



APPENDIX D
CALCULATED
RUNWAY LENGTH









D. Calculated Runway Length

FAA standard runway length analysis according to AC 150/5325-4B, is calculated based on the following factors:

- Maximum Takeoff Weight (MTOW)
- Maximum Landing Weight (MLW)
- Mean daily maximum temperature of the hottest month: 83F for HVN
- Adjusts takeoff length by 10 feet for every foot of runway elevation difference
- Adjusts landing length by 15% to account for contaminated runways

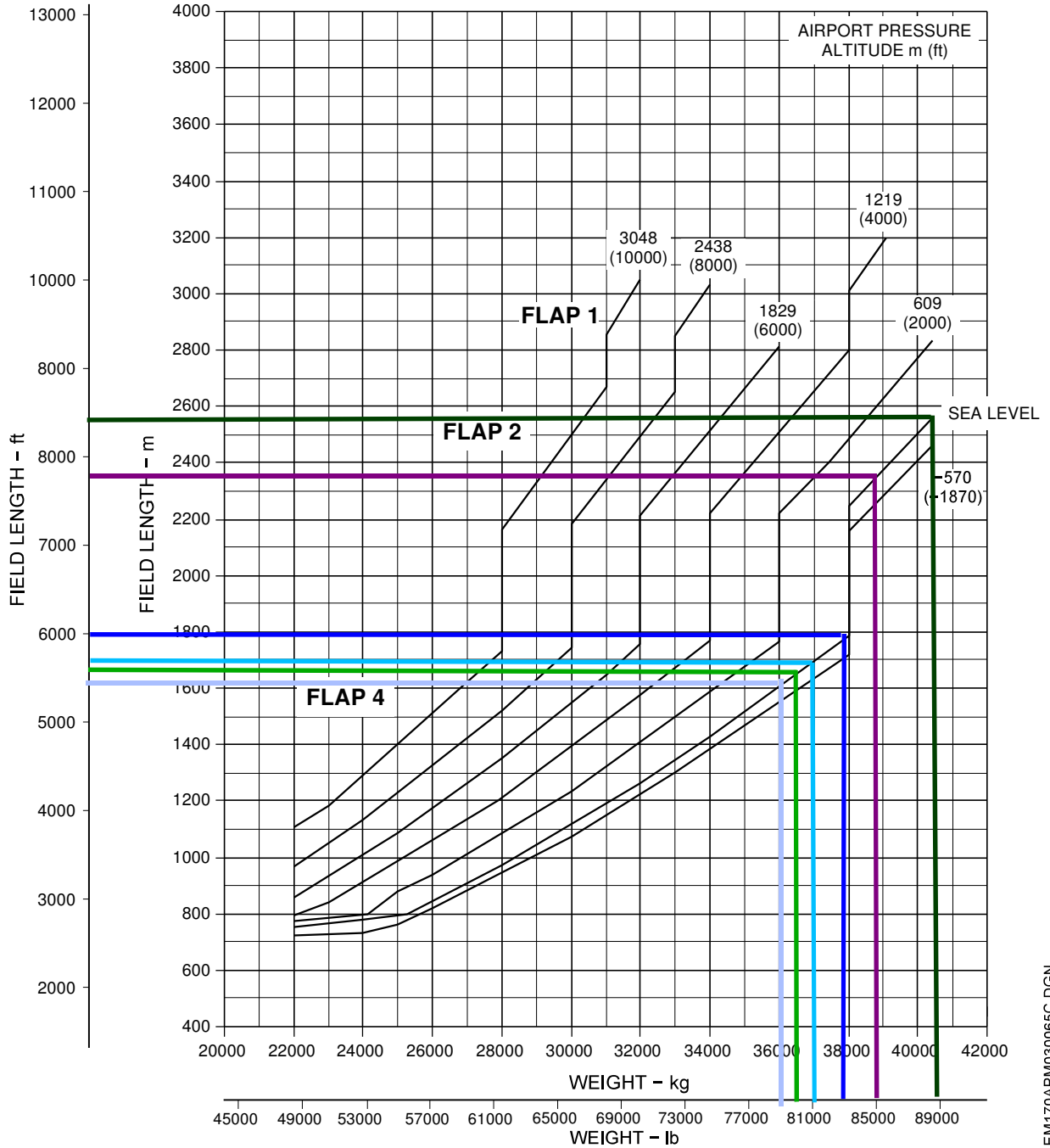
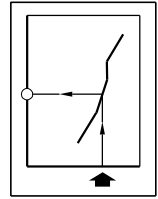
The E175 takeoff charts show different runway length distances based on the following legend:

-  Embraer 175 STD MTOW
-  Embraer 175 LR MTOW
-  Embraer 175 AR MTOW
-  HVN – Charlotte route with passengers and luggage only
-  HVN – Charlotte route with maximum payload
-  Take-off weight for HVN's 5,600-foot runway



EMBRAER 175 AIRPORT PLANNING MANUAL

TAKEOFF FIELD LENGTH
 CF 34-8E5 ENGINE@T/O-1 MODE
 ATTCS: ON / ECS: OFF
 DRY, SMOOTH, HARD PAVED AND LEVEL RUNWAY
 ISA+15°C



Takeoff Field Lengths - ISA + 15 °C Conditions
 Figure 3.6

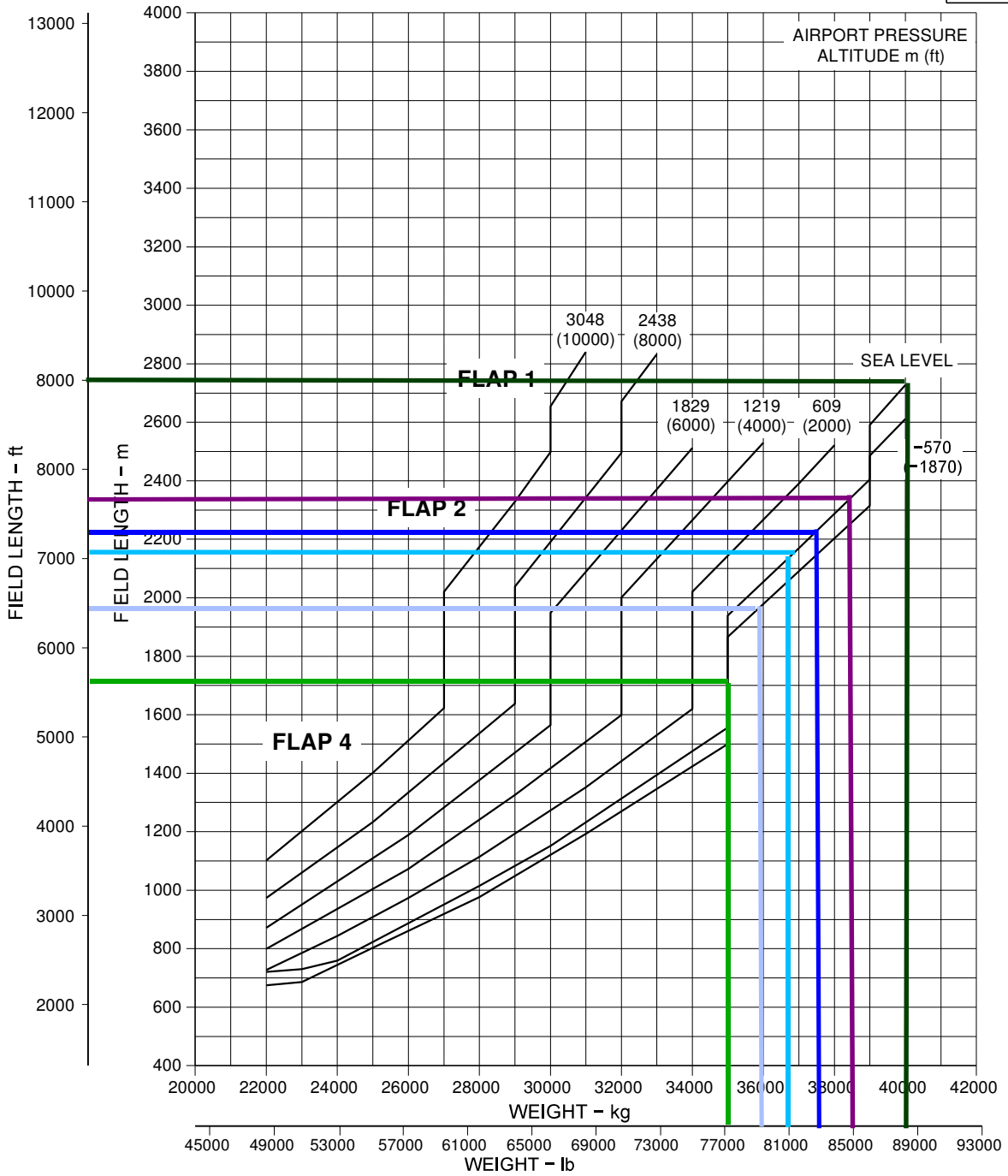
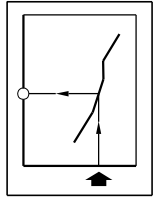
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EFFECTIVITY: ALL



EMBRAER 175 AIRPORT PLANNING MANUAL

TAKEOFF FIELD LENGTH
 CF 34-8E5 ENGINE@T/O-1 MODE
 ATCS: OFF / ECS: OFF
 DRY, SMOOTH, HARD PAVED AND LEVEL RUNWAY
 ISA+15°C



