

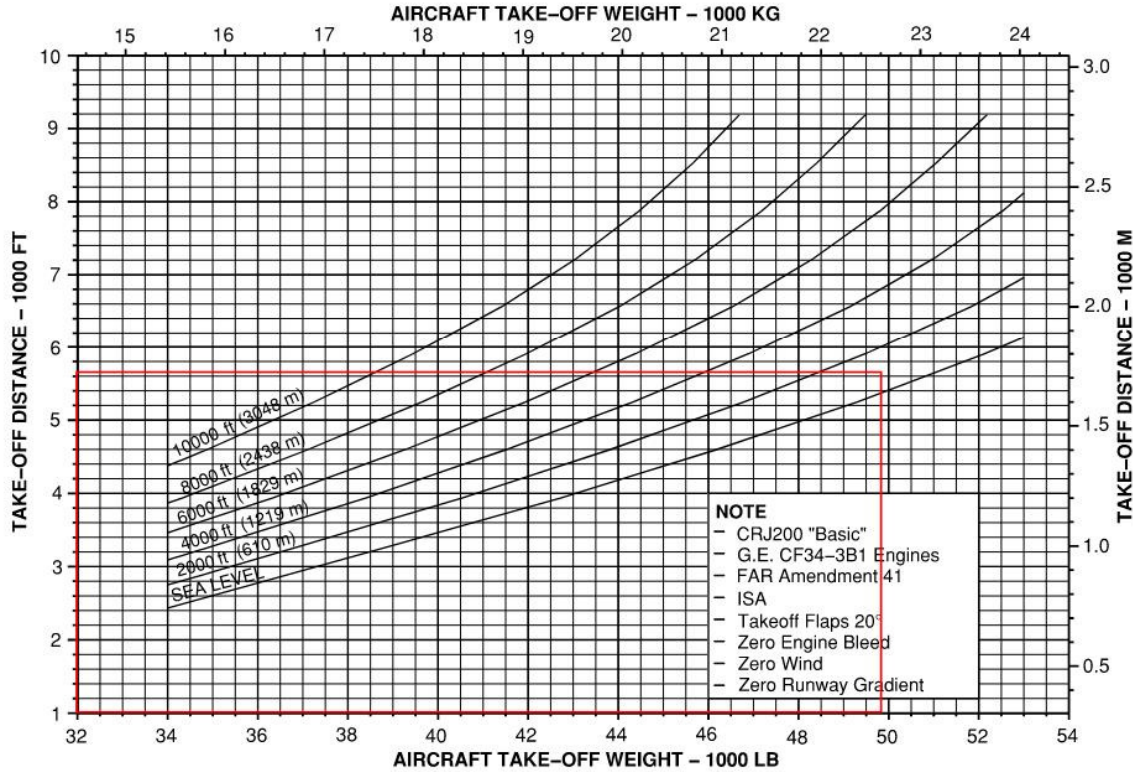
Appendix C: Aircraft Takeoff Distance Performance Charts

