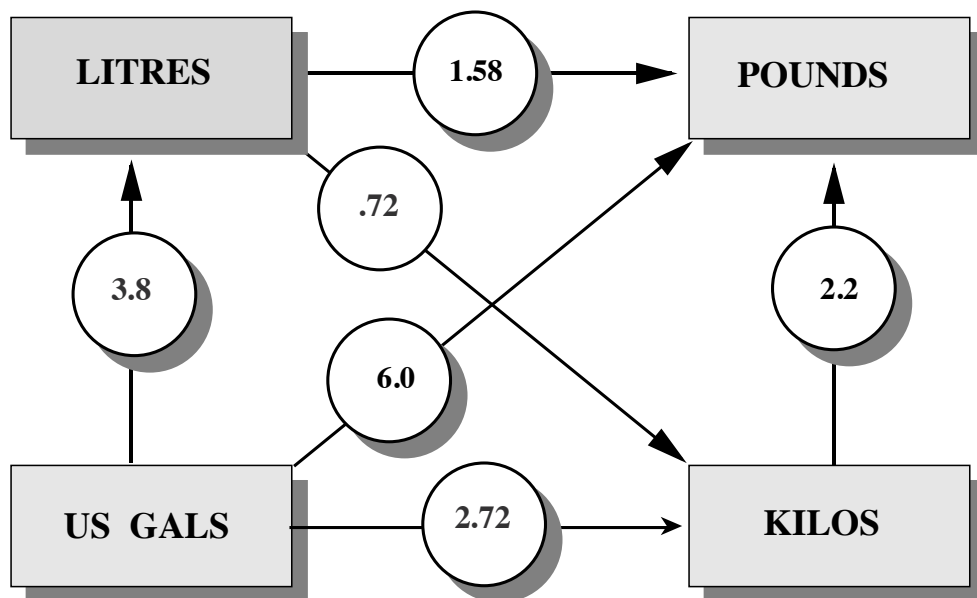
**RPL / PPL VOLUME 1
RECREATIONAL PILOT LICENCE [RPL]**

SUPPLEMENT



Piper Pacer PA22/20

CONVERSION FACTORS



WHEN FOLLOWING THE ARROW - MULTIPLY

WHEN BACKTRACKING THE ARROW - DIVIDE

LOADING SYSTEM Configuration 4 seats

Instructions for use of the loading system

To check the loading of the aircraft before take-off, calculate the total weight and total moments as shown in the example below.

Plot the total weight and moment on the "Centre of Gravity Envelope" chart, given on Page 3, and if the intersection point is within the envelope, the loading is acceptable.

AIRCRAFT LIMITATIONS

Maximum take-off weight

Normal category	1000 kg	[2200 lbs]
Utility category	841 kg	[1850 lbs]
Maximum baggage compartment load	53 kg	[120 lbs]

Notes:

- 1 This aircraft is fitted with standard tanks. [37 US gallons @ 6 lbs /gallon]
- 2 Empty weight includes unusable fuel and undrainable oil.
- 3 Obtain Moment/1000 inch pounds from the loading graph on Page 3.