Takeoff Field Lengths - ISA + 15 °C Conditions
 Figure 3.8

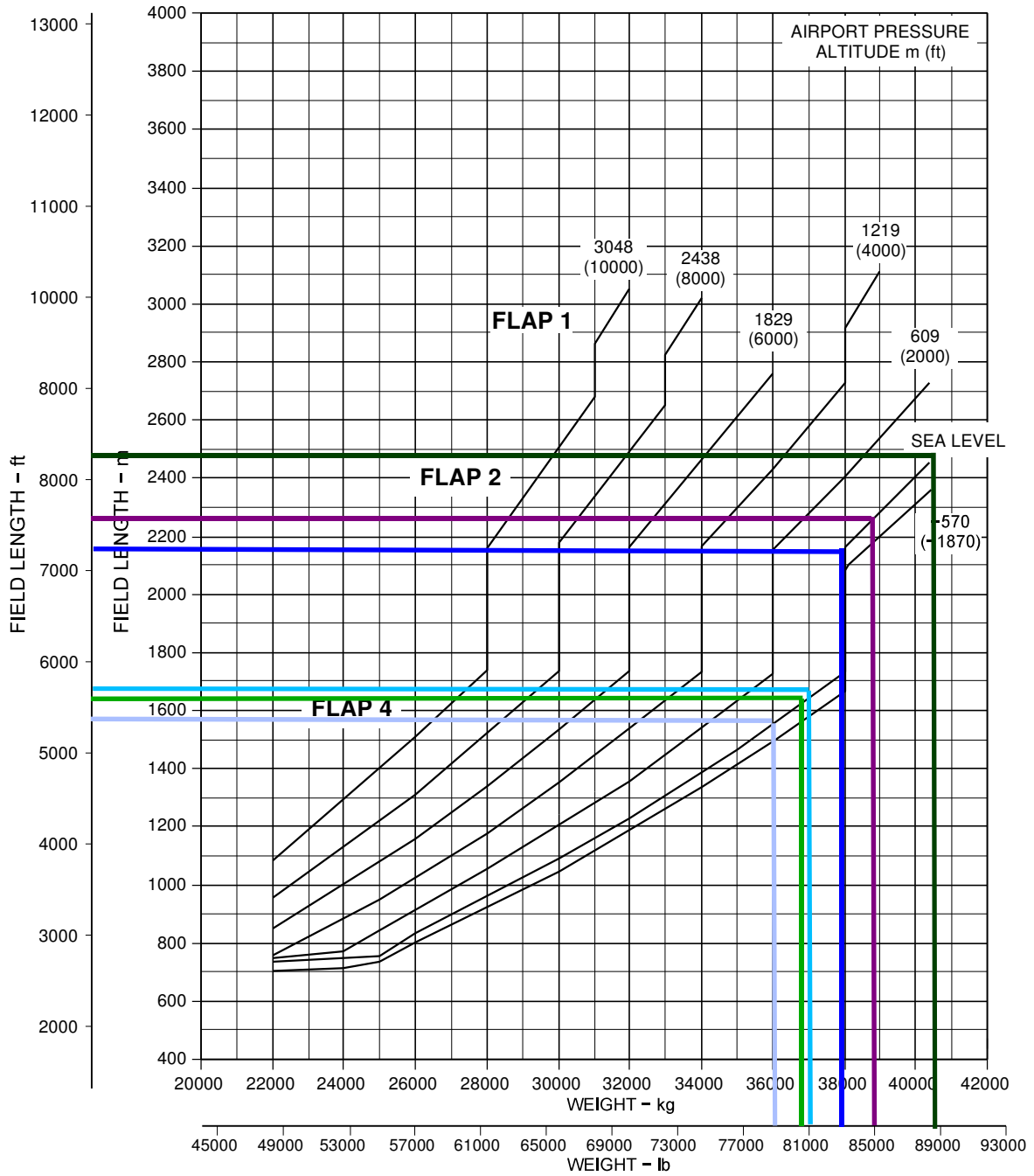
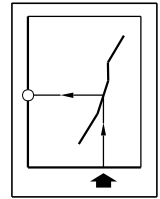
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EFFECTIVITY: ALL



EMBRAER 175 AIRPORT PLANNING MANUAL

TAKEOFF FIELD LENGTH
 CF 34-8E5A1 ENGINE@T/O-1 MODE
 ATCS: ON / ECS: OFF
 DRY, SMOOTH, HARD PAVED AND LEVEL RUNWAY
 ISA+15°C



Takeoff Field Lengths - ISA + 15 °C Conditions
 Figure 3.10

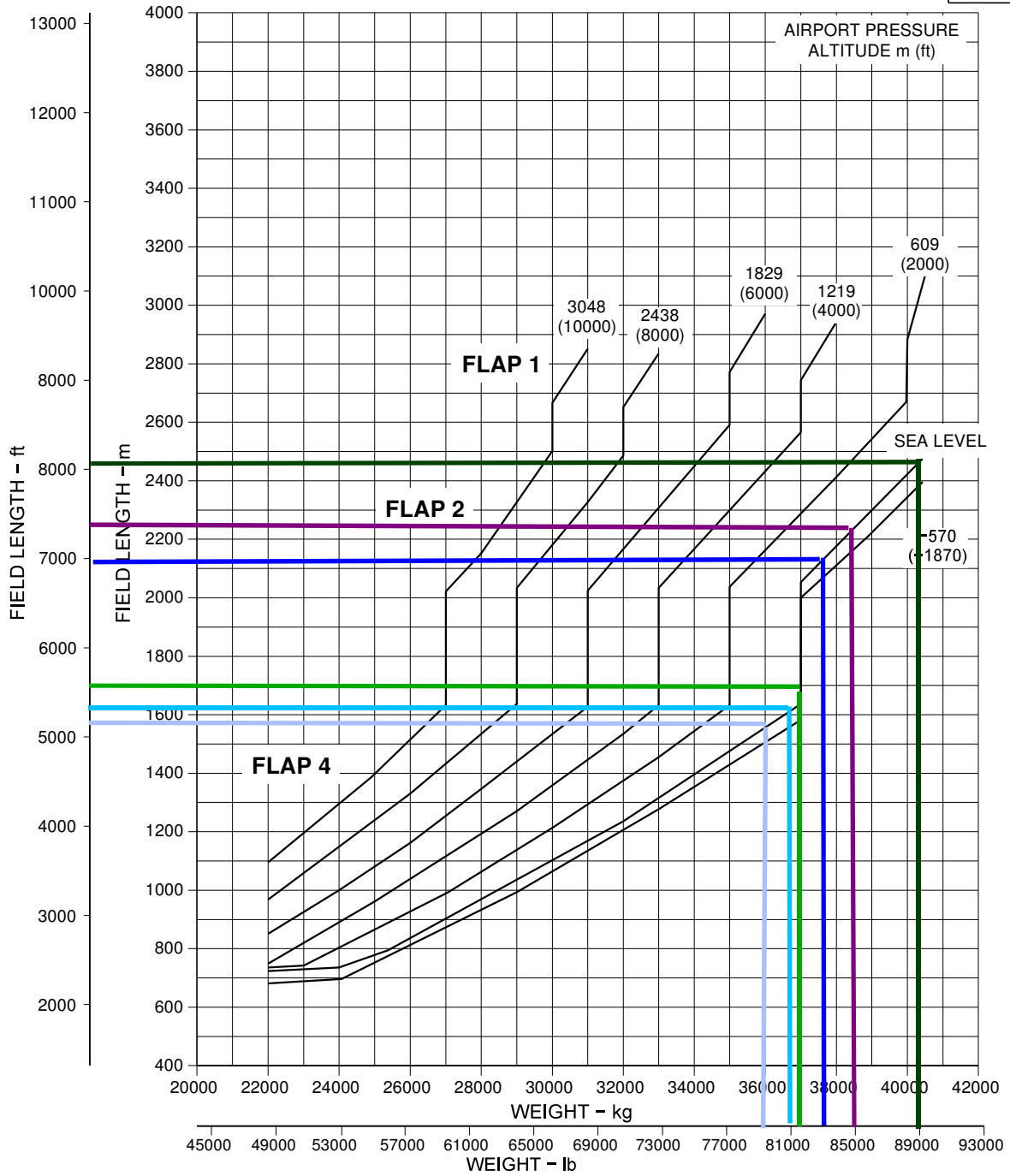
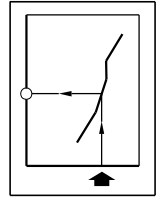
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EFFECTIVITY: ALL



EMBRAER 175 AIRPORT PLANNING MANUAL

TAKEOFF FIELD LENGTH
 CF 34-8E5A1 ENGINE@T/O-1 MODE
 ATTCS: OFF / ECS: OFF
 DRY, SMOOTH, HARD PAVED AND LEVEL RUNWAY
 ISA+15°C



Takeoff Field Lengths - ISA + 15 °C Conditions
 Figure 3.12

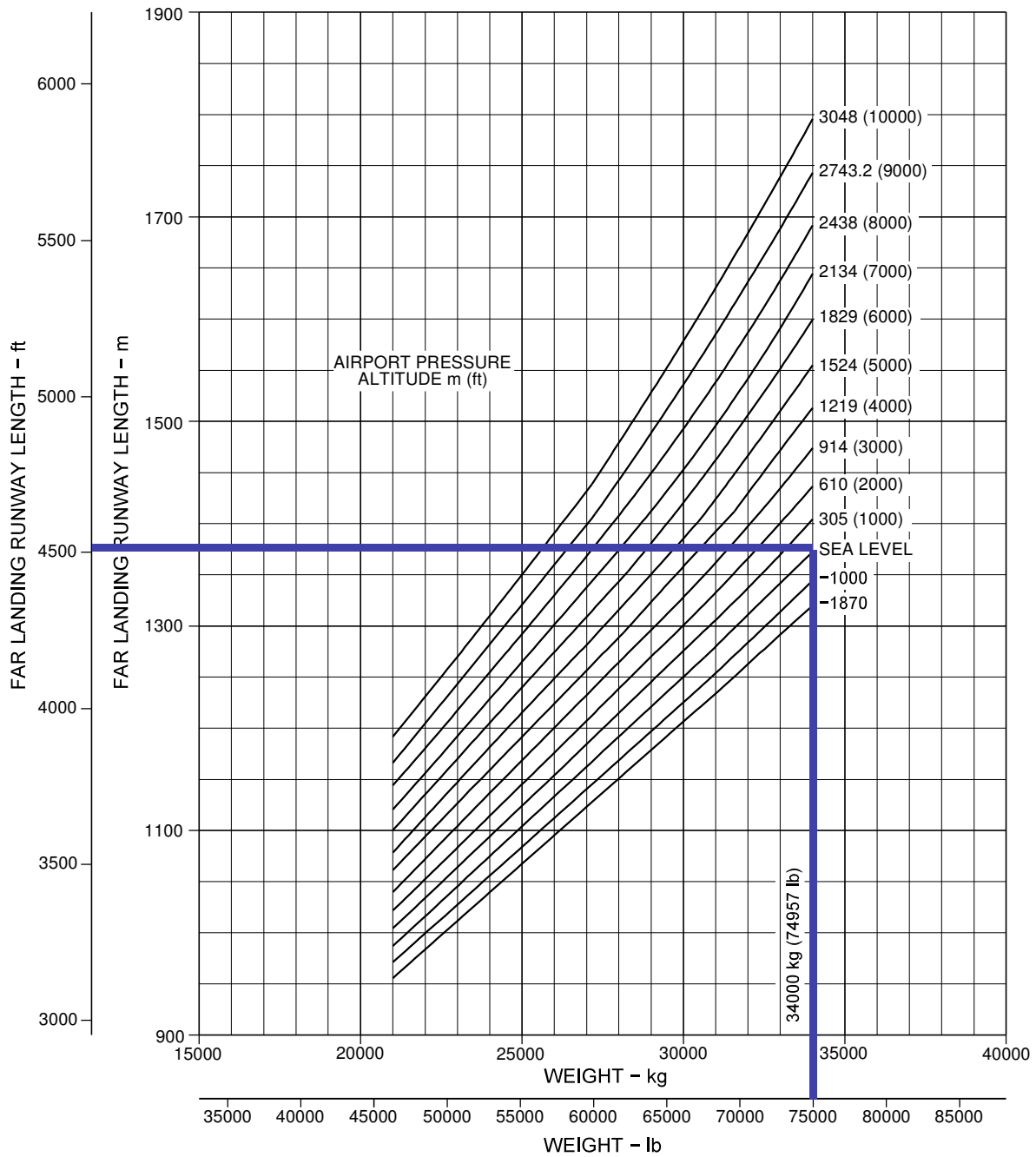
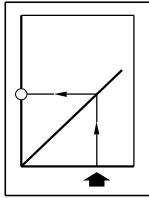
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EFFECTIVITY: ALL