CRJ200 - ISA

apm030502_02.cgm, kph, jan24/2018



AIRPORT PLANNING MANUAL



FAR Takeoff Runway Length Requirements – ISA Conditions – CRJ200
Figure 10

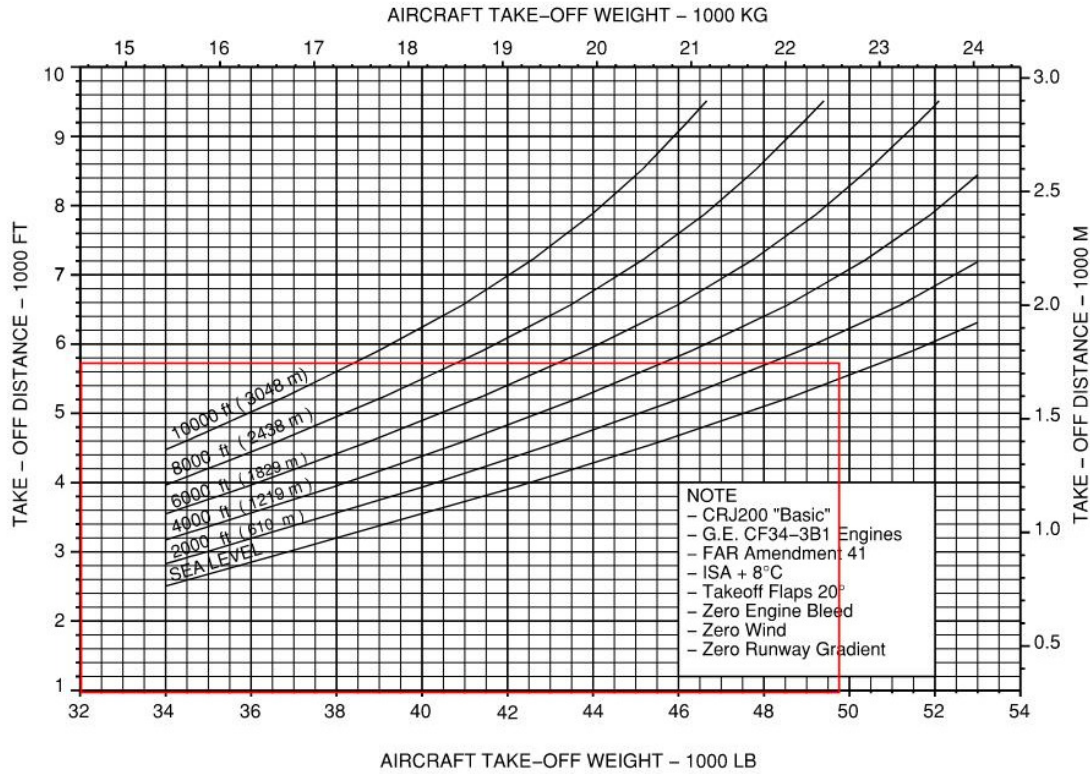
CSP A-020 – MASTER
EFFECTIVITY: "ON A/C ALL

00-03-01
Page 11
Dec 10/2018

CRJ200 - ISA +8

apmd030503_01.qgm: fpkc, jan24/2017

MHIRJ
AIRPORT PLANNING MANUAL



FAR Takeoff Runway Length Requirements – ISA + 8 C – CRJ200
Figure 12

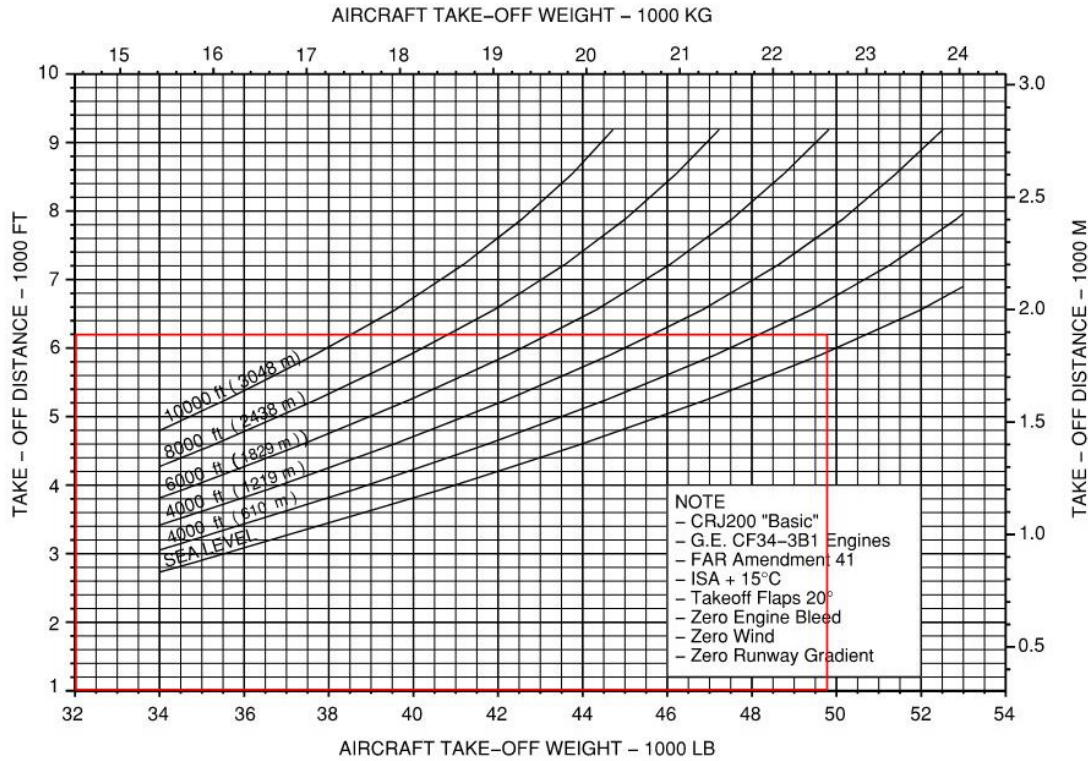
CSP A-020 – MASTER
EFFECTIVITY: **ON A/C ALL

00-03-01
Page 13
Dec 10/2018

CRJ200 - ISA +15

apmd030505_01.qgm:fb/ko,Jan24/2017

MHIRJ
AIRPORT PLANNING MANUAL



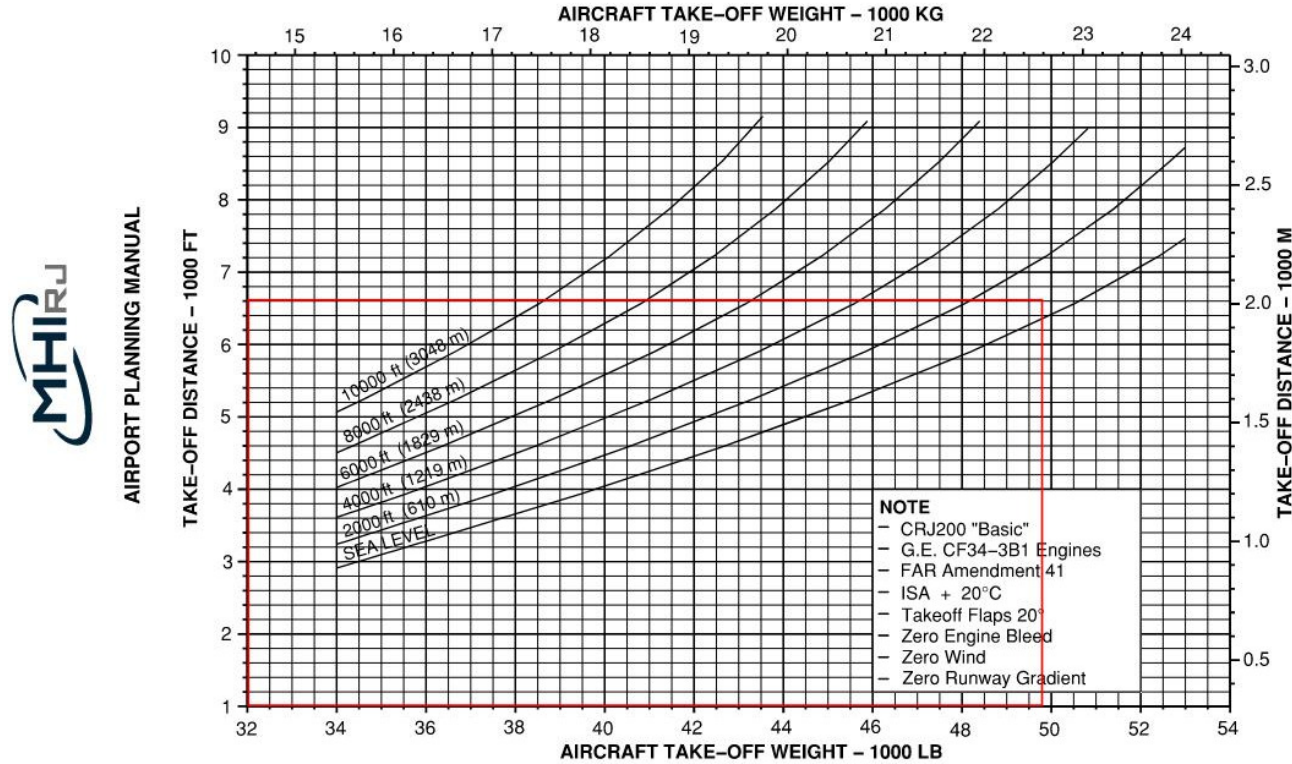
FAR Takeoff Runway Length Requirements - ISA + 15 C - CRJ200
Figure 14

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

00-03-01
Page 15
Dec 10/2018

CRJ200 - ISA +20

apm030507_01.cgm, hr, gb, 26/01/2018



MHIRJ
AIRPORT PLANNING MANUAL

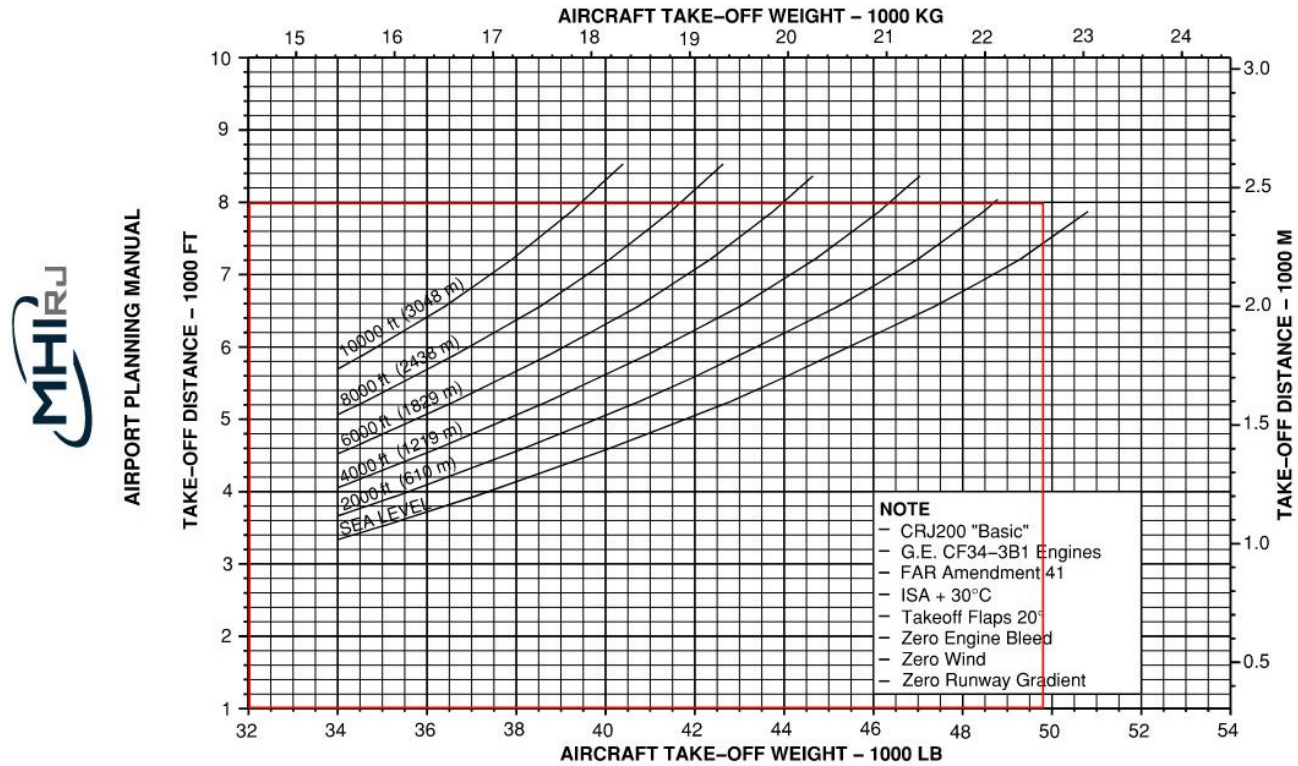
FAR Takeoff Runway Length Requirements - ISA + 20 C - CRJ200
Figure 16

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

00-03-01
Page 17
Dec 10/2018

CRJ200 - ISA +30

8102424/1471, 101, 01, 05, 2018



FAR Takeoff Runway Length Requirements - ISA + 30 C - CRJ200
Figure 18

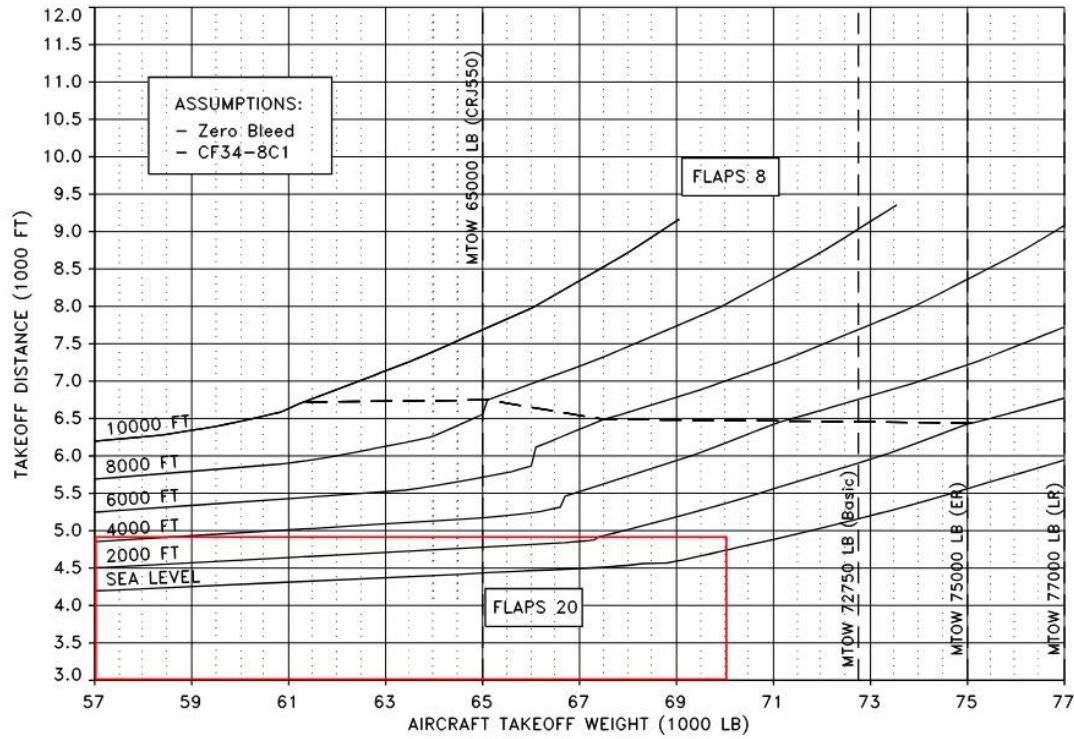
CSP A-020 - MASTER
EFFECTIVITY: **ON A/C ALL

00-03-01
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CRJ700 - ISA



AIRPORT PLANNING MANUAL



cd_Isa00_LR.uni

Nov 28 2019 - SL

ba027a01 cgm, gh, dec2/2019

Take-Off Field Length - ISA
Figure 1

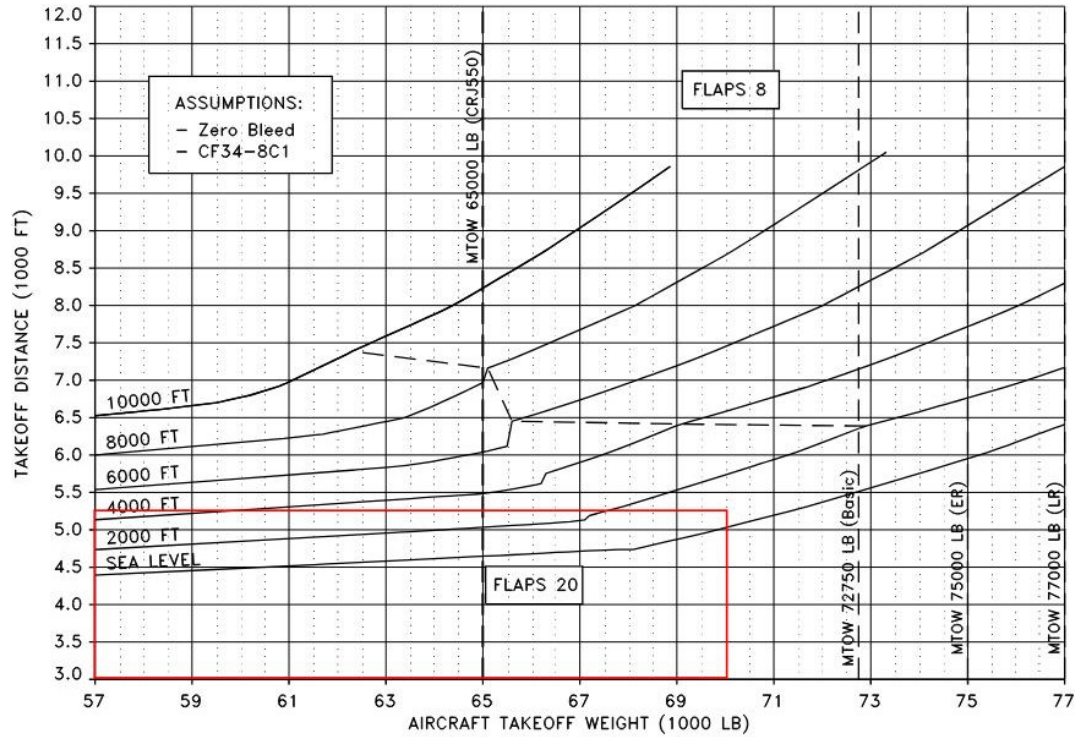
CSP B-020 - MASTER
EFFECTIVITY: **ON A/C ALL

