

Performance & Loading

AIR
TRANSPORT
PILOT
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AEROPLANE

FLIGHT MANUAL EXTRACTS

WRITTEN BY
MATT RAYSON



online practice exams



flightcrewexams.com.au



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Operational Restrictions

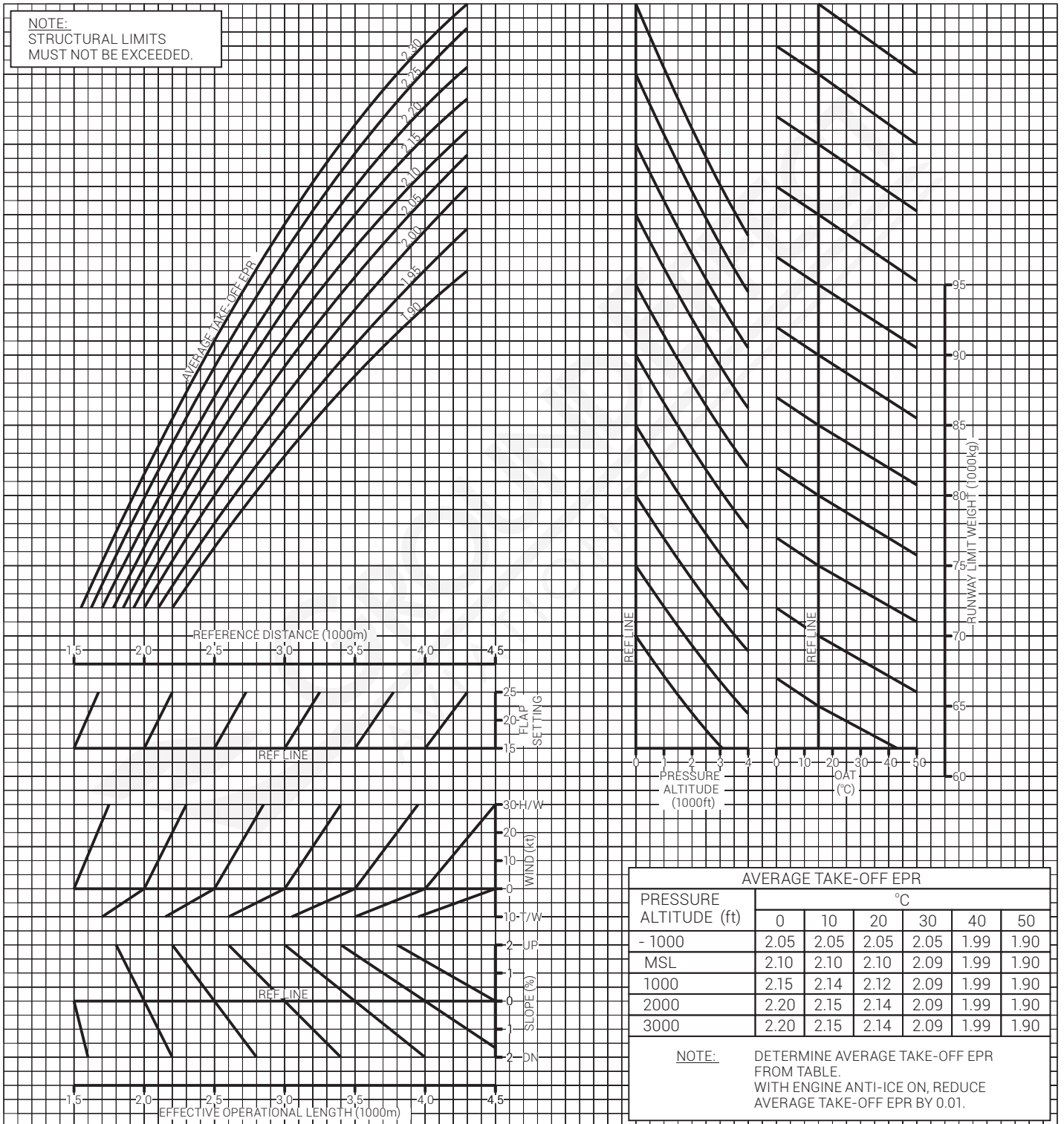
Candidates should refer to the CASA Weight and Balance Training and Examination Workbook and the Boeing 727 Performance and Operating Handbook as the primary references when answering practice exam questions. If a performance chart is required to answer a question, the charts published in this extract shall be used. These performance charts are in no way for operational use. All rights reserved.