EMBRAER 175 AIRPORT PLANNING MANUAL

LANDING FIELD LENGTH
 FLAP 5 - FAA
 ISA
 DRY, SMOOTH, HARD PAVED AND LEVELLED RUNWAY



Landing Field Lengths - Flaps 5
 Figure 3.13

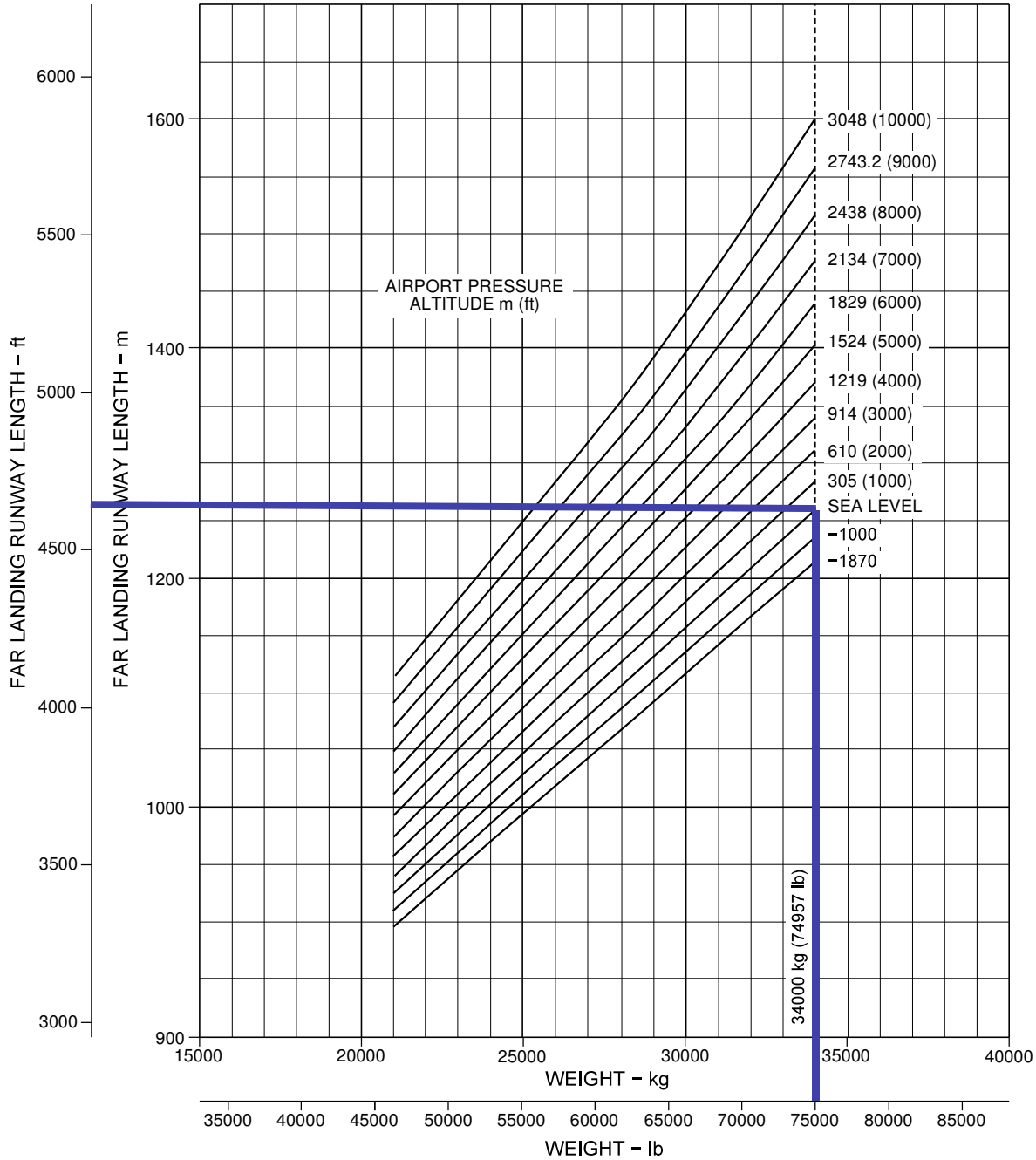
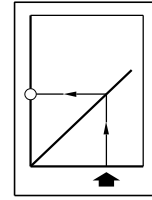
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EFFECTIVITY: FAA-CERTIFIED ACFT



EMBRAER 175 AIRPORT PLANNING MANUAL

LANDING FIELD LENGTH
 FLAP FULL - FAA
 ISA
 DRY, SMOOTH, HARD PAVED AND LEVELLED RUNWAY



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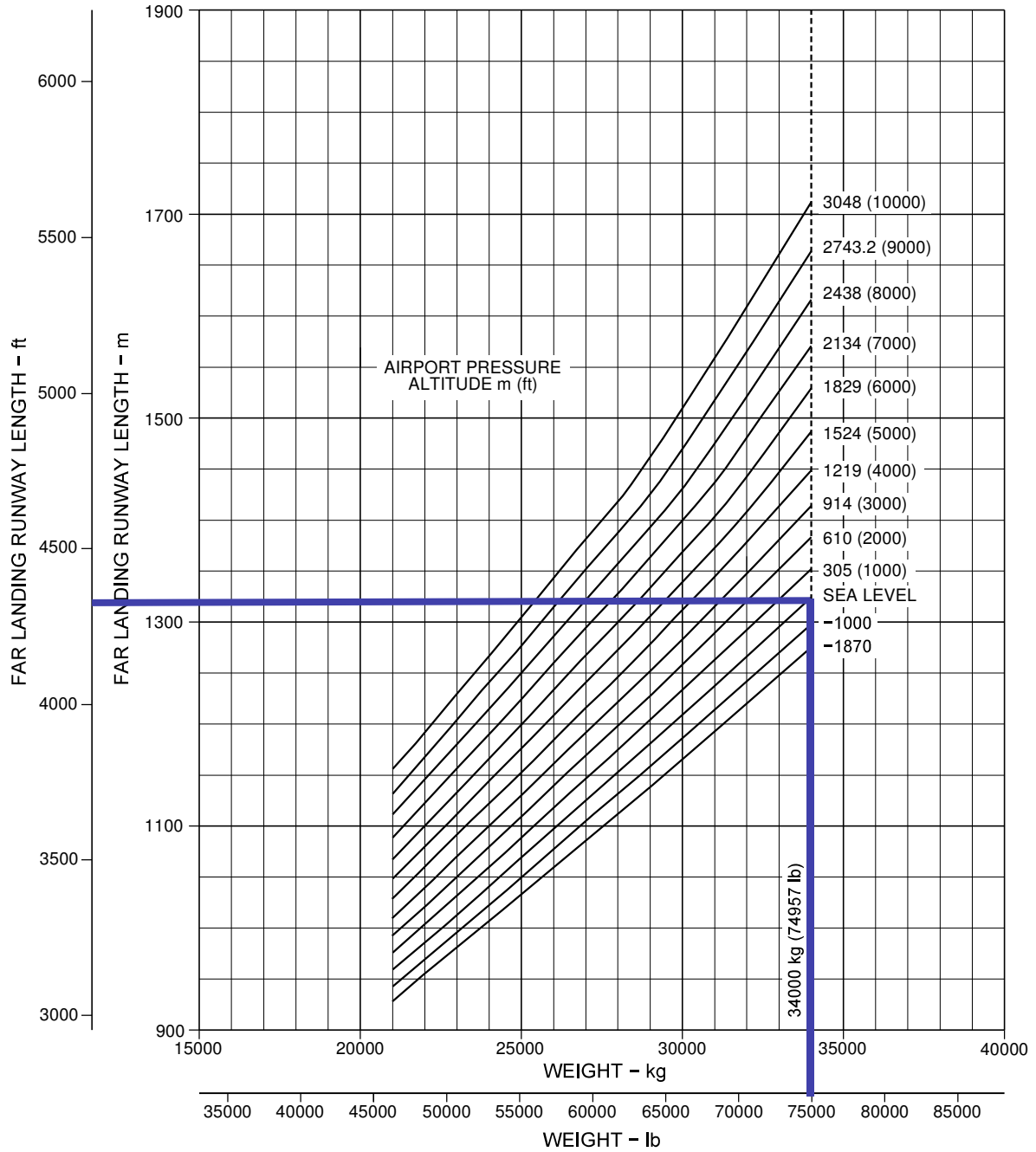
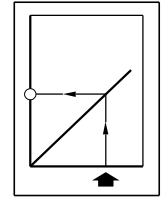
Landing Field Lengths - Flaps Full
 Figure 3.14