00-03-02

Page 2
Dec 17/2019

CRJ700 - ISA +15

MHIRJ
AIRPORT PLANNING MANUAL



cd_15a15_LR.unl

Nov 28 2019 - SL

ba26a01 cgm gh dec2/2019

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

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

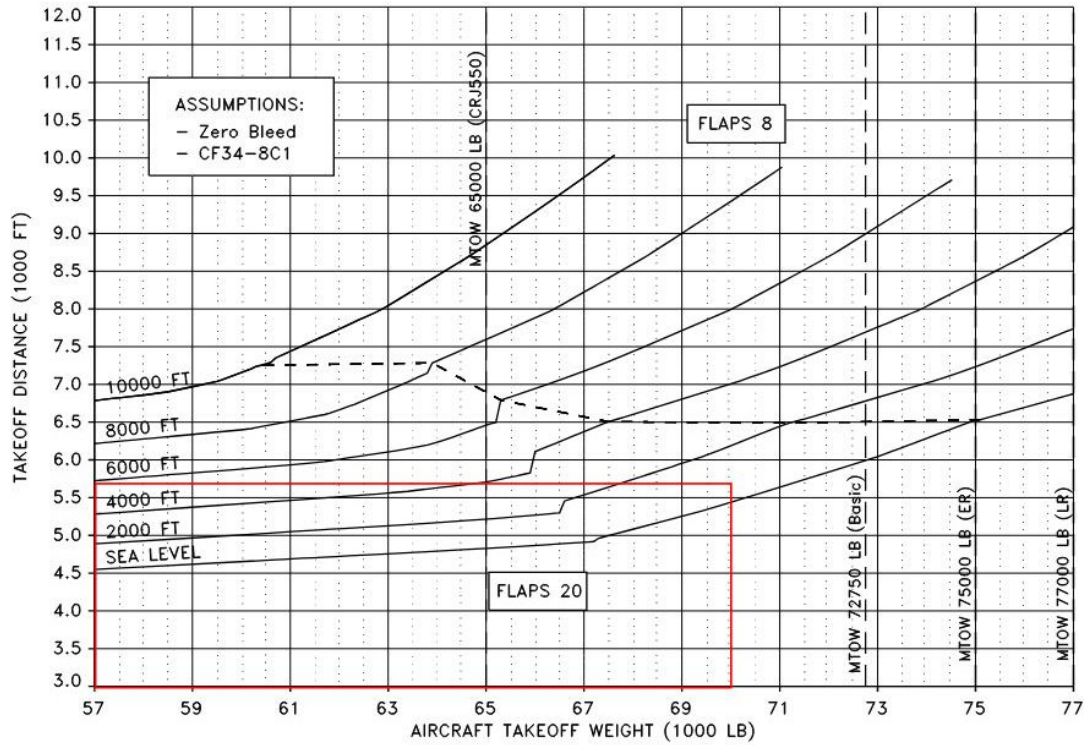
00-03-02

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Dec 17/2019

CRJ700 - ISA +20



AIRPORT PLANNING MANUAL



cd_10c20_LR.uni

Nov 28 2019 - SL

ba029a01.qgm, qb, 02-dec-2019

Take-Off Field Length - ISA + 20 Degrees C
Figure 3

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

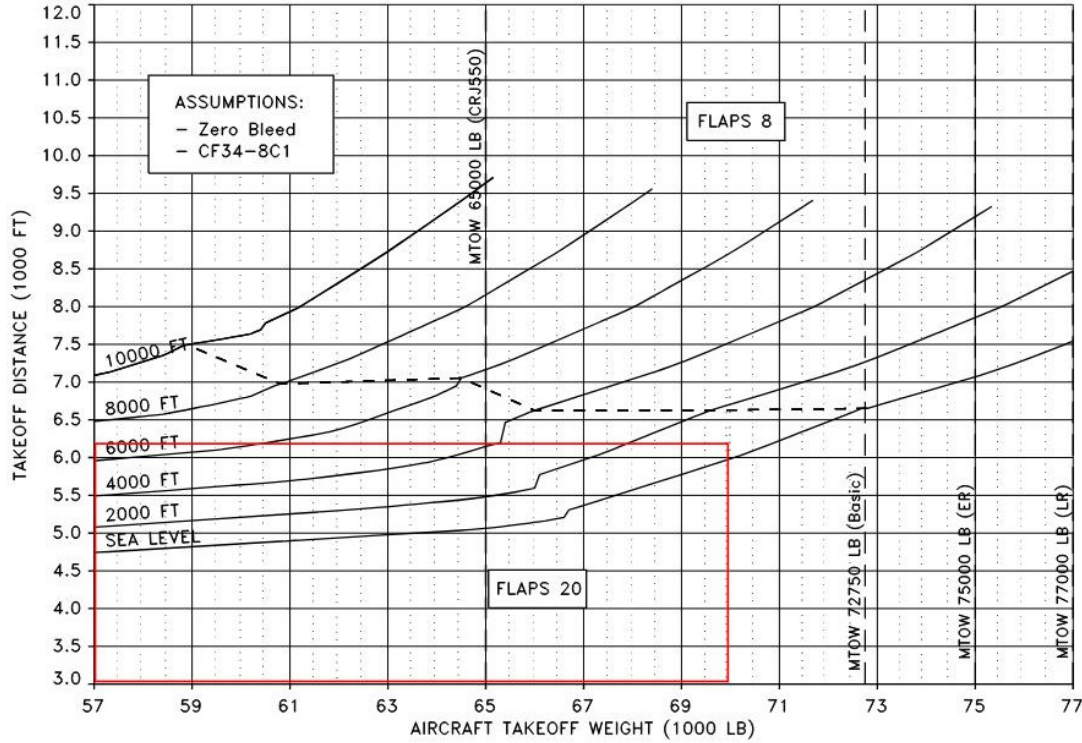
00-03-02

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CRJ700 - ISA +25



AIRPORT PLANNING MANUAL



ed_15a25_LR.uni

Nov 28 2019 - SL

ba077a01.cgm, gb, 02-dec-2019

Take-Off Field Length – ISA + 25 Degrees C
Figure 4

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

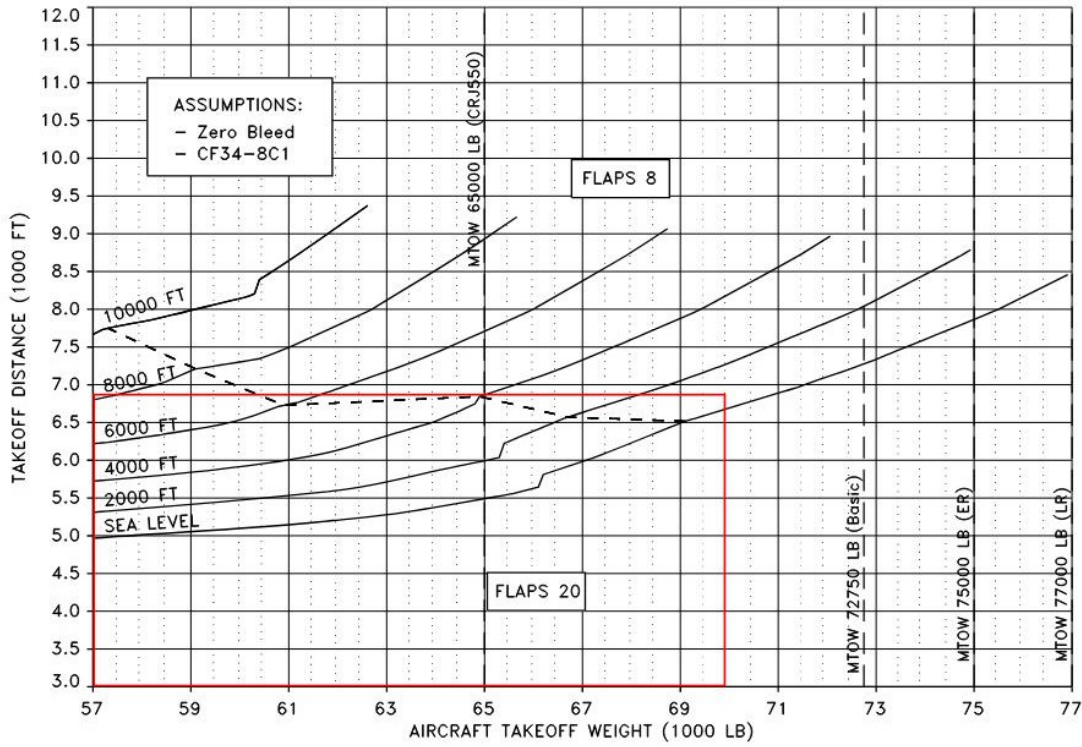
00-03-02

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CRJ700 - ISA +30



AIRPORT PLANNING MANUAL



cd_1ec30_LR.unl

Nov 28 2019 - 5L

9a078a01.cgm, gb, 02-dec-2019

Take-Off Field Length - ISA + 30 Degrees C
Figure 5

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

00-03-02

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Dec 17/2019

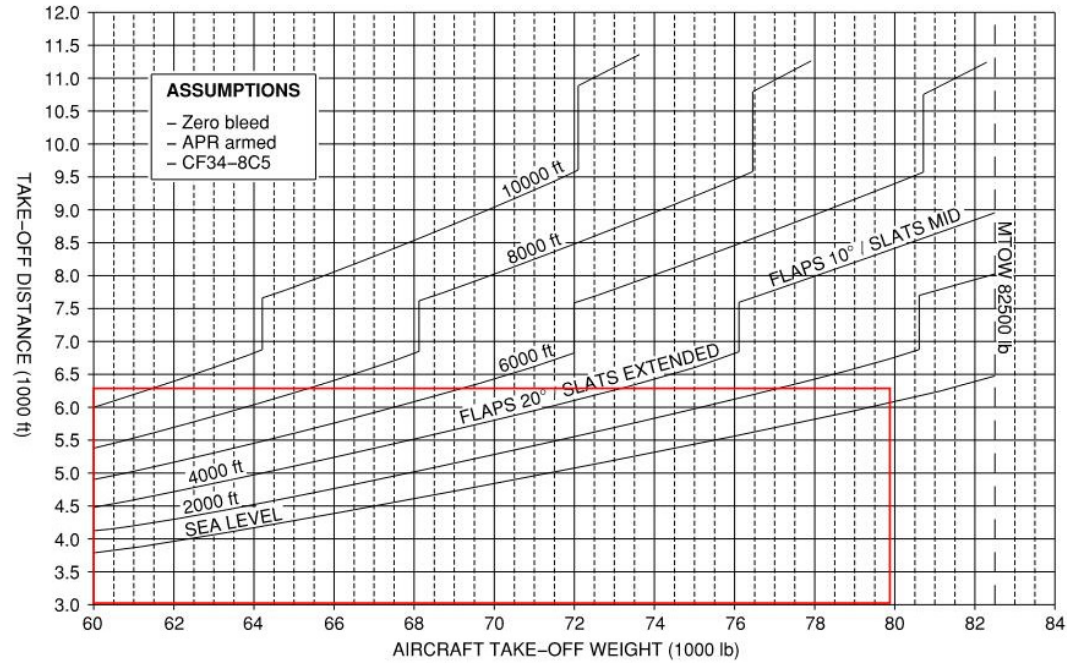
CRJ900 - ISA

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