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BOEING 727-200

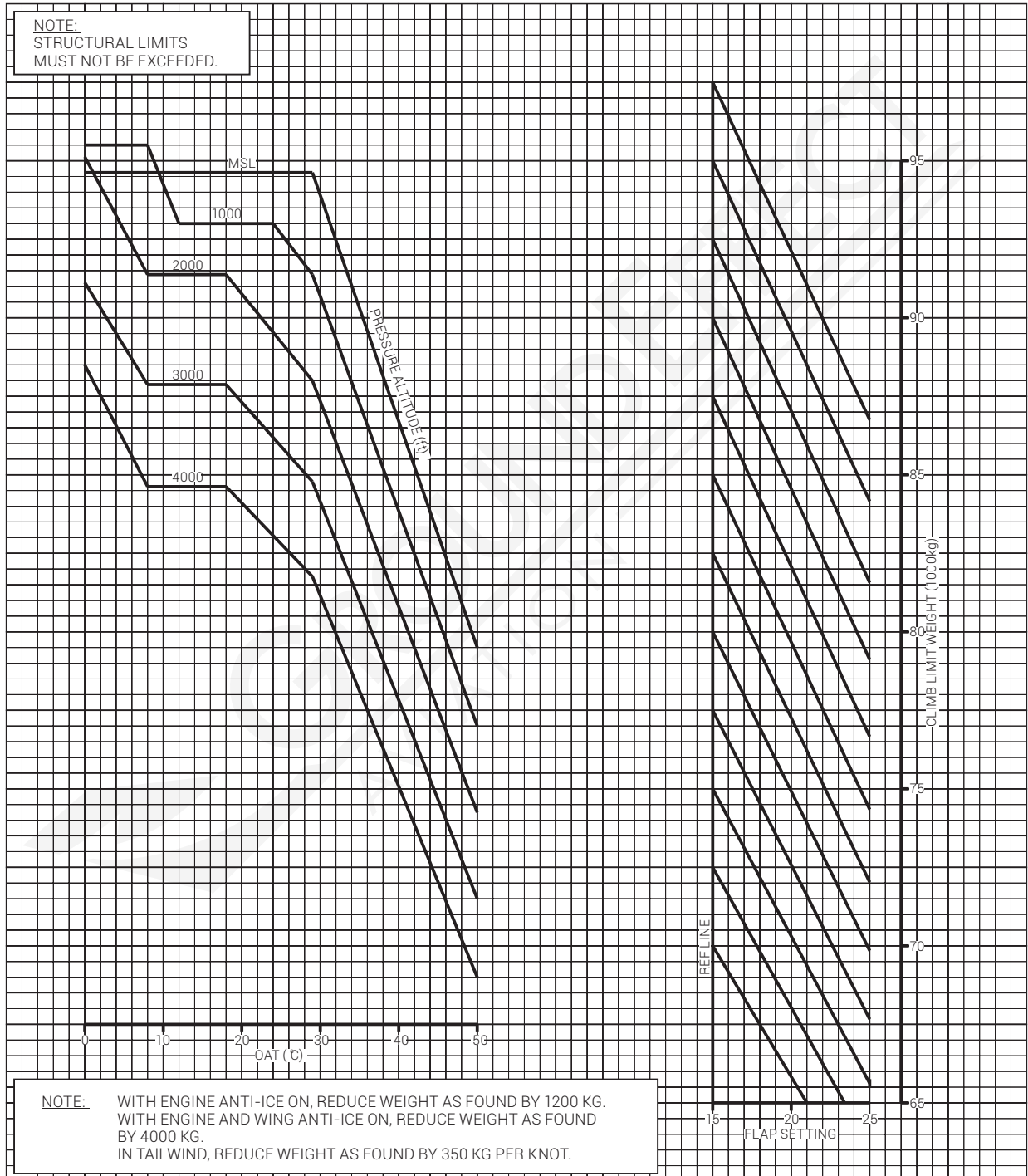
FLIGHT MANUAL EXTRACT



TAKE-OFF RUNWAY LIMITATION

BOEING 727-200

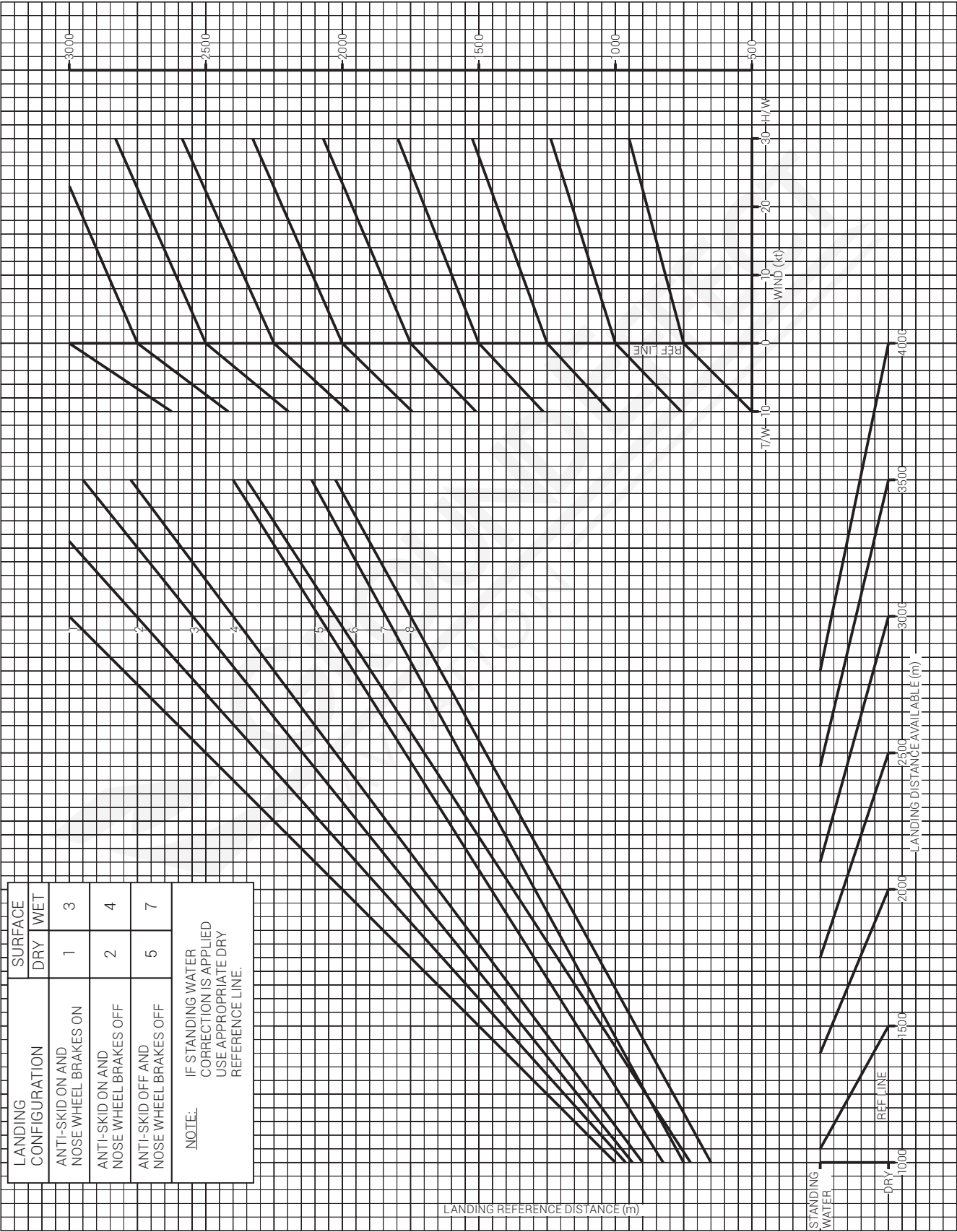
FLIGHT MANUAL EXTRACT



TAKE-OFF CLIMB LIMITATION

Lined paper template with horizontal ruling lines. A large, faint watermark reading "GROUND EFFECT AVIATION" is oriented diagonally across the page.