EFFECTIVITY: FAA-CERTIFIED ACFT



EMBRAER 175 AIRPORT PLANNING MANUAL

LANDING FIELD LENGTH
 FLAP 5 – EASA
 ISA
 DRY, SMOOTH, HARD PAVED AND LEVELLED RUNWAY



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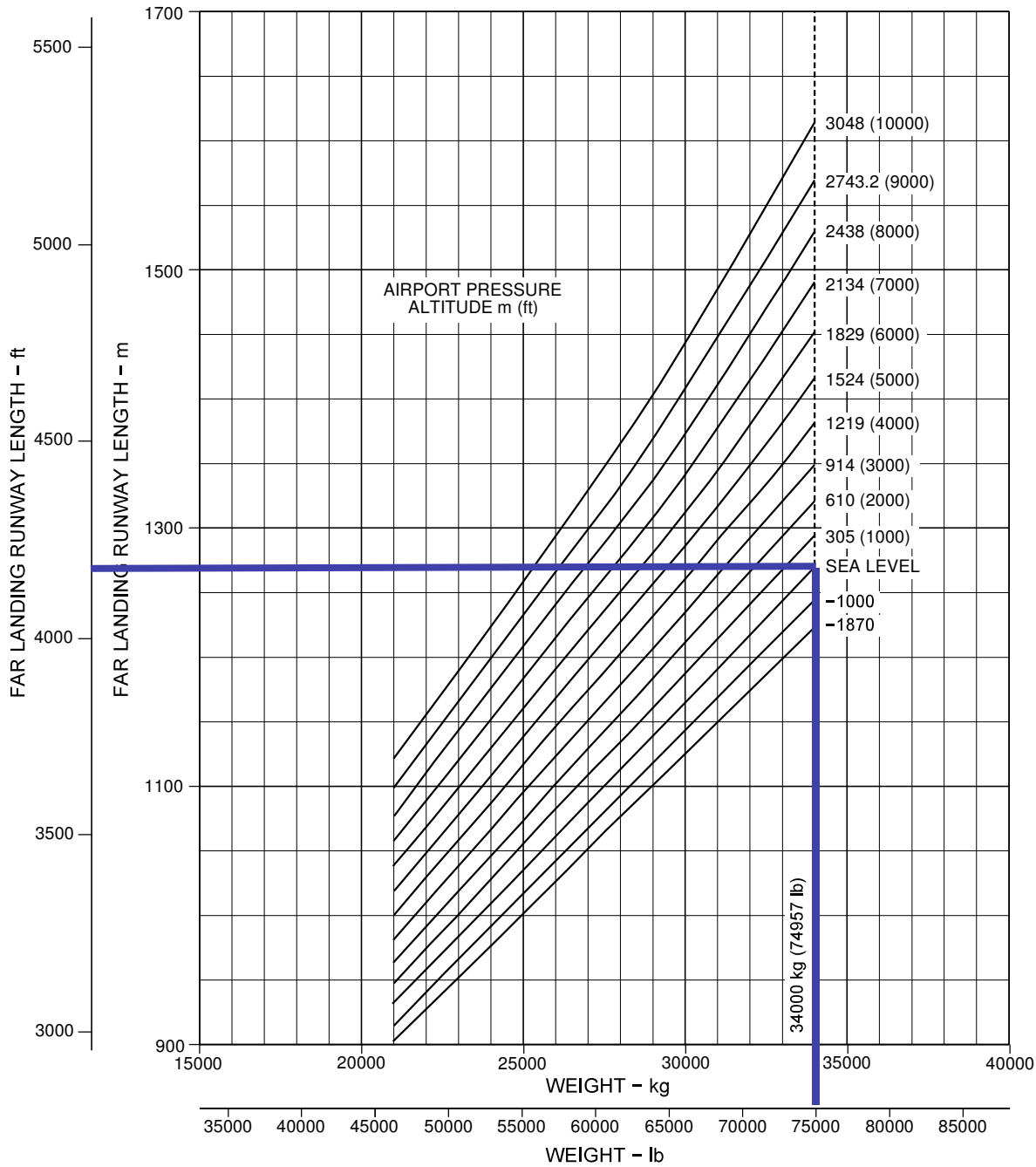
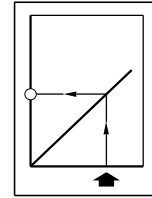
Landing Field Lengths - Flaps 5
Figure 3.15

EFFECTIVITY: EASA-CERTIFIED ACFT



EMBRAER 175 AIRPORT PLANNING MANUAL

LANDING FIELD LENGTH
 FLAP FULL - EASA
 ISA
 DRY, SMOOTH, HARD PAVED AND LEVELLED RUNWAY



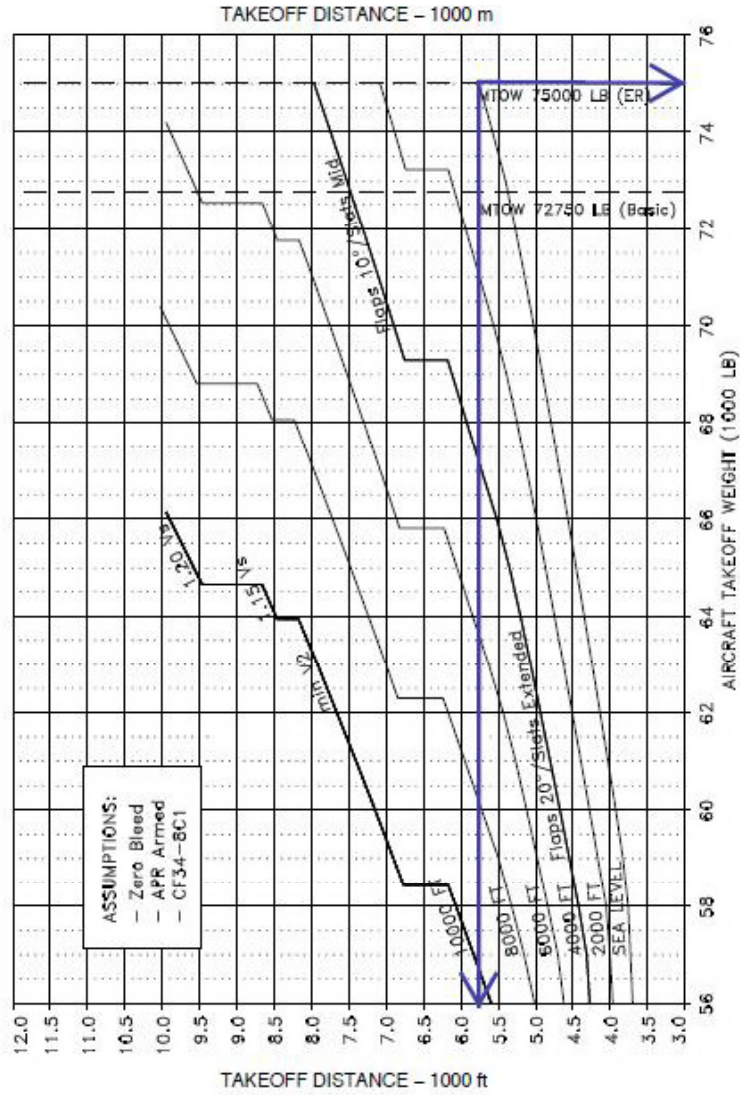
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Landing Field Lengths - Flaps Full
 Figure 3.16

EFFECTIVITY: EASA-CERTIFIED ACFT



AIRPORT PLANNING MANUAL



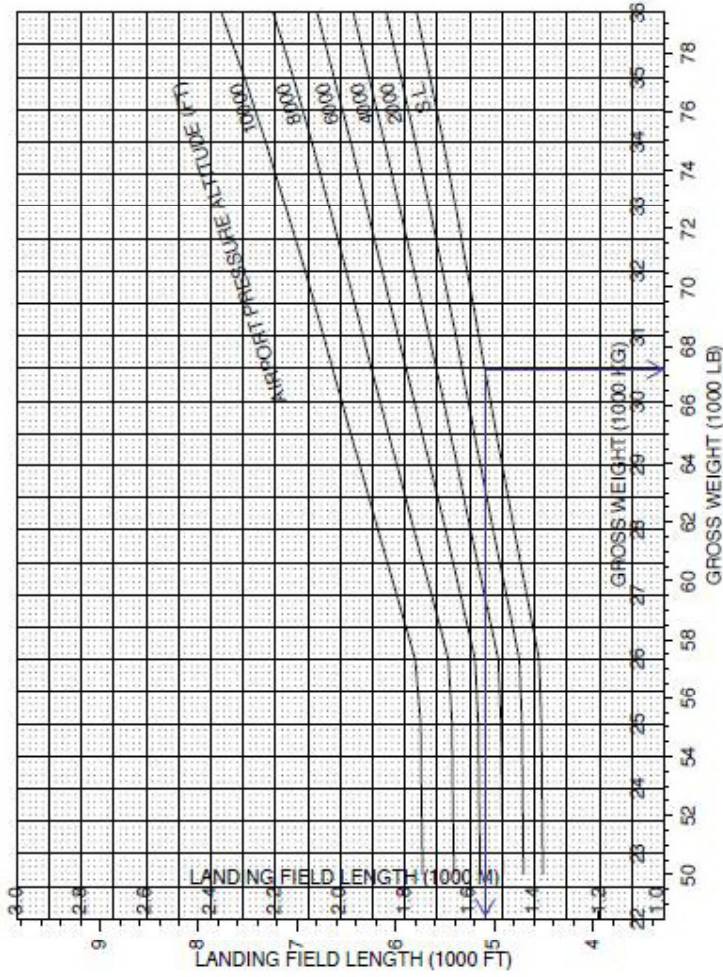
Take-Off Field Length - ISA + 15 Degrees C
 Figure 2