Take-Off Field Length - ISA
Figure 1

00-03-02

Page 2
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bamc5201.cgm

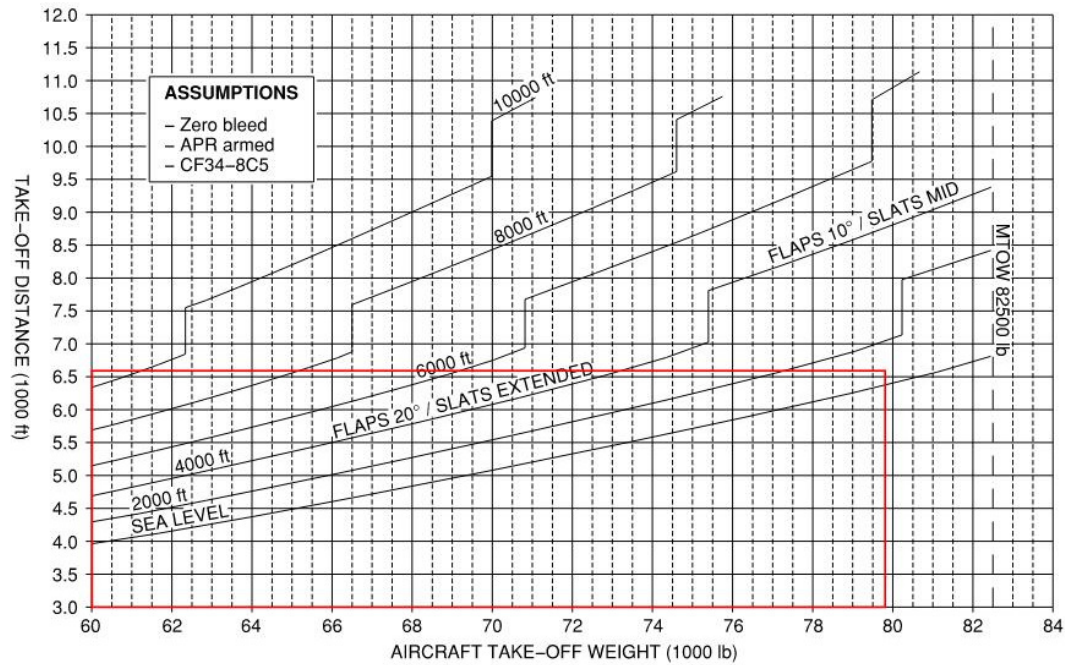
AIRPORT PLANNING MANUAL



CRJ900 - ISA +15

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

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



bakw1201.cgm

AIRPORT PLANNING MANUAL



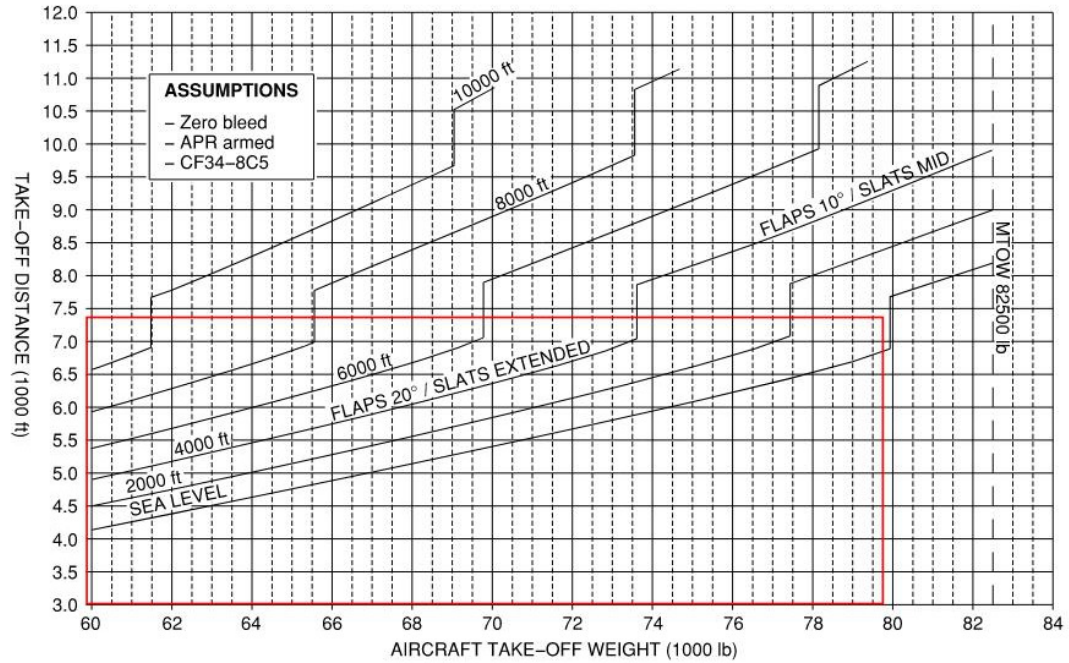
00-03-02

Page 3
Oct 20/2010

CRJ900 - ISA +20

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

Take-Off Field Length - ISA + 20 Degrees C
Figure 3



bakw2z01.cgm

00-03-02

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Oct 20/2010

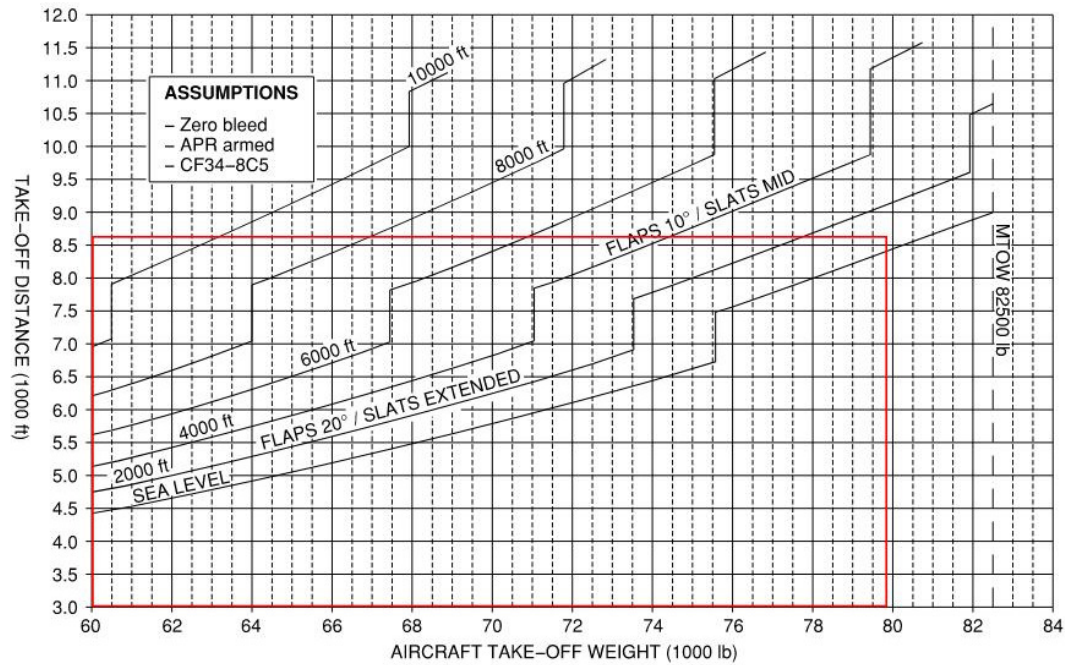
AIRPORT PLANNING MANUAL



CRJ900 - ISA +25

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

Take-Off Field Length - ISA + 25 Degrees C
Figure 4



bakw3z01.cgm

00-03-02

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AIRPORT PLANNING MANUAL



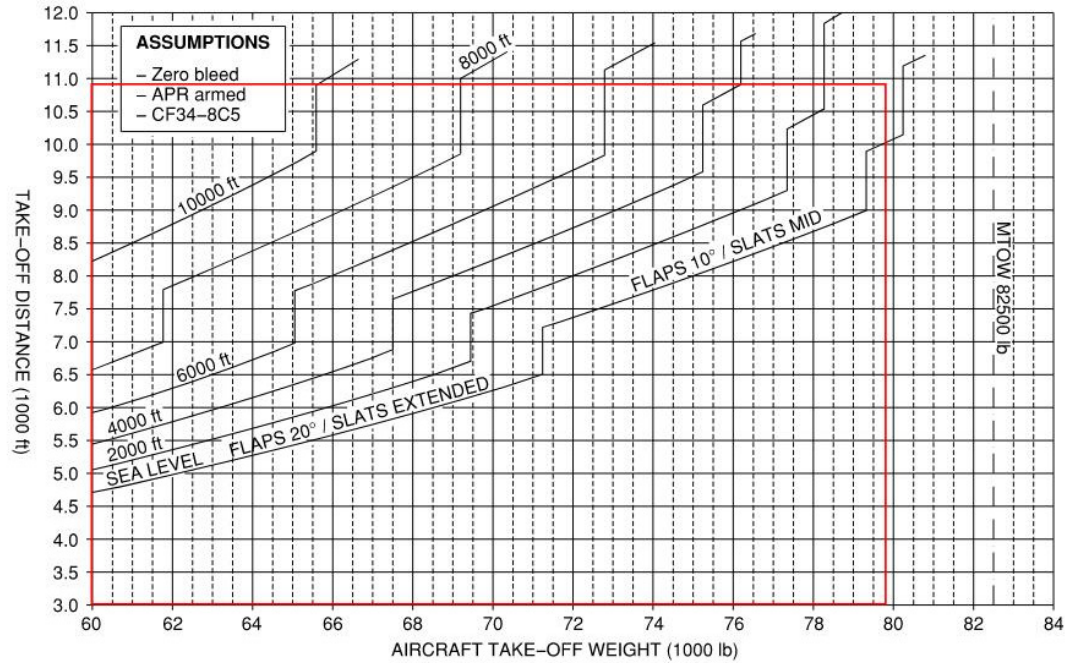
CRJ900 - ISA +30

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

Take-Off Field Length - ISA + 30 Degrees C
Figure 5

00-03-02

Page 6
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bakw4z01.cgm

AIRPORT PLANNING MANUAL



EMB145 ISA



3.3 FAR Takeoff Runway Length Requirements

TAKEOFF RUNWAY LENGTH REQUIREMENTS
FLAPS 9/22 T/O-1 MODE, NO ENGINE BLEED FOR AIR CONDITIONING
DRY AND LEVELED RUNWAY, ZERO WIND
ISA