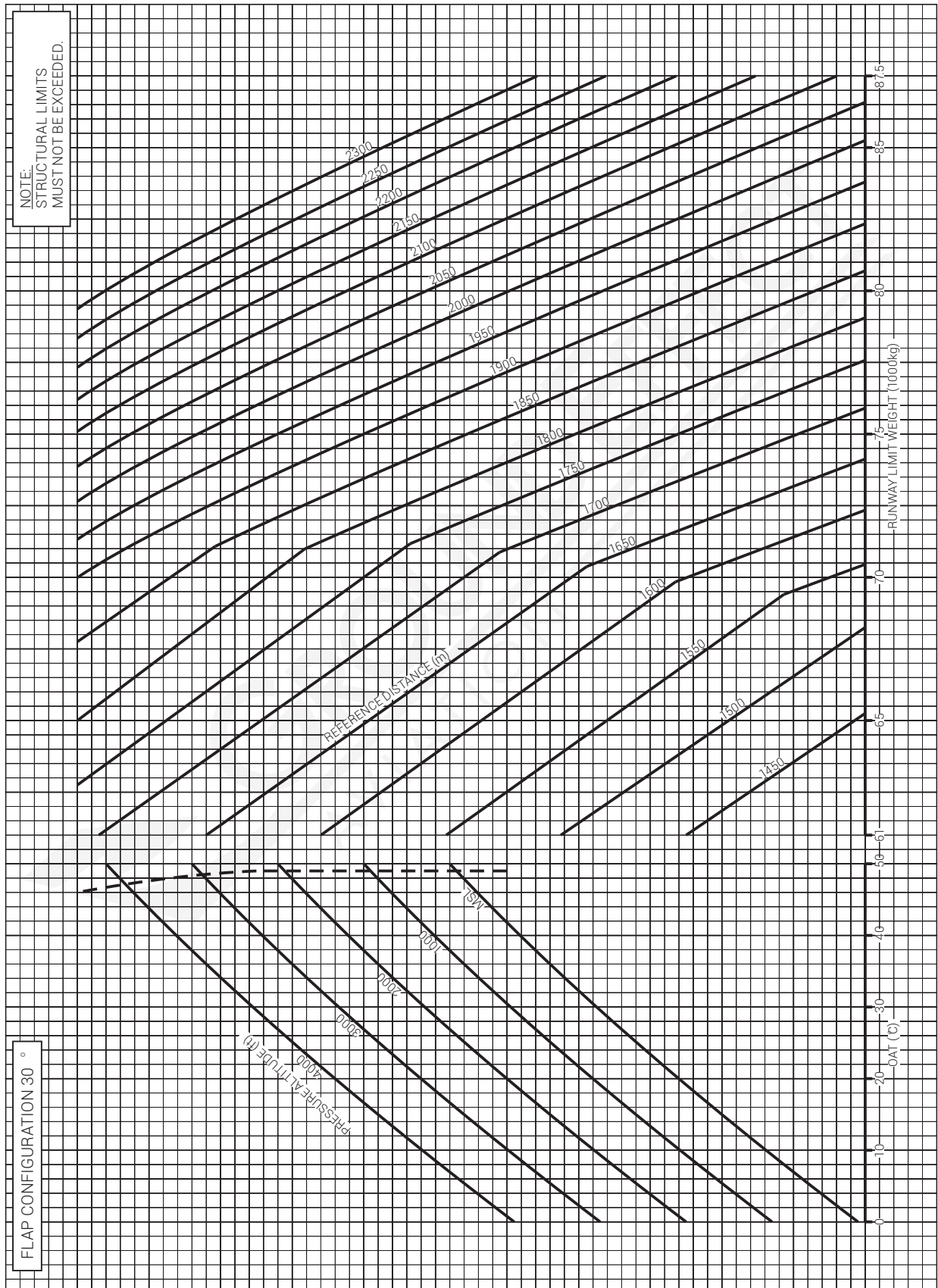
BOEING 727-200 FLIGHT MANUAL EXTRACT



LANDING REFERENCE DISTANCE

BOEING 727-200

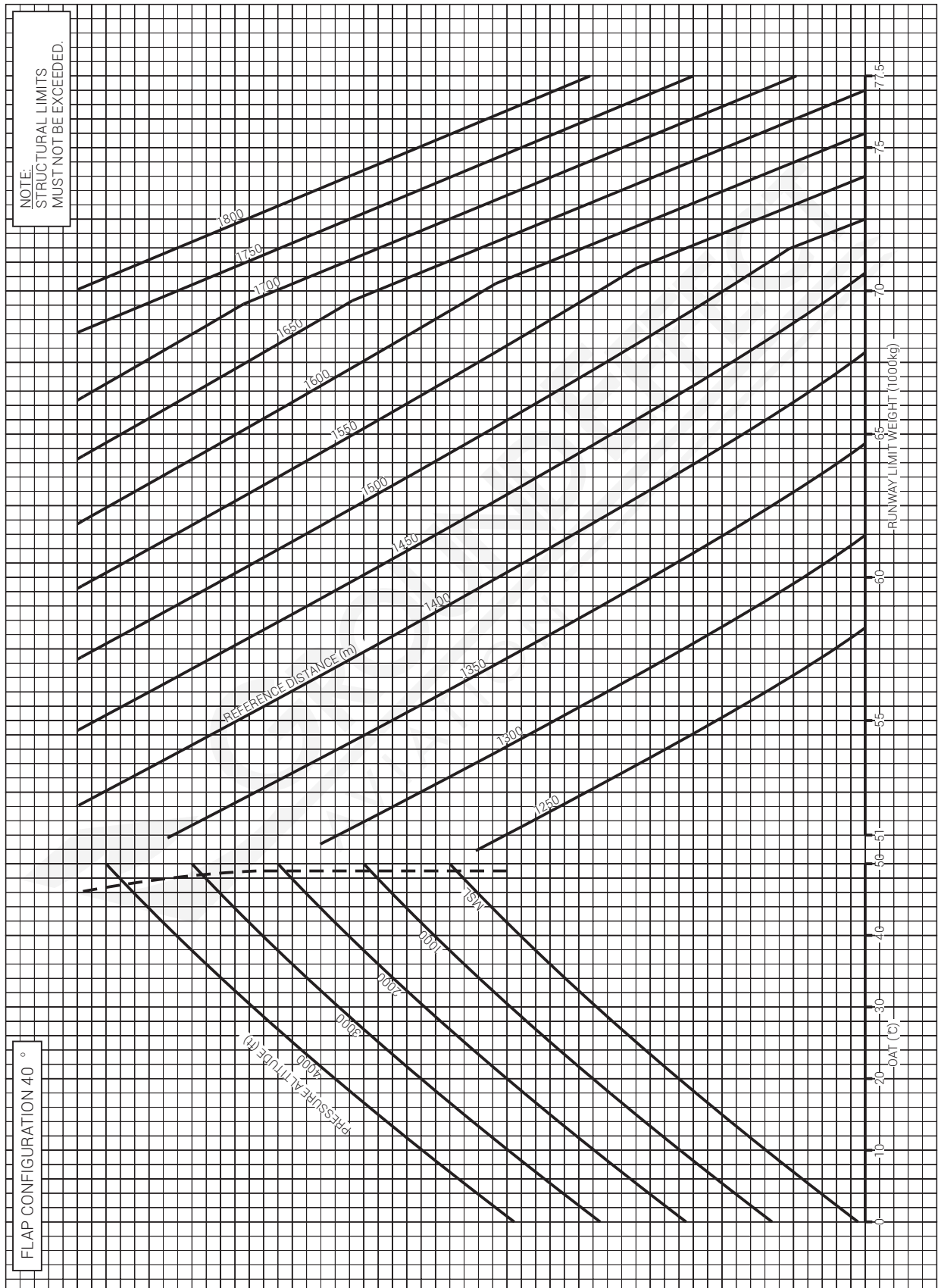
FLIGHT MANUAL EXTRACT



LANDING RUNWAY LIMITATION FLAP 30 °

BOEING 727-200

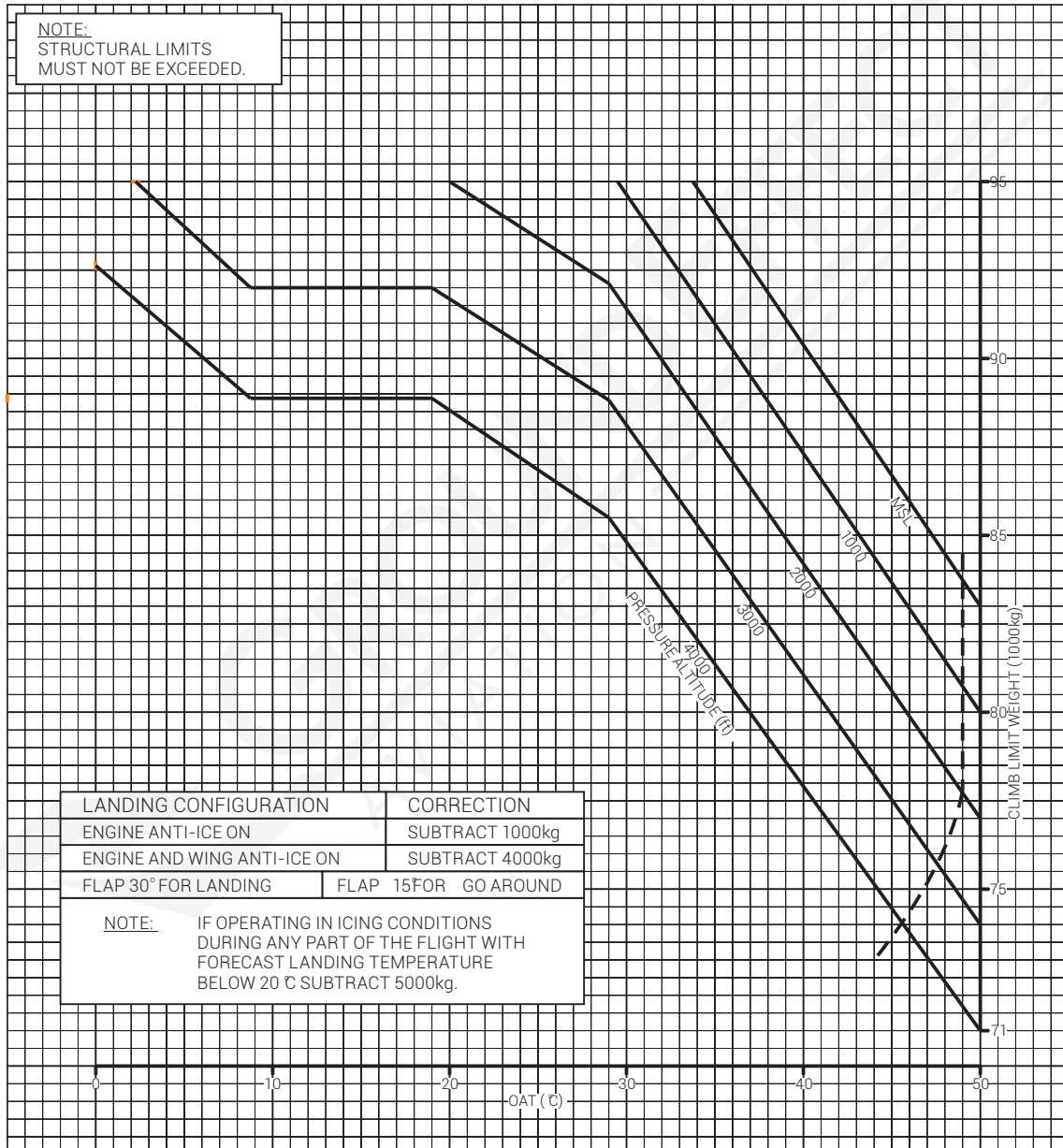
FLIGHT MANUAL EXTRACT



LANDING RUNWAY LIMITATION FLAP 40 °

BOEING 727-200

FLIGHT MANUAL EXTRACT

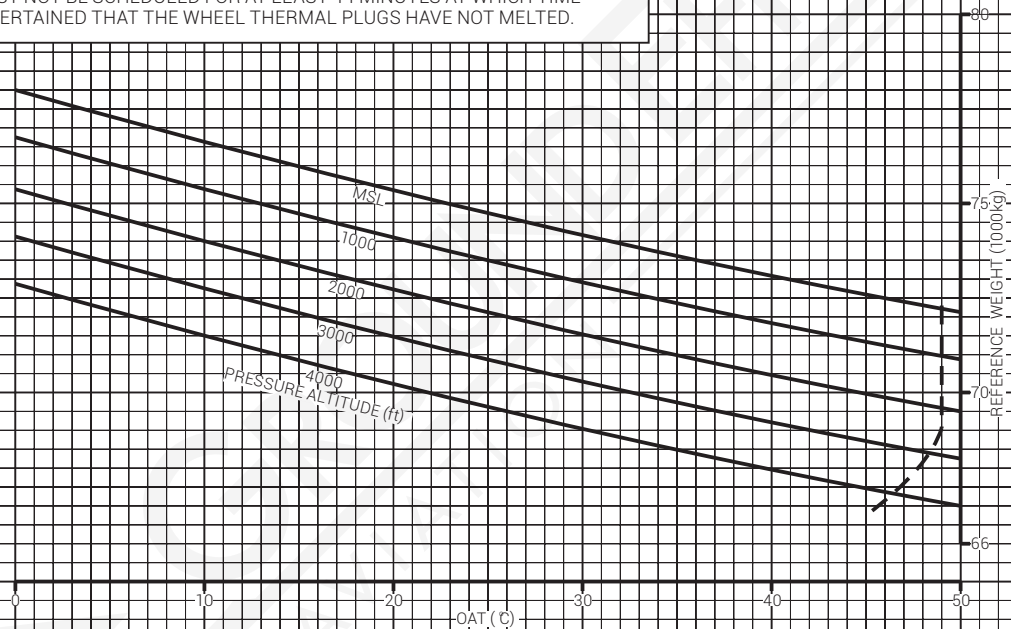


LANDING CLIMB LIMITATION FLAP 30 °