CSP B-020 - MASTER
 EFFECTIVITY: **ON A/C ALL

00-03-02



AIRPORT PLANNING MANUAL

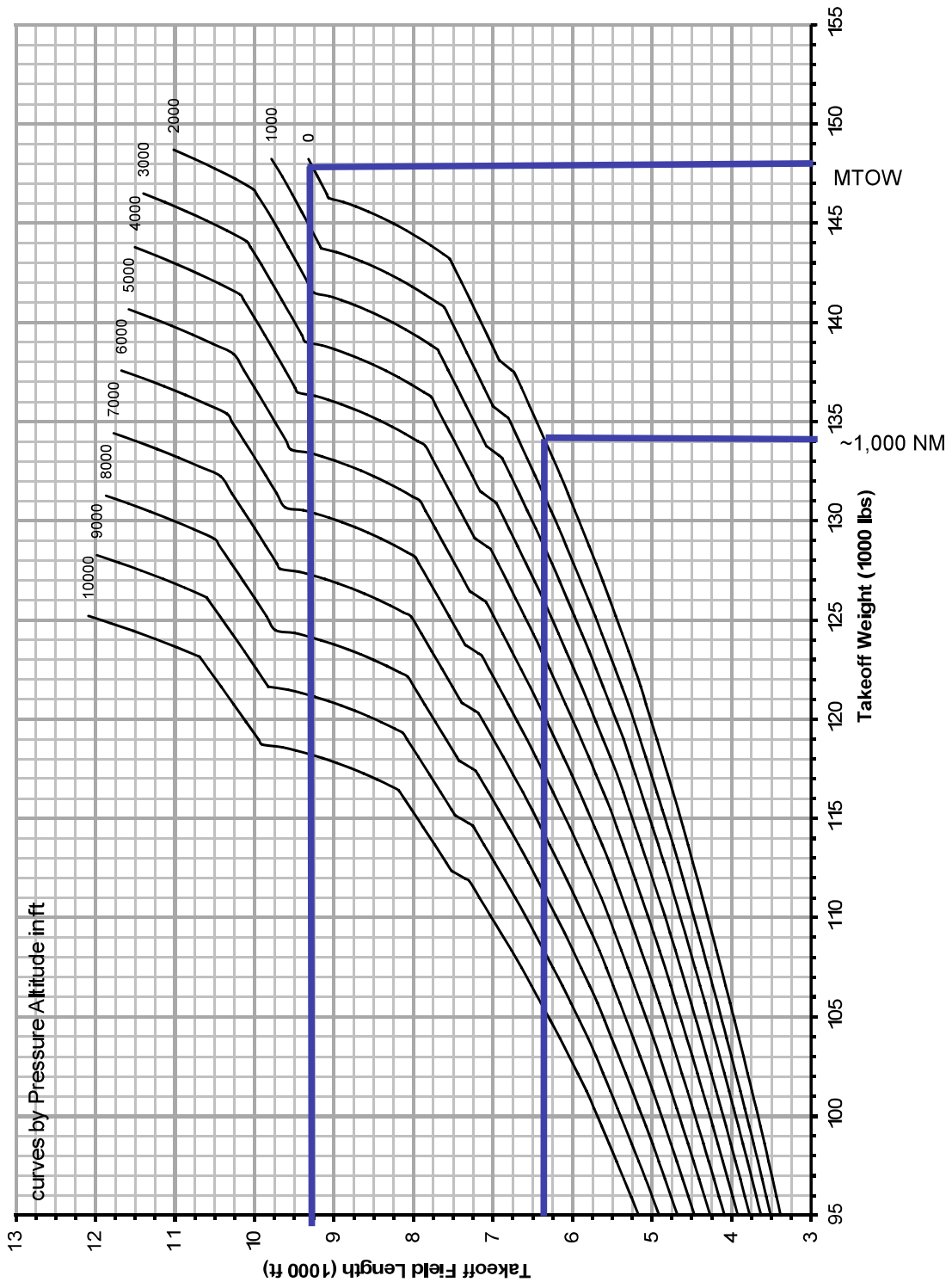


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Landing Field Length - Flaps at 45 Degrees/Slats Extended
Figure 1

CSP B-020 - MASTER
EFFECTIVITY: **ON A/C ALL

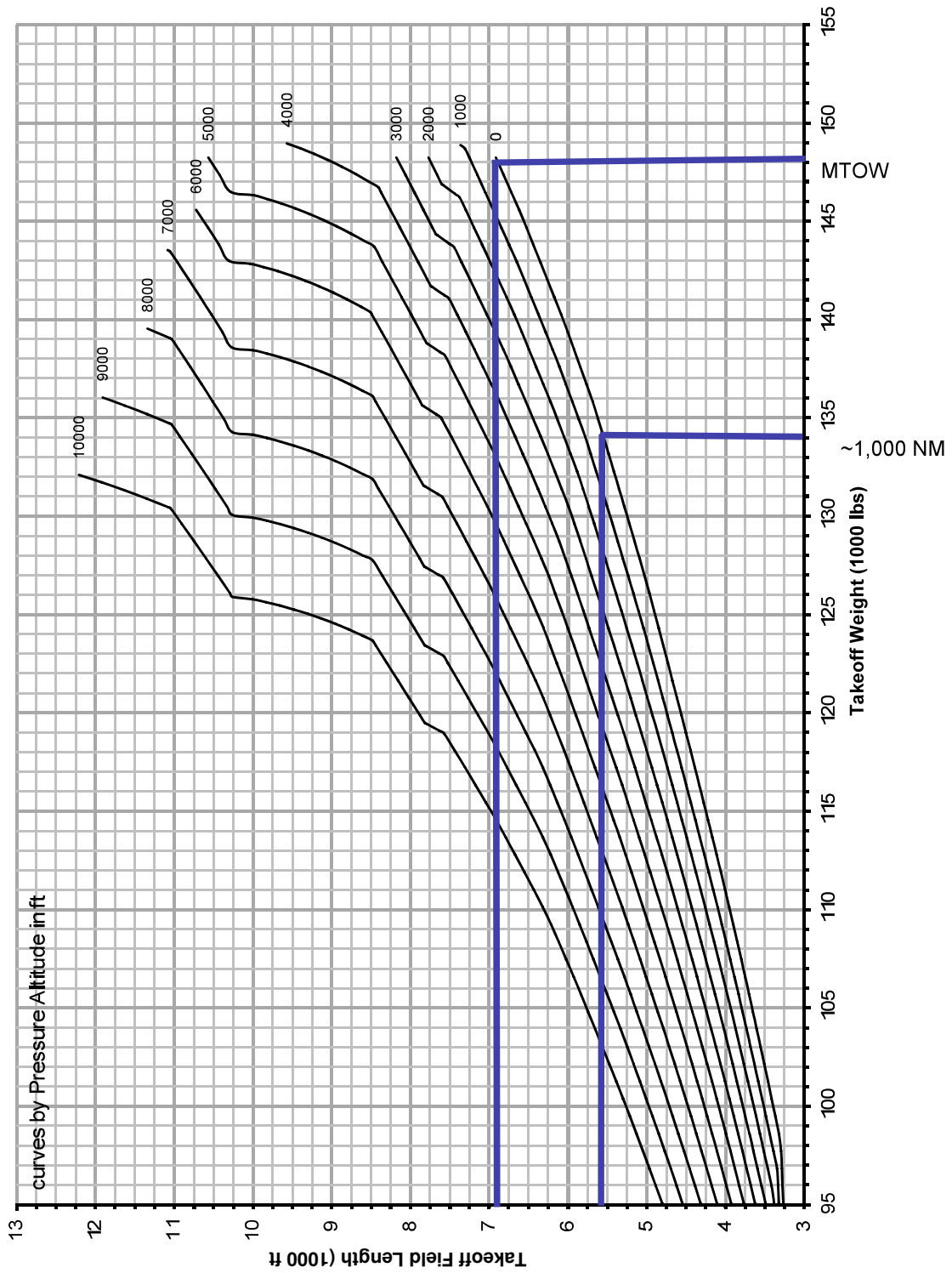
00-03-03 | Page 2
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ICN-BD500-A-J000000-A-3AB48-01751-A-002-01
 Figure 3 Takeoff field length ISA +15°C - PW1521G

See applicability on the first page of the DM
 BD500-A-J00-00-00-13AAB-030A-A

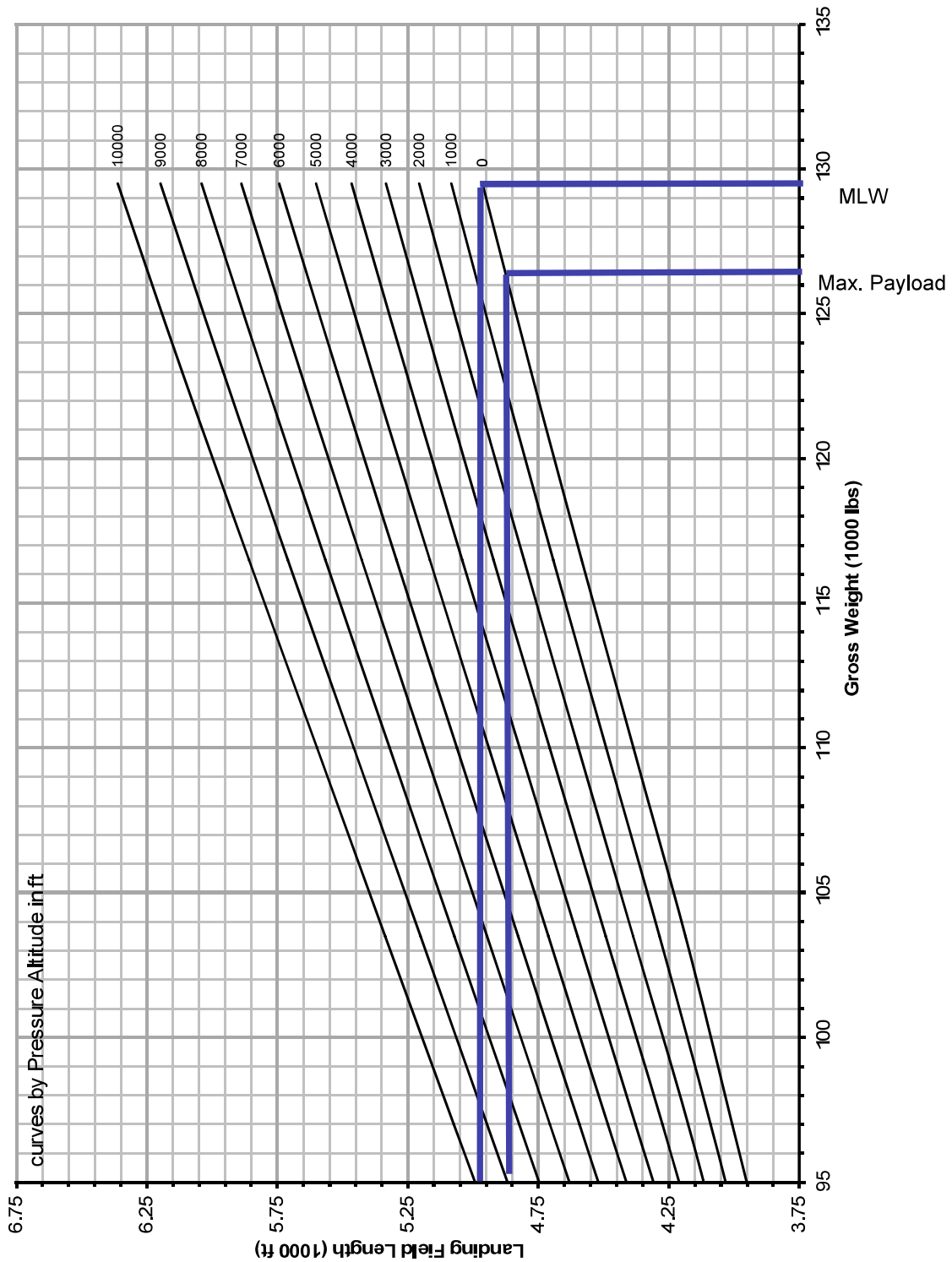
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ICN-BD500-A-J000000-A-3AB48-01750-A-002-01
 Figure 5 Takeoff field length ISA +15°C - PW1524G