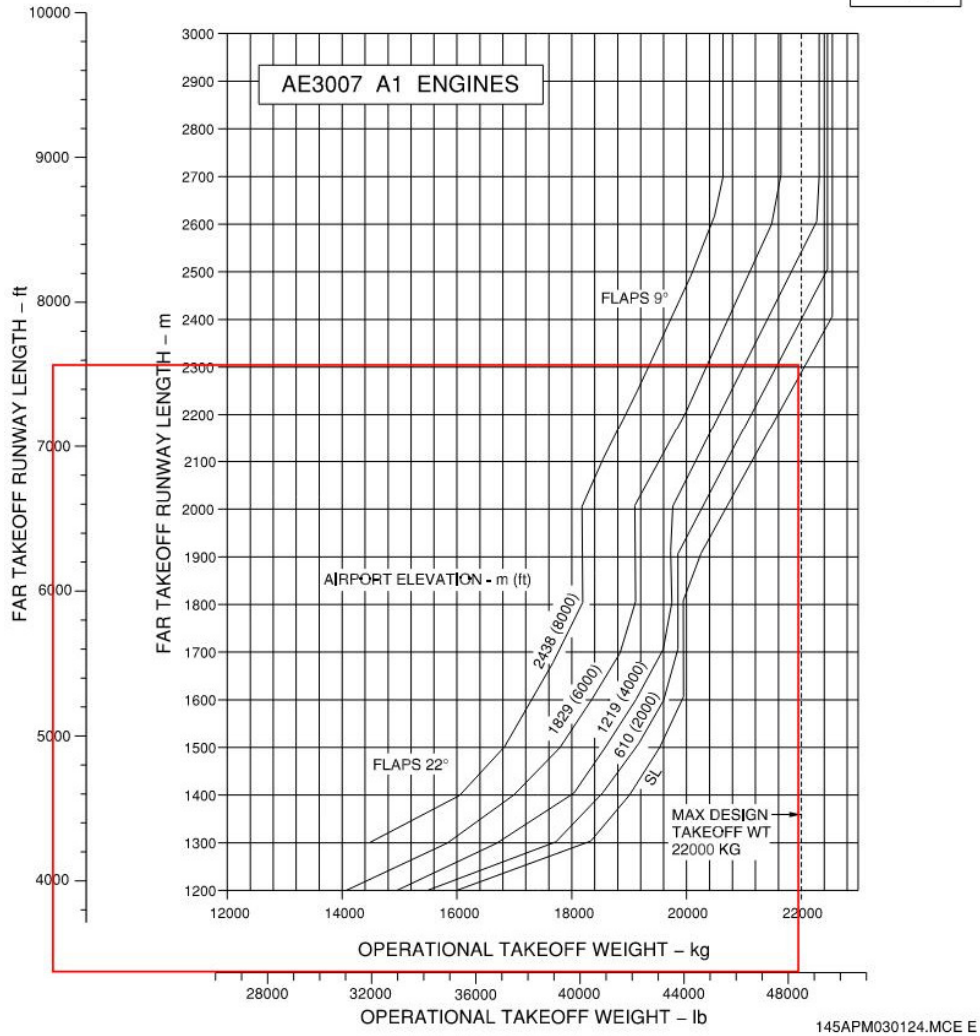
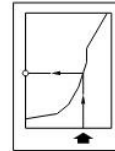


Figure 3.3.1 - FAR Takeoff Runway Length Requirements - ISA Conditions
Sheet 1

w/papm1100

EMB145 ISA +15



AIRPORT
PLANNING MANUAL

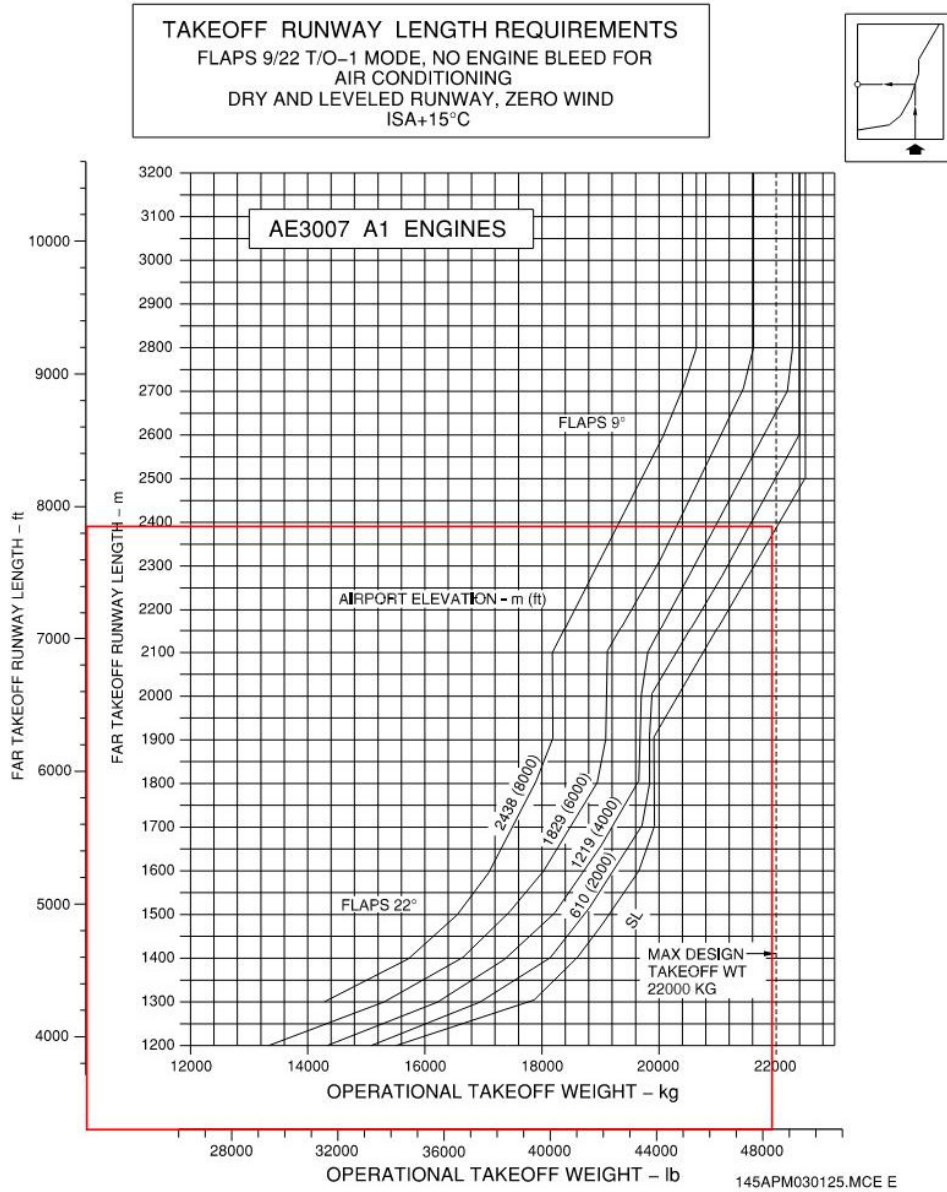


Figure 3.3.2 - FAR Takeoff Runway Length Requirements - ISA + 15°C Conditions
Sheet 1