BOEING 727-200

FLIGHT MANUAL EXTRACT

NOTE:
AFTER LANDING AT A WEIGHT IN EXCESS OF THAT EXTRACTED FROM THIS CHART
A TAKE-OFF MUST NOT BE SCHEDULED FOR AT LEAST 44 MINUTES AT WHICH TIME
IT MUST BE ASCERTAINED THAT THE WHEEL THERMAL PLUGS HAVE NOT MELTED.



TO OBTAIN MAXIMUM QUICK TURN AROUND WEIGHT
CORRECT REFERENCE WEIGHT AS FOLLOWS:

- | | | |
|----|--------------------|----------------------------------------------------|
| 1. | SUBTRACT
OR ADD | 90kg PER 0.1% DOWN SLOPE
80kg PER 0.1% UP SLOPE |
| 2. | SUBTRACT
OR ADD | 640kg PER 1 kt TAILWIND
180kg PER 1 kt HEADWIND |
| 3. | SUBTRACT | 2500kg IF NOSE GEAR BRAKES ARE OFF |

LANDING MAXIMUM QUICK TURN AROUND WEIGHT FLAP 30 °

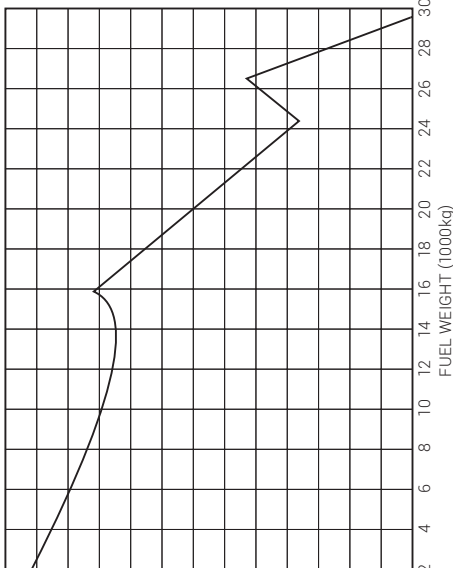
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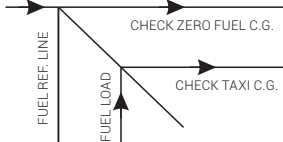
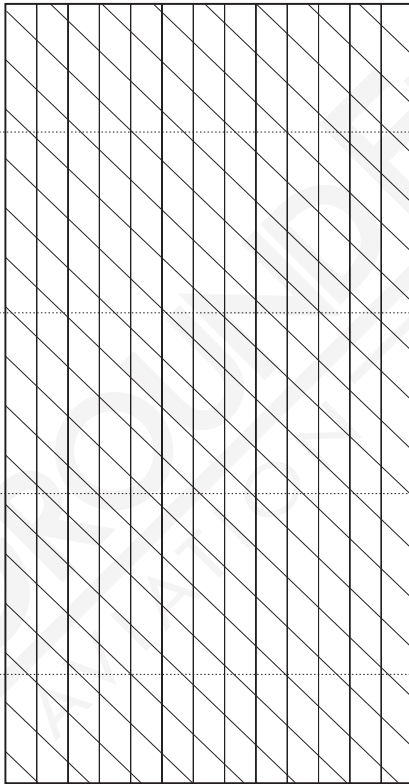
NOTE:
THE CENTRE OF GRAVITY MUST
BE CHECKED AT BOTH:
(A) ZERO FUEL WEIGHT
(B) TAXI WEIGHT

LOAD ADJUSTMENTS:
THE LAST MINUTE ADJUSTMENT
LINES LOW ON THE FUEL
PASSENGERS WITHOUT CHANGING
THE STABILISER TRIM SETTING.
THE MAXIMUM PERMITTED IS
DETERMINED BY THE DOTTED
LINES THAT ENCLOSE BOTH THE
TAXI AND ZERO FUEL CENTRE OF
GRAVITY POSITIONS.

FUEL LOADING CURVE



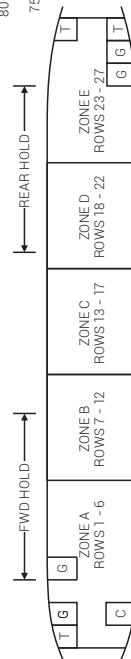
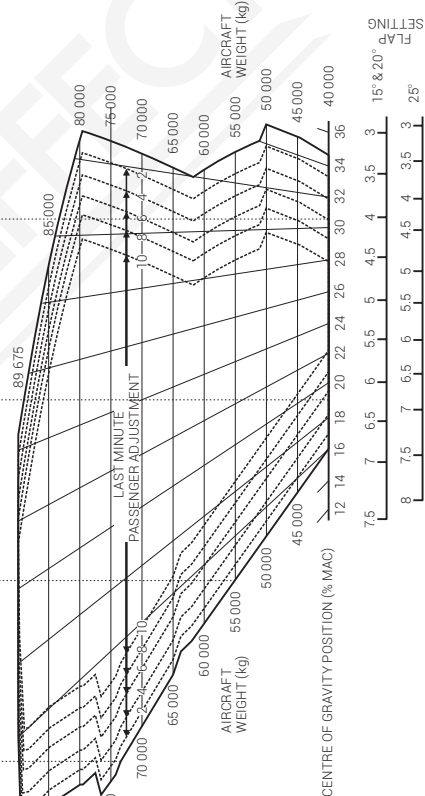
FUEL REFERENCE LINE