See applicability on the first page of the DM
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BD500-A-J00-00-00-13AAB-030A-A

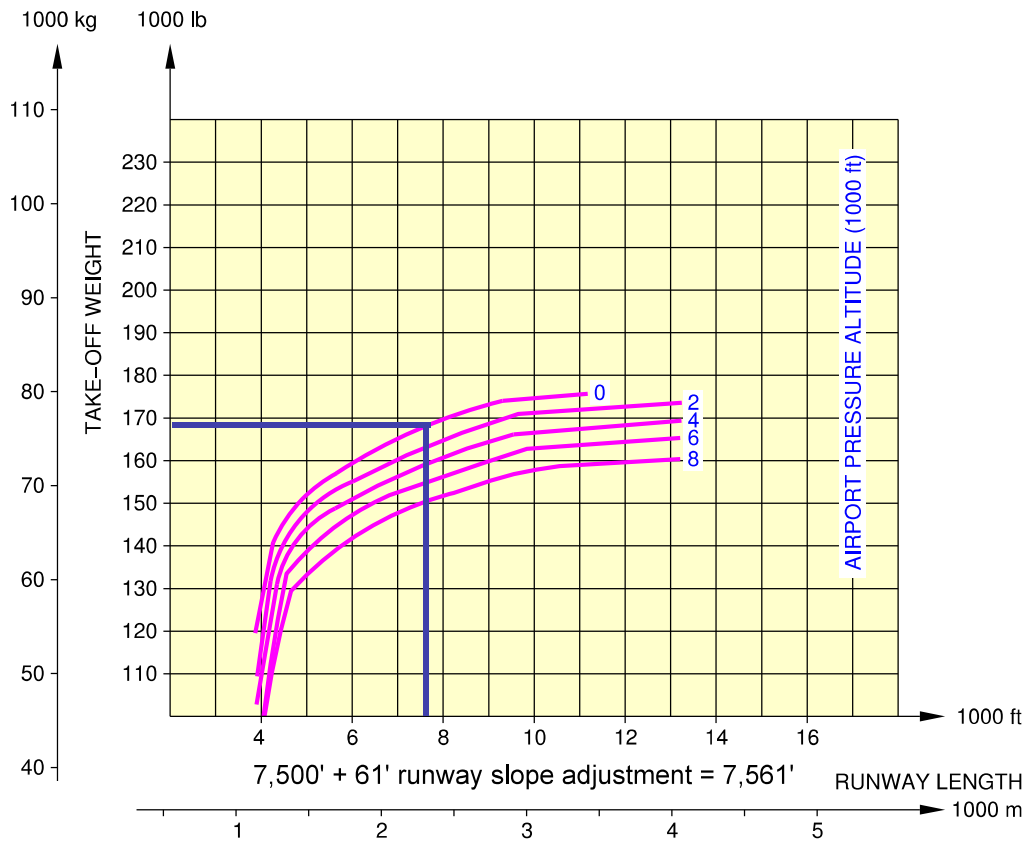


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Figure 6 Landing field length - Dry runway

**ON A/C A319-100

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THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

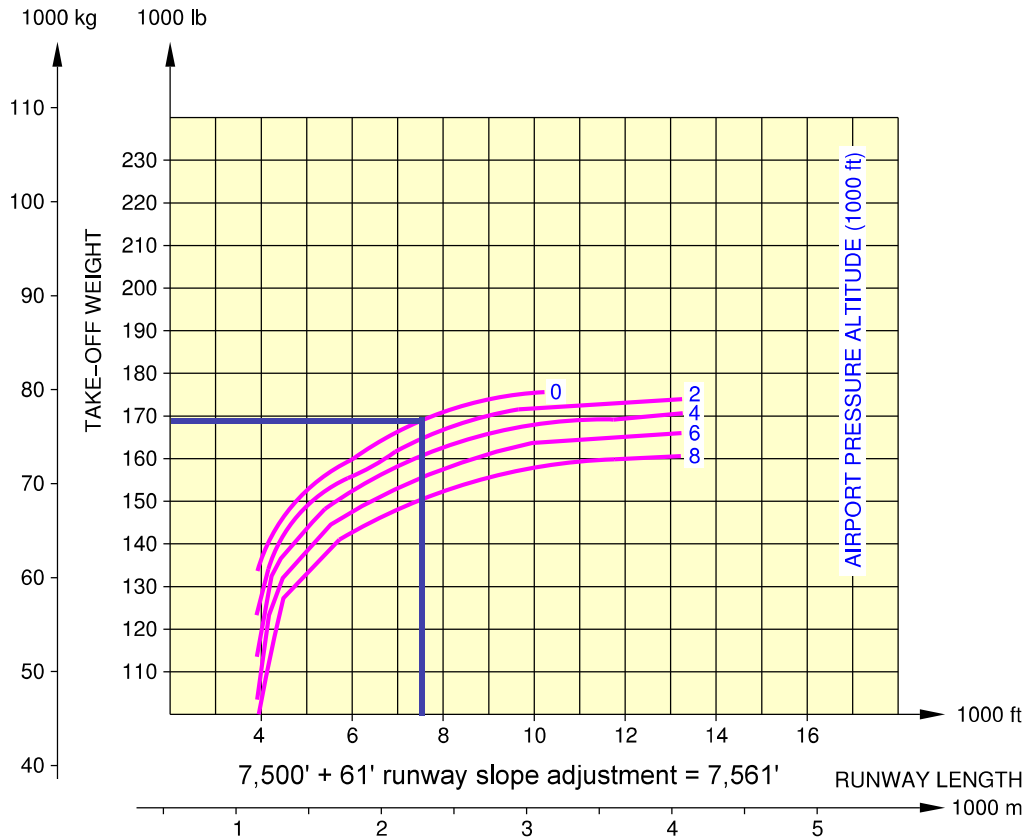


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Take-Off Weight Limitation - ISA +15° C (+59° F) Conditions
CFM56 Series Engine
FIGURE-3-3-2-991-003-A01

****ON A/C A319-100**

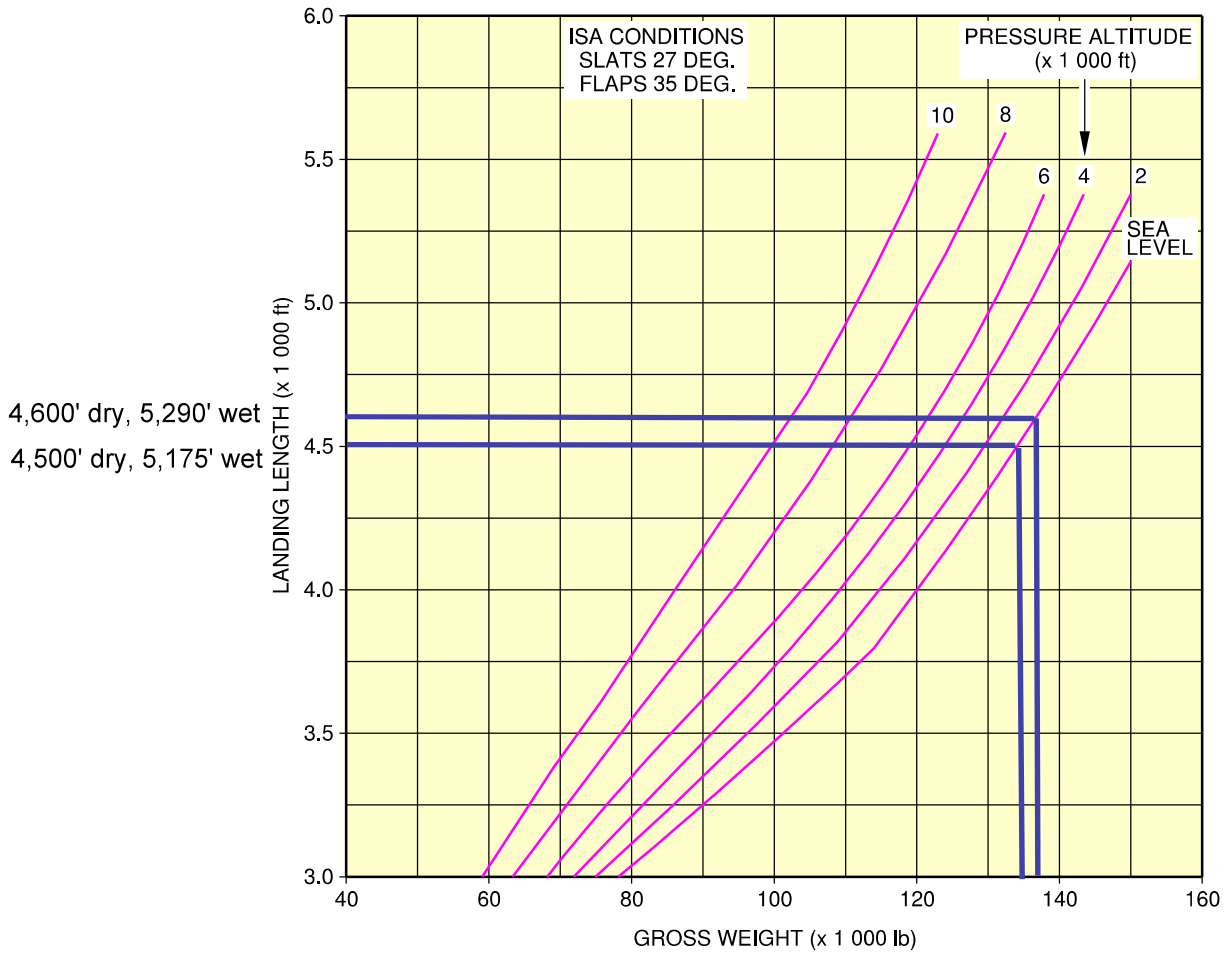
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Take-Off Weight Limitation - ISA +15° C (+59° F) Conditions
IAE V2500 Series Engine
FIGURE-3-3-2-991-004-A01