w/papm1100

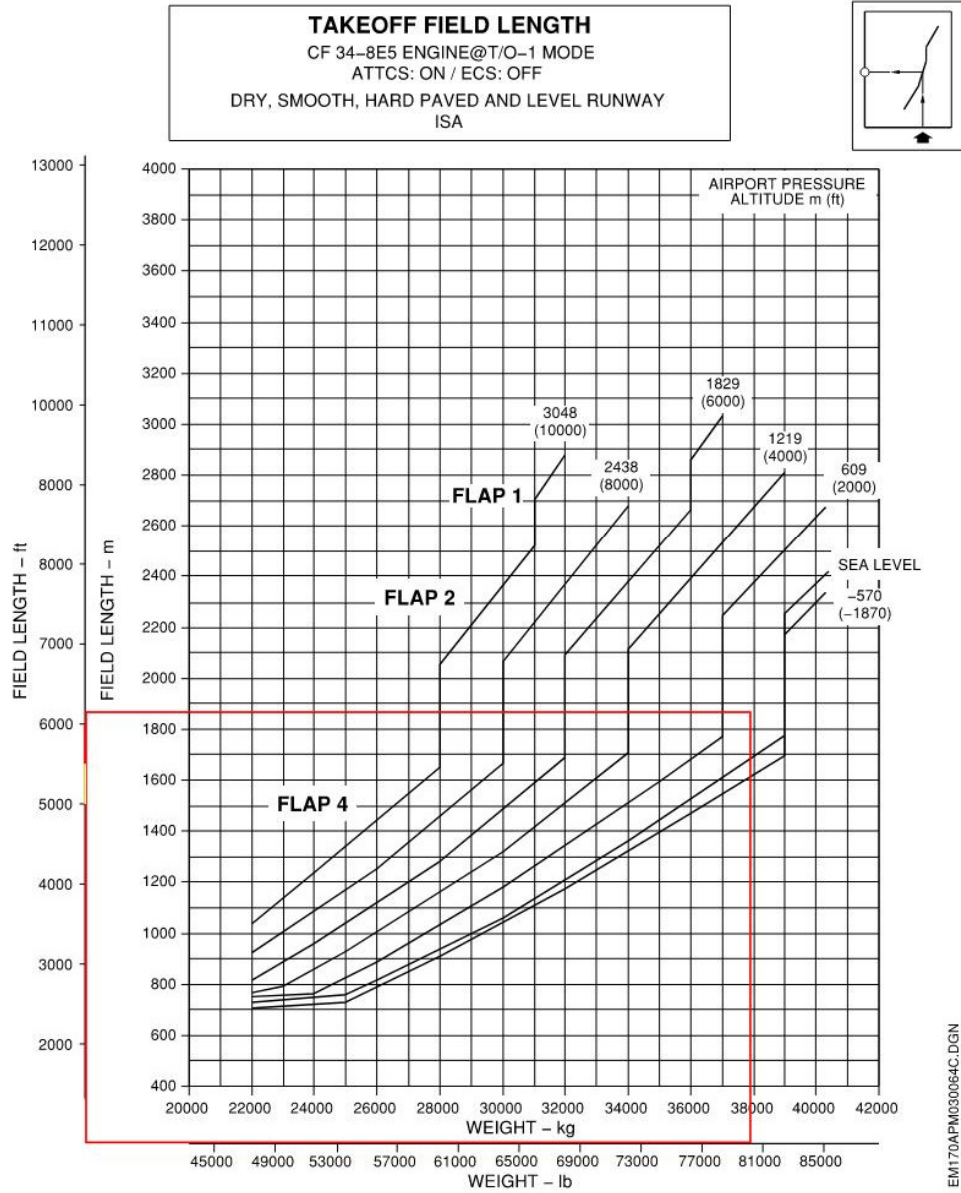
EMB175 ISA



EMBRAER 175

AIRPORT
PLANNING MANUAL

EFFECTIVITY: ALL
Takeoff Field Lengths - ISA Conditions
Figure 3.5



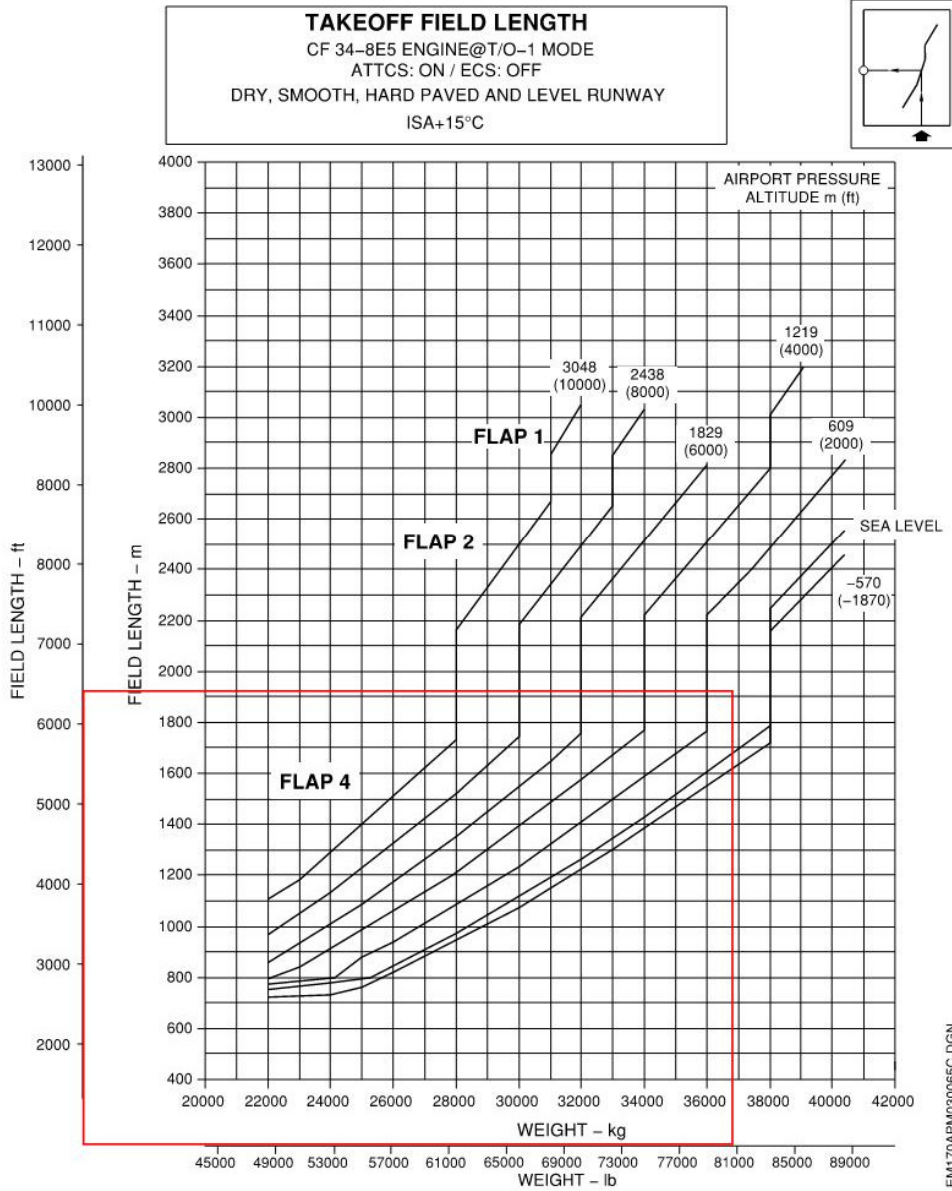
EMB175 ISA +15



EMBRAER 175

AIRPORT
PLANNING MANUAL

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



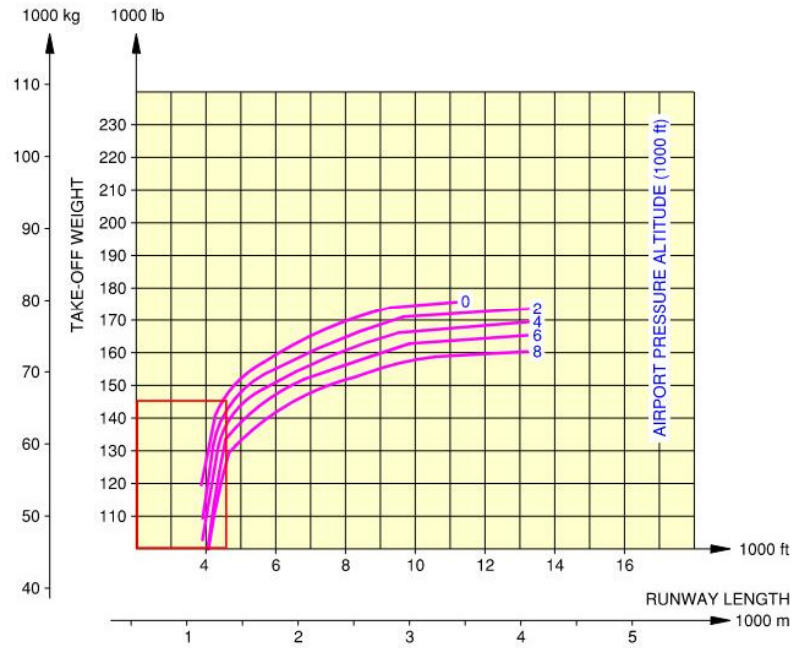
A319 ISA +15

A319

AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

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

NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030302_1_0030101_01_00

Take-Off Weight Limitation - ISA +15[deg]C (+27[deg]F) Conditions
CFM56 Series Engine
FIGURE-3-3-2-991-003-A01

3-3-2

Page 2
Dec 01/21

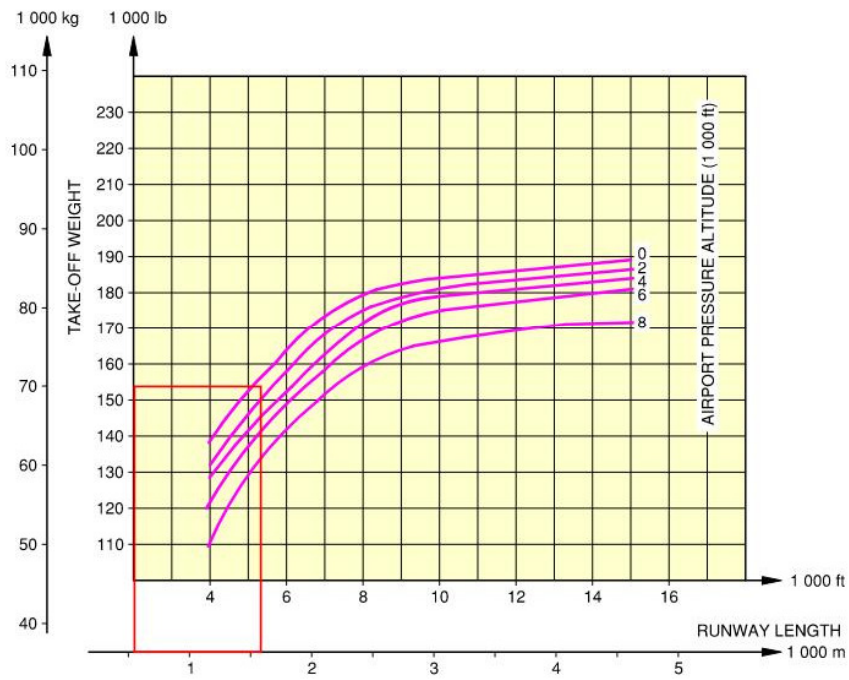
A320 ISA



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**ON A/C A320-200

NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030301_1_0050101_01_01

Take-Off Weight Limitation - ISA Conditions
CFM56 Series Engine
FIGURE-3-3-1-991-005-A01