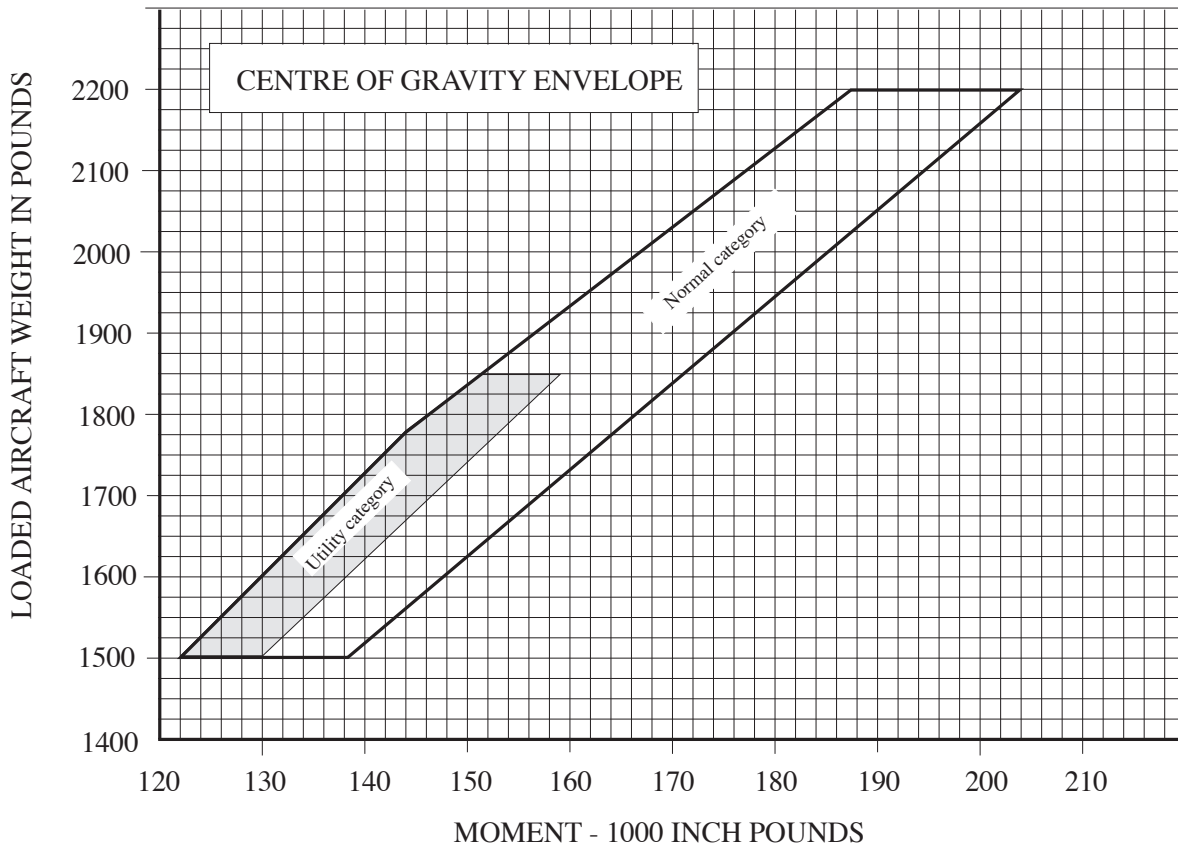
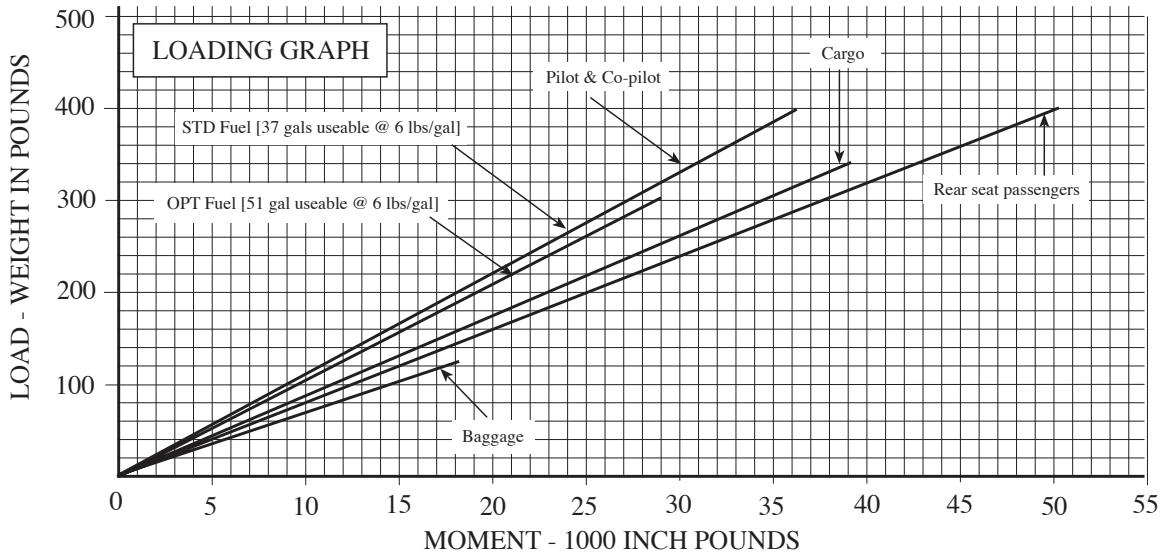
EXAMPLE

	WEIGHT [lbs]	ARM [ins]	MOMENT
1000/in lbs			
Empty weight	1260	80	100.80
oil	15	32	.48
Fuel [141 litres]	222	91	20.20
pilot and co-pilot	320	91	29.12
Rear seat passengers	350	126	44.10
Baggage	25	151	3.78
Take-off weight	2192		198.48