ADJ. BASIC INDEX	I.U.	ADJ. BASIC WT	ALL WT IN KG
ROWS 1 - 6		ROWS 1 - 6	
ROWS 7 - 12		ROWS 7 - 12	
ROWS 13 - 17		ROWS 13 - 17	
ROWS 18 - 22		ROWS 18 - 22	
ROWS 23 - 27		ROWS 23 - 27	
FWD COMP 1		FWD COMP 1	
FWD COMP 2		FWD COMP 2	
REAR COMP 4		REAR COMP 4	
REAR COMP 5		REAR COMP 5	
EXTRA CREW		EXTRA CREW	
		ZERO FUEL WT	
		+ FUEL LOAD	
		TAXI WT	
		- TAXI FUEL	
		TAKE-OFF WT	
		- TRIP FUEL	
		LANDING WT	

PAYLOAD ADJ	
FINAL ZERO FUEL	
FINAL TAKE-OFF	
FINAL LANDING	

I am satisfied that this aircraft has been loaded in accordance with company requirements	NUMBER OF PASS	
	INITIAL	FINAL
SIGNED	CAPTAIN	
PREPARED BY	CPT/5	
MAXIMUM ALLOWABLE TAKE-OFF WEIGHT (kg)		
% MAC	VH -	
FLAP SETTING	FLIGHT NO	
STAB SETTING	FROM	
DATE	TO	



ITEM	WEIGHT	INDEX
BASIC AIRCRAFT		
ADJ BASIC AIRCRAFT		

BOEING 727-200

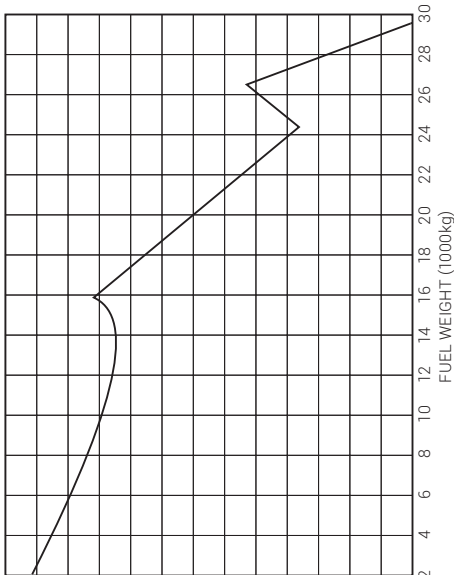
LOAD AND TRIM SHEET

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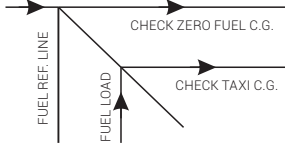
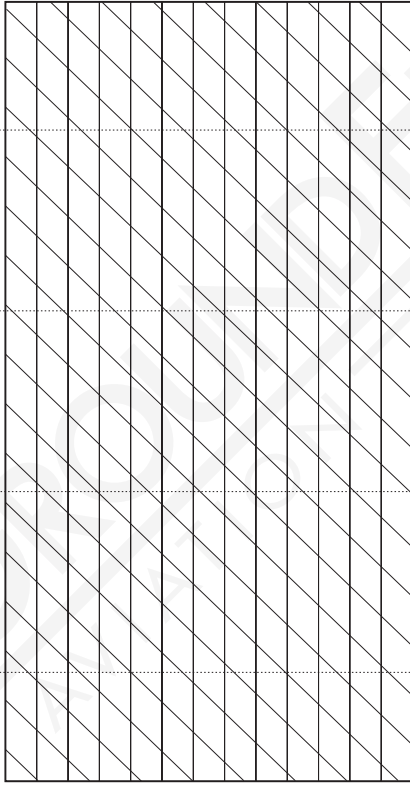
NOTE:
THE CENTRE OF GRAVITY MUST
BE CHECKED AT BOTH:
(A) ZERO FUEL WEIGHT
(B) TAXI WEIGHT

LOAD ADJUSTMENTS:
THE LAST MINUTE ADJUSTMENT
LINES ONLY FOR USE FOR
PASSENGERS WITHOUT CHANGING
THE STABILISER TRIM SETTING.
THE MAXIMUM PERMITTED IS
DETERMINED BY THE DOTTED
LINES THAT ENCLOSE BOTH THE
TAXI AND ZERO FUEL CENTRE OF
GRAVITY POSITIONS.