3-3-1

Page 2
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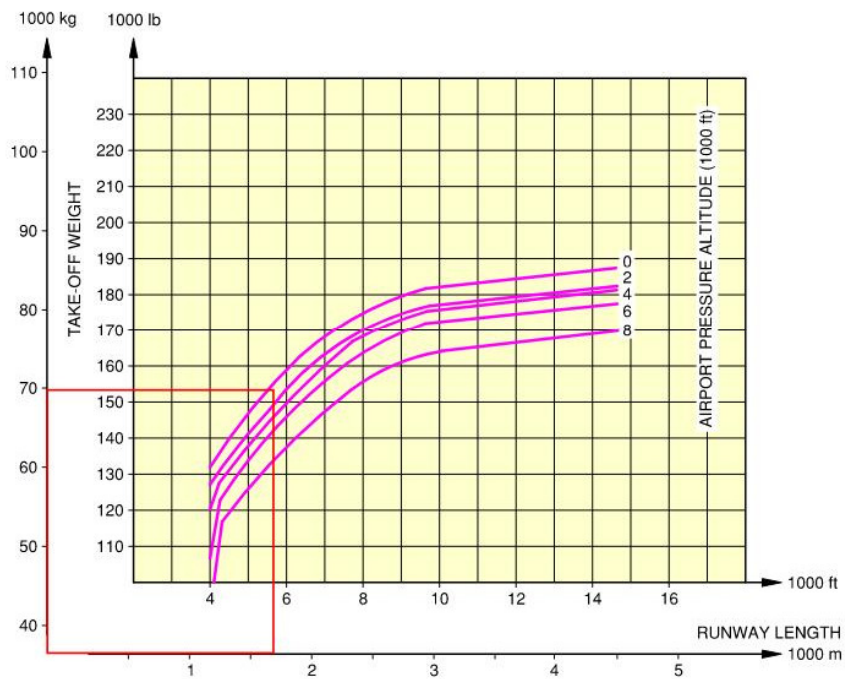
A320 ISA +15



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

**ON A/C A320-200

NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030302_1_0050101_01_01

Take-Off Weight Limitation - ISA +15[deg]C (+27[deg]F) Conditions
CFM56 Series Engine
FIGURE-3-3-2-991-005-A01

3-3-2

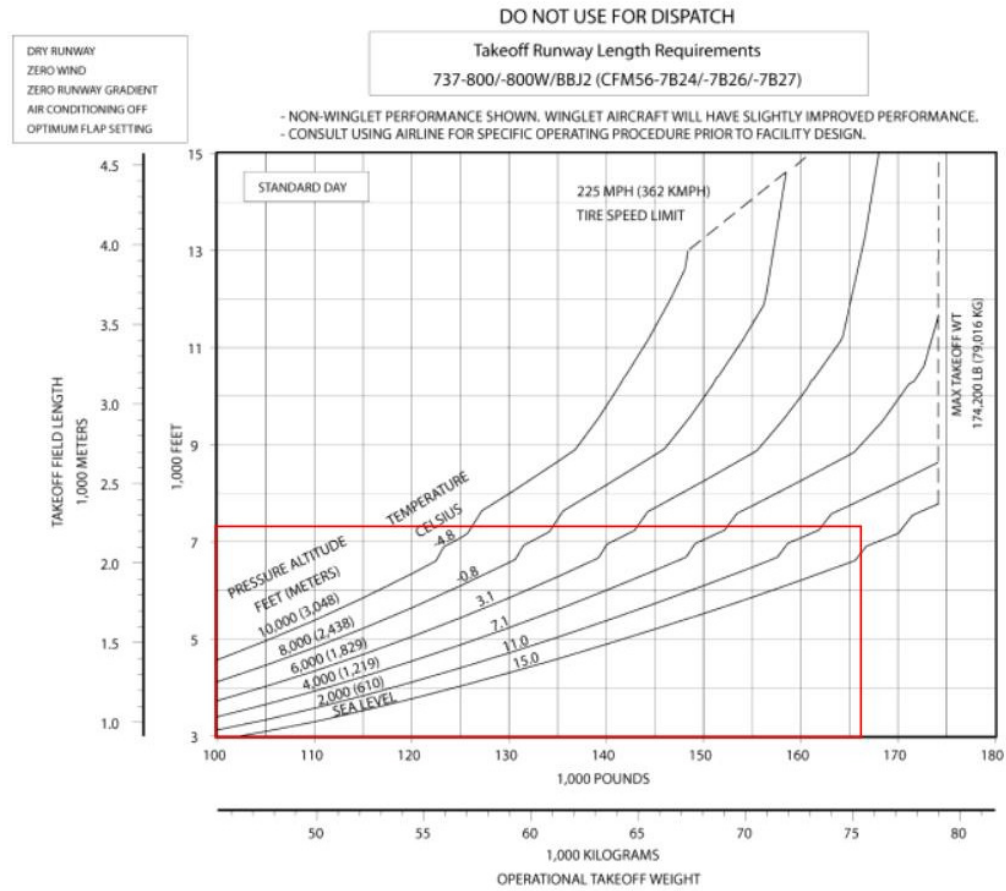
Page 2
Dec 01/21

B737 ISA

REV C

D6-58325-6
October 2021

3-67



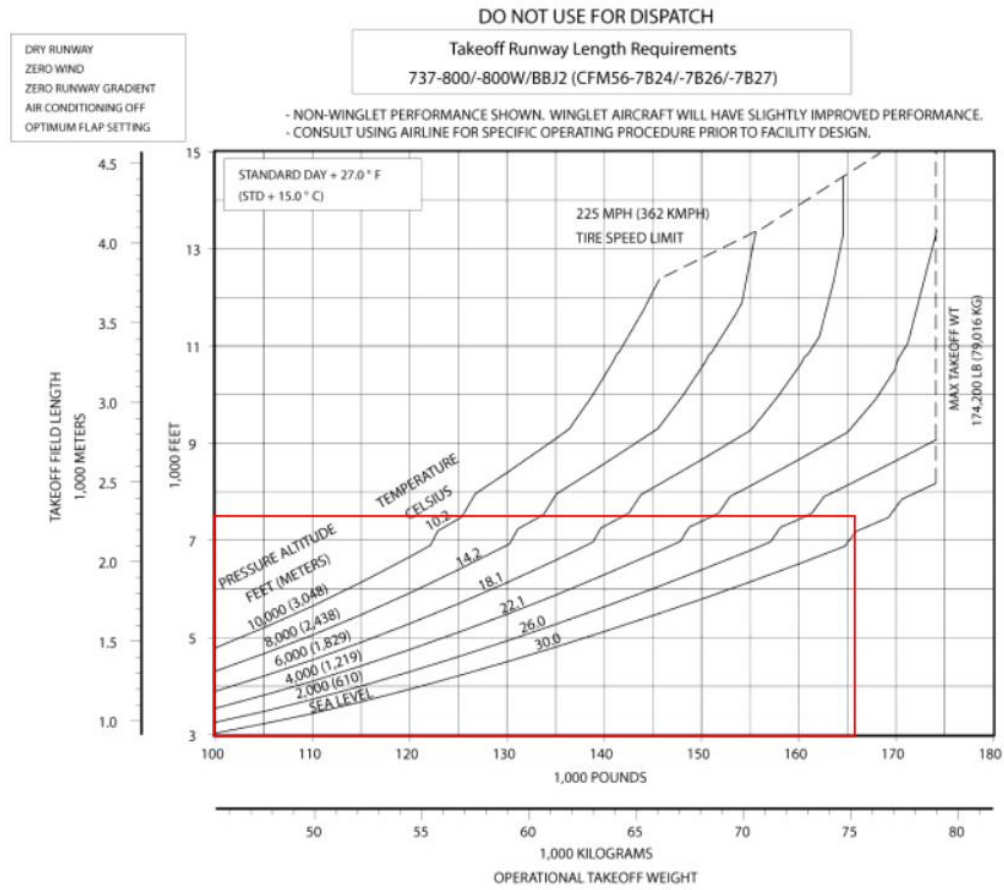
3.3.51 F.A.R. Takeoff Runway Length Requirements - Standard Day, Dry
Runway: Model 737-800, -800W, BBJ2, -800BCF (CFM56-7B24/-7B26/-
7B27 Engines at 26,000 LB SLST)

B737 ISA +15

REV C

D6-58325-6
October 2021

3-68



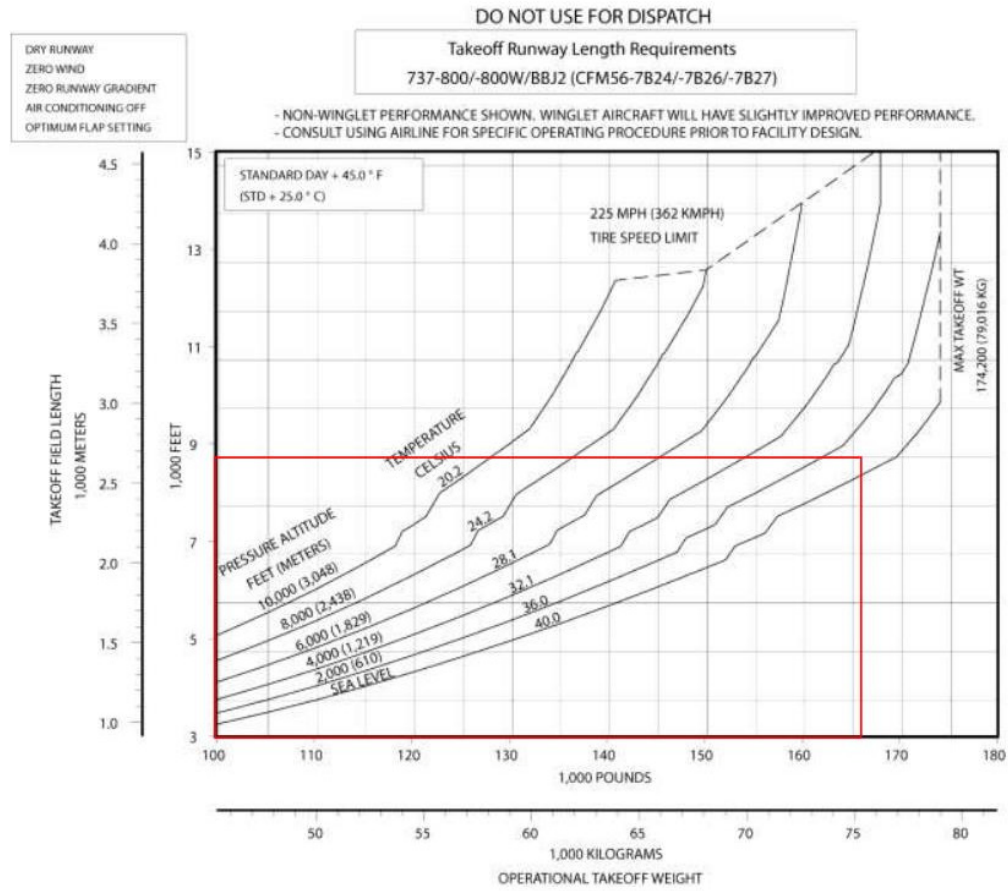
3.3.52 F.A.R. Takeoff Runway Length Requirements - Standard Day + 27°F (STD + 15°C), Dry Runway: Model 737-800, -800W, BBJ2, -800BCF (CFM56-7B24/-7B26/-7B27 Engines at 26,000 LB SLST)