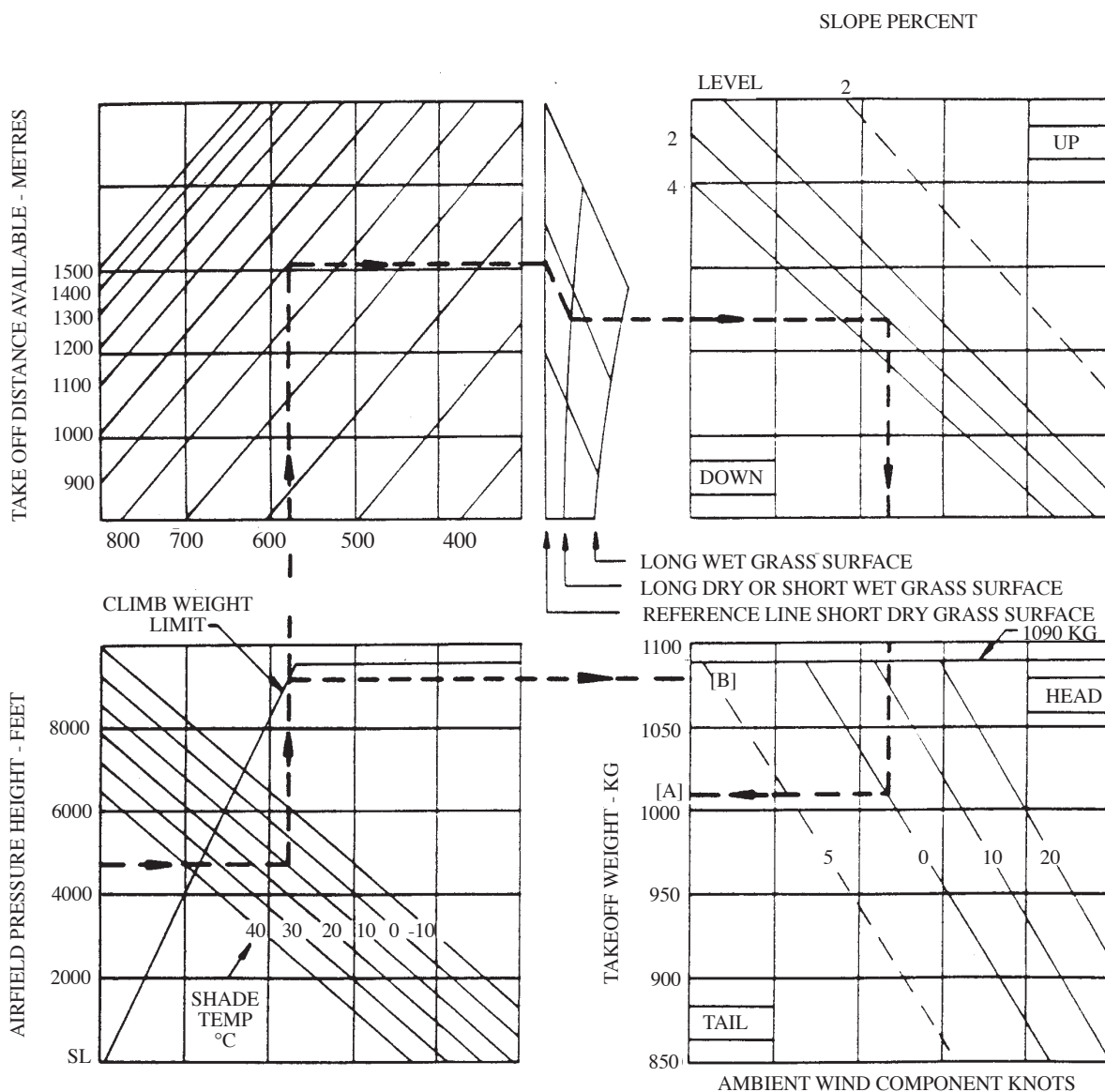
Check C. G. is within the envelope given on page opposite

LOADING SYSTEM BRAVO

The loading graph below converts weights in each location to a corresponding moment index. However in practice [or in the examination] it is actually both faster and much more accurate to multiply the weight by the location arm in the load sheet example at left and divide the result by 1000. The load sheet example will be provided in the examination.