FUEL LOADING CURVE



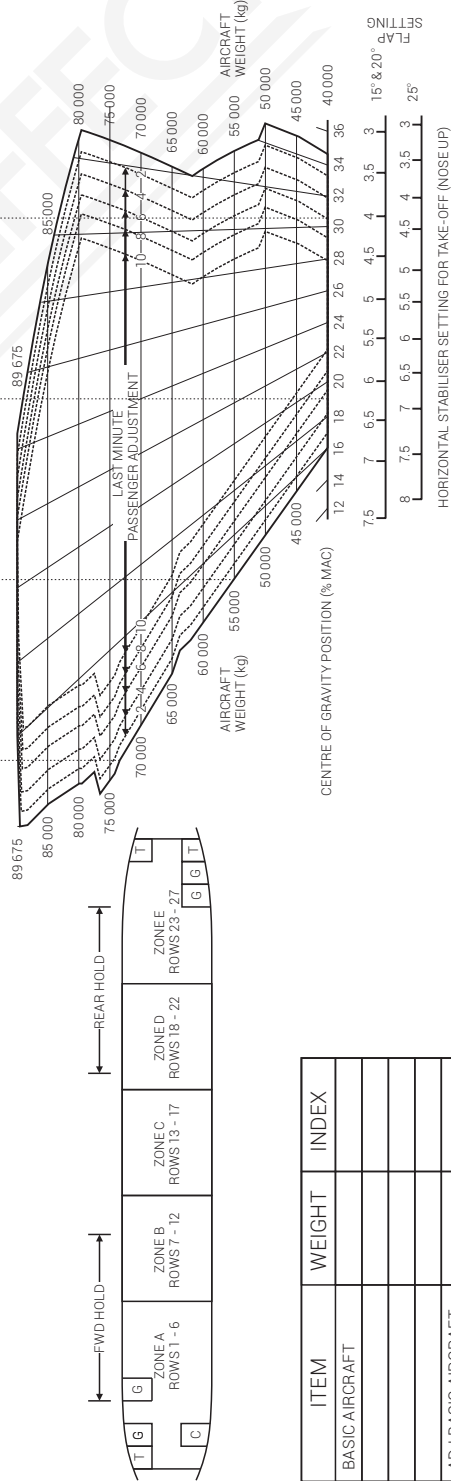
FUEL REFERENCE LINE



ADJ. BASIC INDEX	I.U.	ADJ. BASIC WT	ALL WT IN KG
ROWS 1 - 6	10 PASS	ROWS 1 - 6	
ROWS 7 - 12	10 PASS	ROWS 7 - 12	
ROWS 13 - 17	10 PASS	ROWS 13 - 17	
ROWS 18 - 22	10 PASS	ROWS 18 - 22	
ROWS 23 - 27	10 PASS	ROWS 23 - 27	
FWD COMP 1	1000 kg	FWD COMP 1	MAX 2273
FWD COMP 2	1000 kg	FWD COMP 2	MAX 3005
REAR COMP 4	1000 kg	REAR COMP 4	MAX 827
REAR COMP 5	1000 kg	REAR COMP 5	MAX 1801
EXTRA CREW	1 EXTRA CREW	EXTRA CREW	
		ZERO FUEL WT	MAX 63 502
		+ FUEL LOAD	
		TAXI WT	MAX 89 675
		- TAXI FUEL	
		TAKE-OFF WT	MAX 89 357
		- TRIP FUEL	
		LANDING WT	MAX 72 524

PAYLOAD ADJ
FINAL ZERO FUEL
FINAL TAKE-OFF
FINAL LANDING

I am satisfied that this aircraft has been loaded in accordance with company requirements	NUMBER OF PASS	
	INITIAL	FINAL
SIGNED	CAPTAIN G.T.F.D.	
PREPARED BY		
MAXIMUM ALLOWABLE TAKE-OFF WEIGHT (kg)		
% MAC	VH	
FLAP SETTING	FLIGHT NO	
STAB SETTING	FROM	
DATE	TO	



ITEM	WEIGHT	INDEX
BASIC AIRCRAFT		
ADJ BASIC AIRCRAFT		

HORIZONTAL STABILISER SETTING FOR TAKE-OFF (NOSE UP)

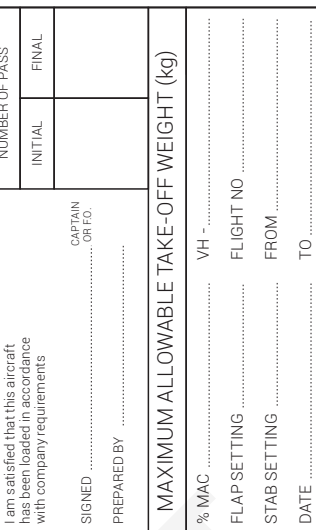
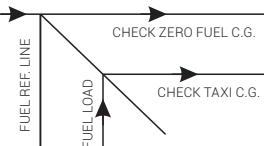
LOAD AND TRIM SHEET

BOEING 727-200

ALL WT IN KG

THE CENTRE OF GRAVITY MUST
BE CHECKED AT BOTH:
(A) ZERO FUEL WEIGHT

ALL WT IN KG



BOEING 727-200

LOAD AND TRIM SHEET



Credits

The content of this workbook was created and written by Matt Rayson, a highly experienced flight instructor and charter pilot. Matt and the team at Ground Effect Aviation are proud to offer this series of examination preparation books to all Australian aviation students and wish everyone the best of luck with their studies.

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The diagrammatic information, loading systems and performance data contained in this workbook has been designed to replicate that used by the Civil Aviation Safety Authority solely as an examination preparation tool.

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