**ON A/C A319-100

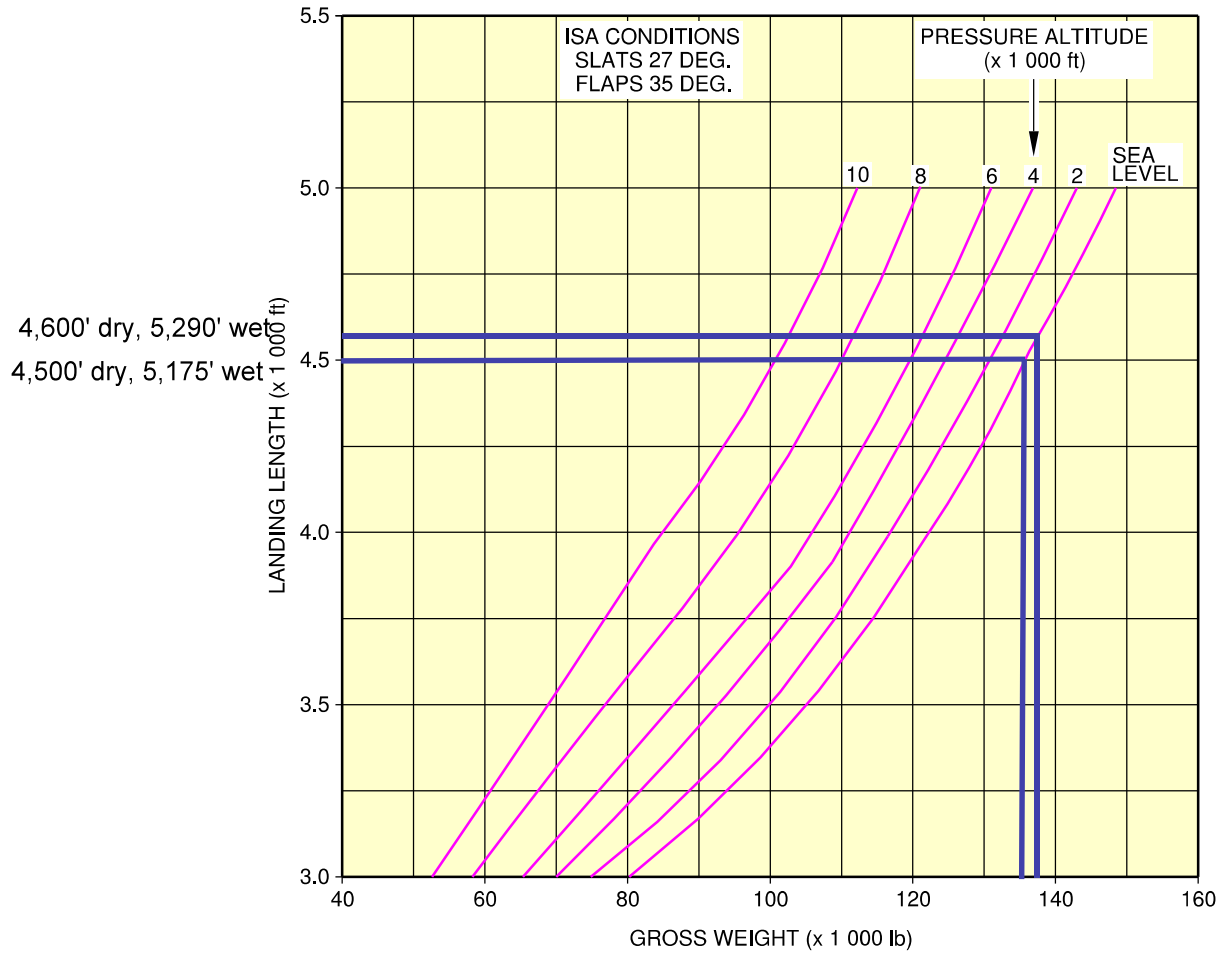


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Landing Field Length - ISA Conditions
CFM56-5A Series Engine
FIGURE-3-4-1-991-003-A01

****ON A/C A319-100**



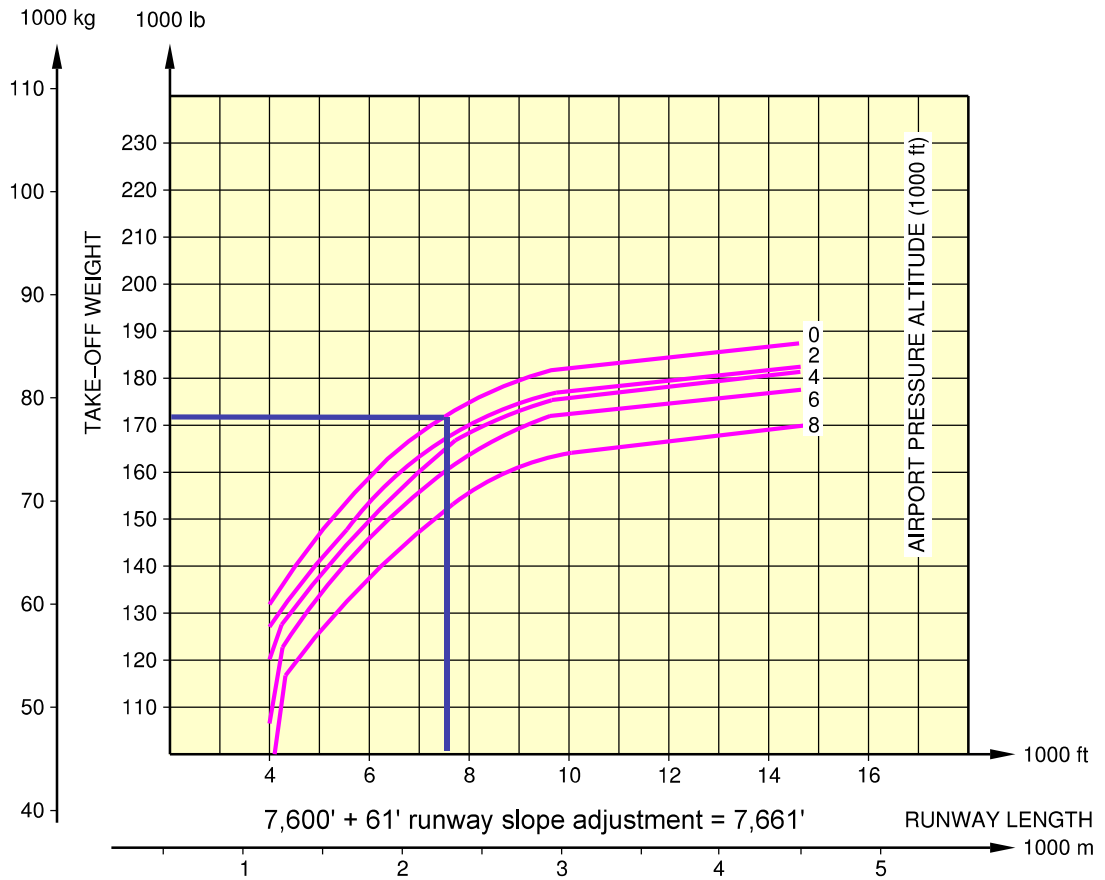
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Landing Field Length - ISA Conditions
 IAE V2500 Series Engine
 FIGURE-3-4-1-991-004-A01