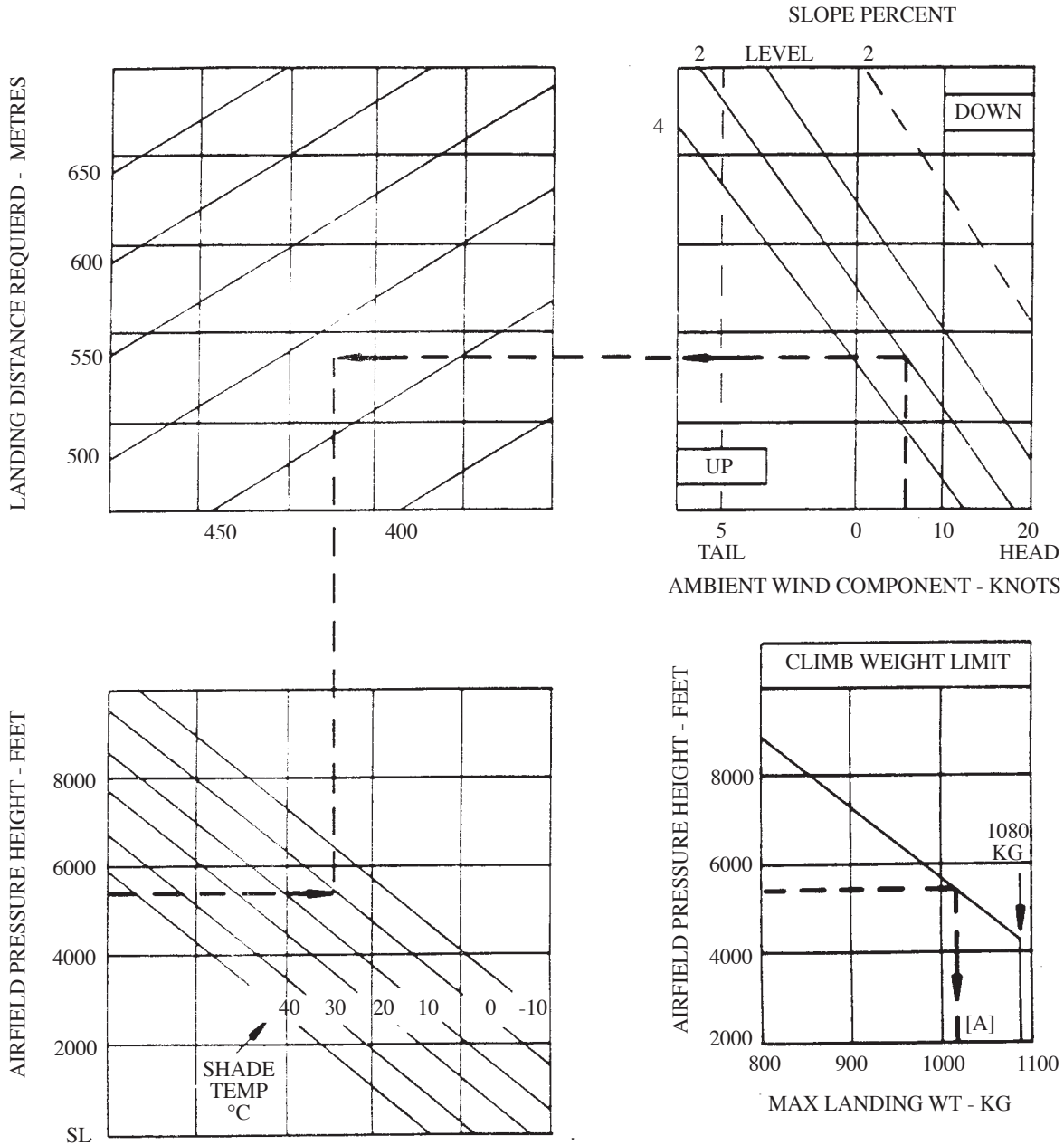
TAKE-OFF CHART



- NOTES:
- [1] THE GROSS WEIGHT AT TAKEOFF SHALL NOT EXCEED THE LESSER OF [A] AND [B].
 - [2] MAXIMUM TAKEOFF WEIGHT = 1090 KG

POWER TO BE USED	FULL THROTTLE
FLAP SETTING	10 DEGREES
TAKEOFF SAFETY SPEED	60 KIAS
TAKEOFF DISTANCE FACTOR	1.15

LANDING CHART



NOTES:

- [1] THE GROSS WEIGHT AT LANDING SHALL NOT EXCEED [A]
- [2] LANDING DISTANCE REQUIRED DOES NOT VARY SIGNIFICANTLY WITH WEIGHT

FLAP SETTING	30 DEGREES
APPROACH SPEED	58 KIAS
LANDING DISTANCE FACTOR	1.15