****ON A/C A320-200**

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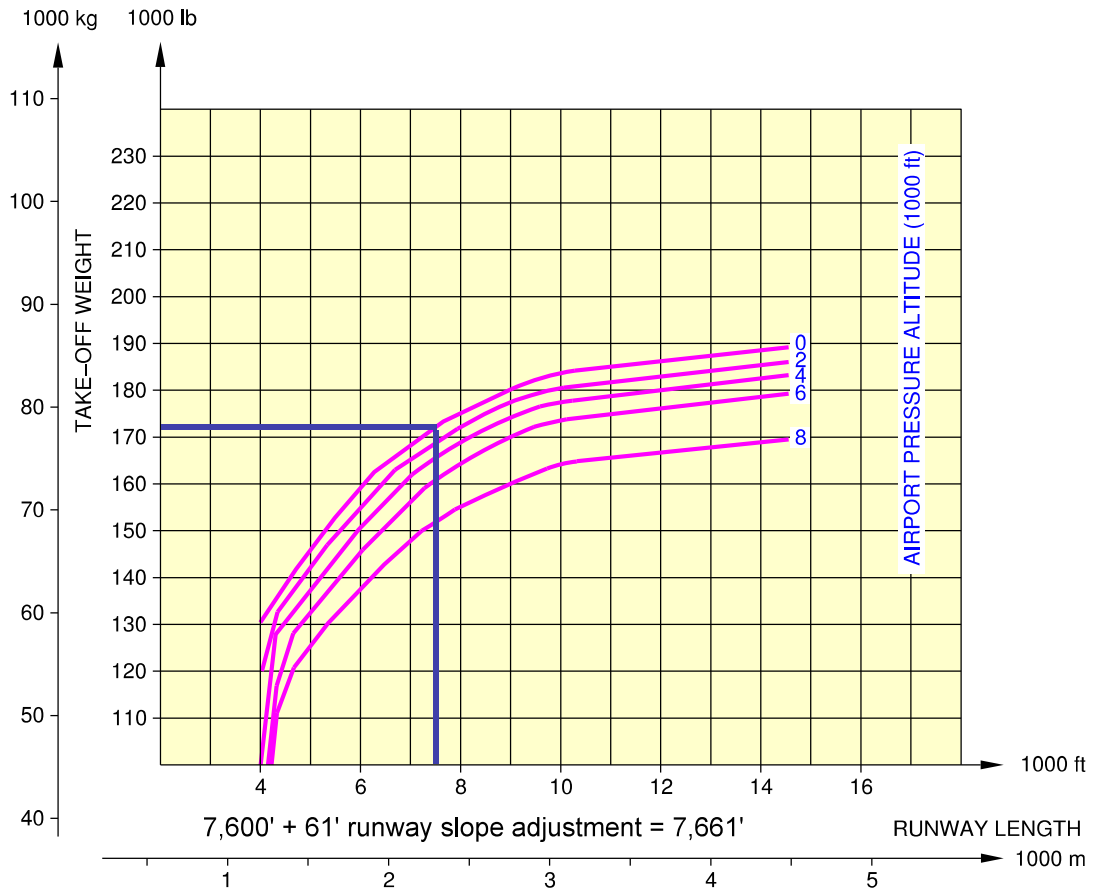


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Take-Off Weight Limitation - ISA +15° C (+59° F) Conditions
CFM56 Series Engine
FIGURE-3-3-2-991-005-A01

****ON A/C A320-200**

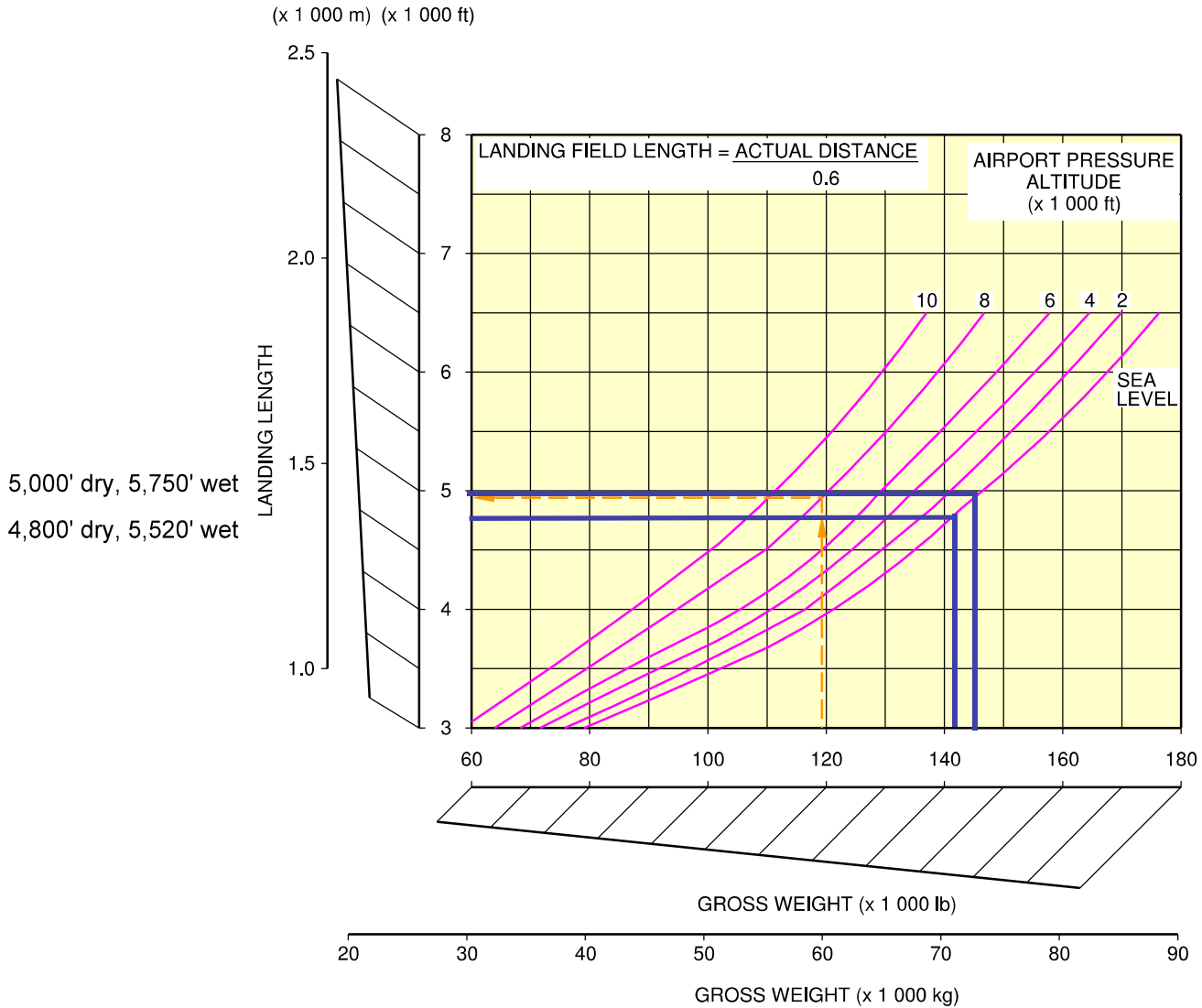
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Take-Off Weight Limitation - ISA +15° C (+59° F) Conditions
IAE V2500 Series Engine
FIGURE-3-3-2-991-006-A01

****ON A/C A320-200**

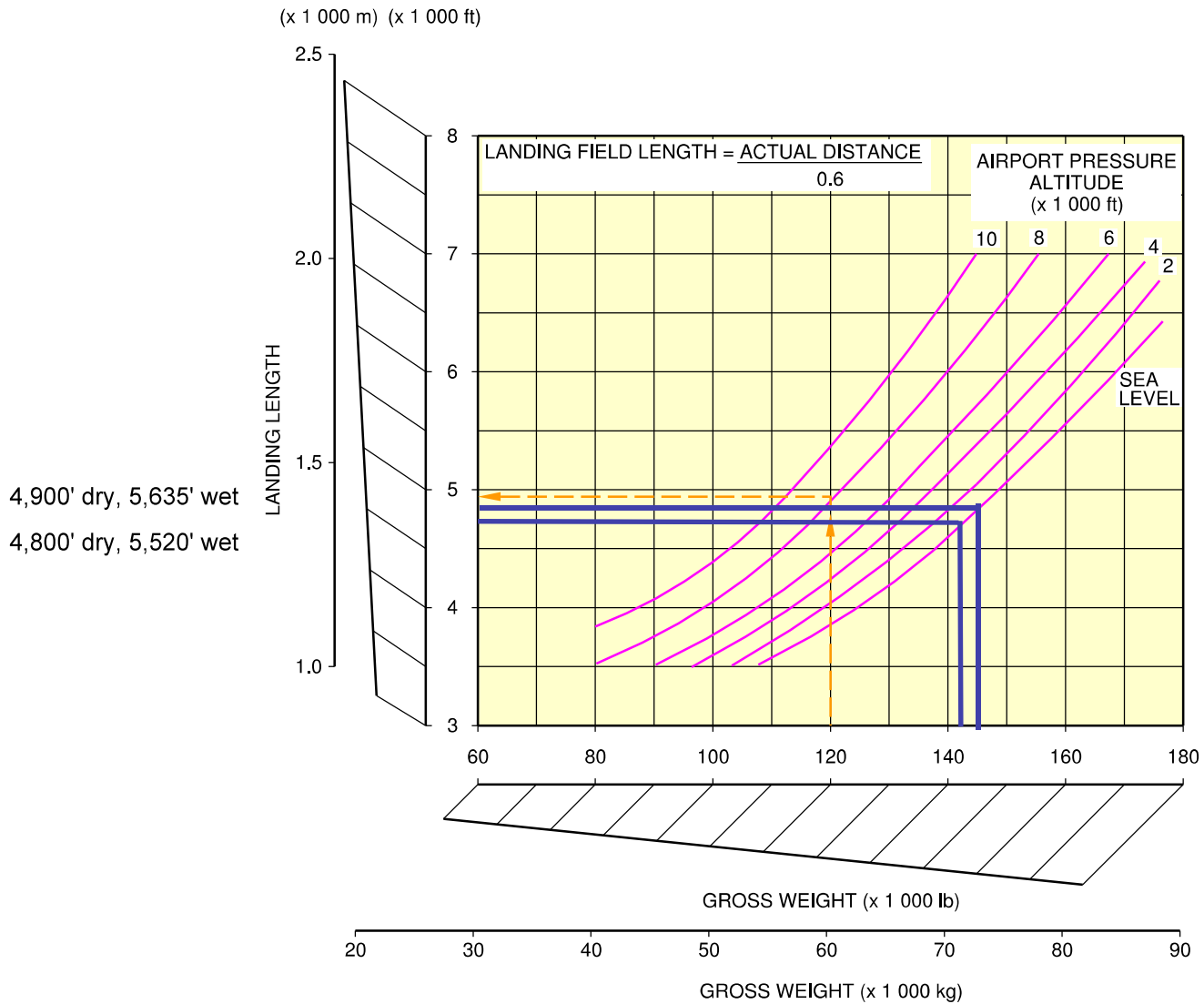


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MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

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Landing Field Length - ISA Conditions
CFM56 Series Engine
FIGURE-3-4-1-991-005-A01

****ON A/C A320-200**



NOTE:
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N_AC_030401_1_0060101_01_01

Landing Field Length - ISA Conditions
 IAE V2500 Series Engine
 FIGURE-3-4-1-991-006-A01