B737 ISA +25

REV C

D6-58325-6
October 2021

3-69



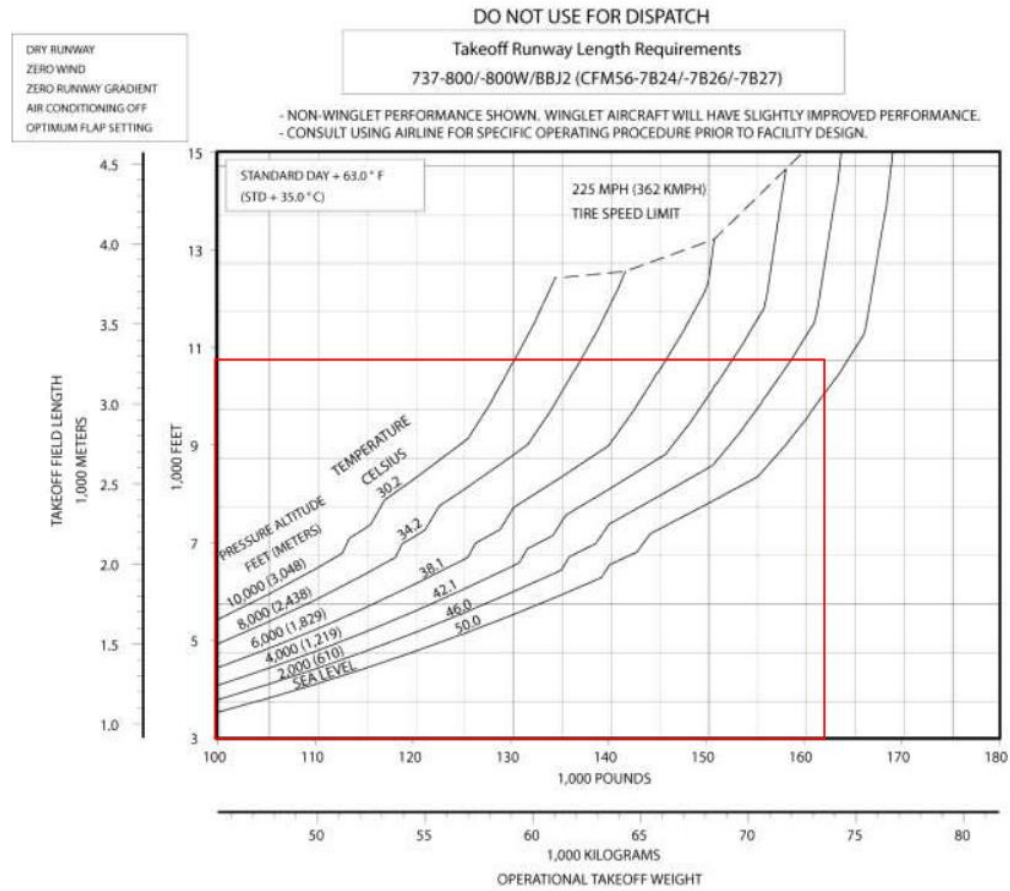
3.3.53 F.A.R. Takeoff Runway Length Requirements - Standard Day + 45°F (STD + 25°C), Dry Runway: Model 737-800, -800W, BBJ2, -800BCF (CFM56-7B24/-7B26/-7B27 Engines at 26,000 LB SLST)

B737 ISA +35

REV C

D6-58325-6
October 2021

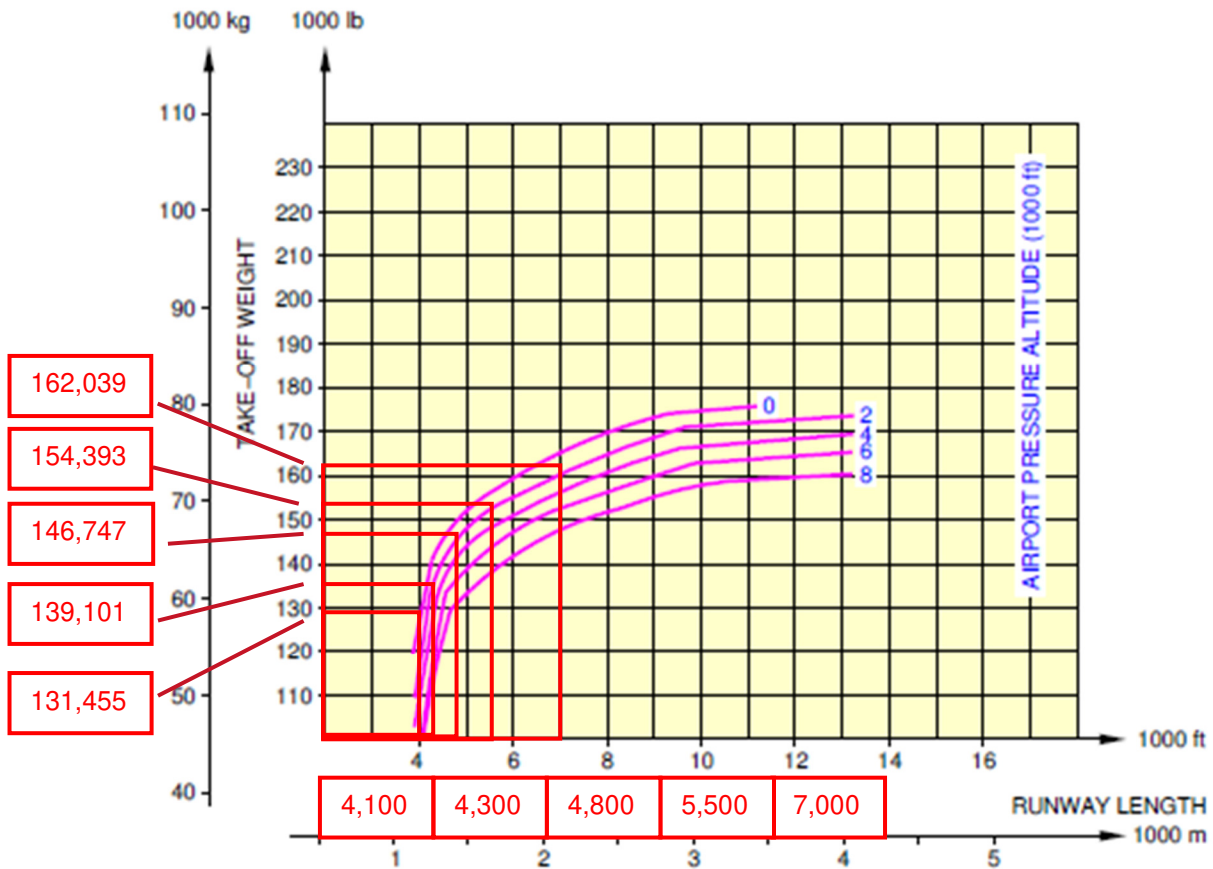
3-70



3.3.54 F.A.R. Takeoff Runway Length Requirements - Standard Day + 63°F (STD + 35 °C), Dry Runway: Model 737-800, -800W, BBJ2, -800BCF (CFM56-7B24/-7B26/-7B27 Engines at 26,000 LB SLST)

A319

**NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.**

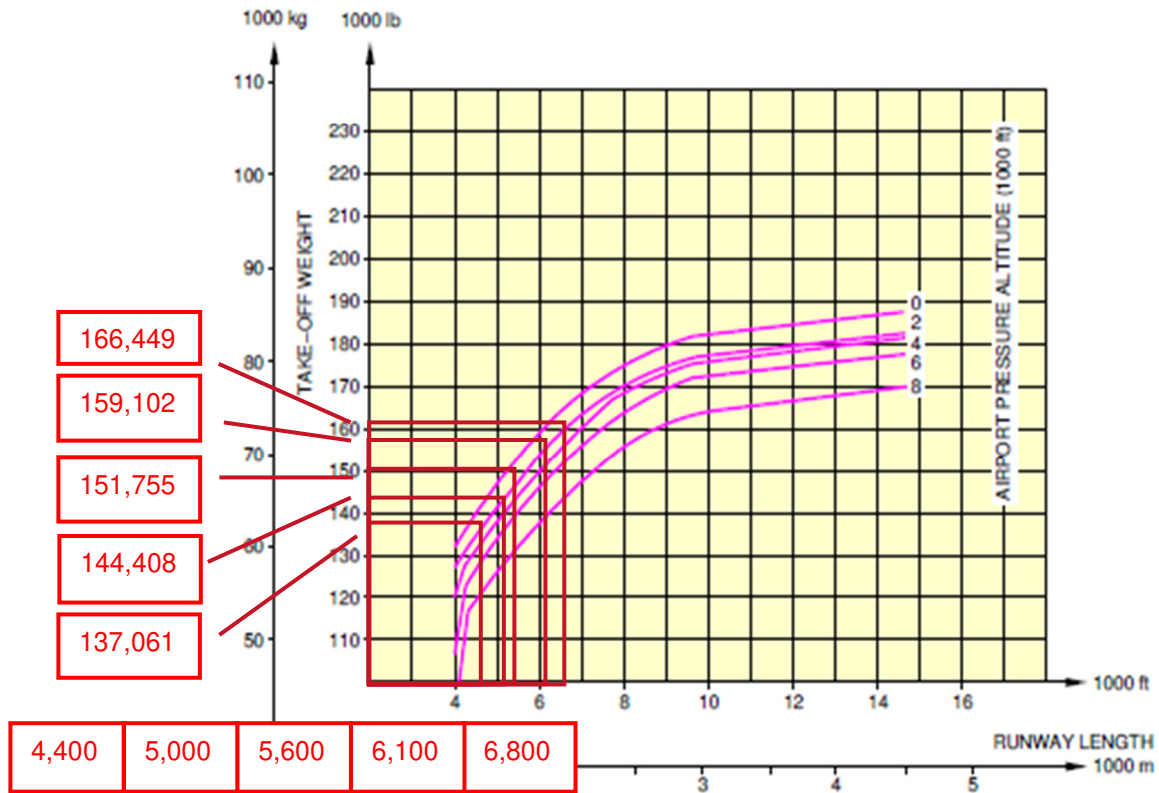


N_AC_030302_1_0030101_01_00

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

A320

NOTE: THESE CURVES ARE GIVEN FOR INFORMATION ONLY
THE APPROVED VALUES ARE STATED IN THE "OPERATING
MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.



N_AC_030302_1_0050101_01_01

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

Boeing 717

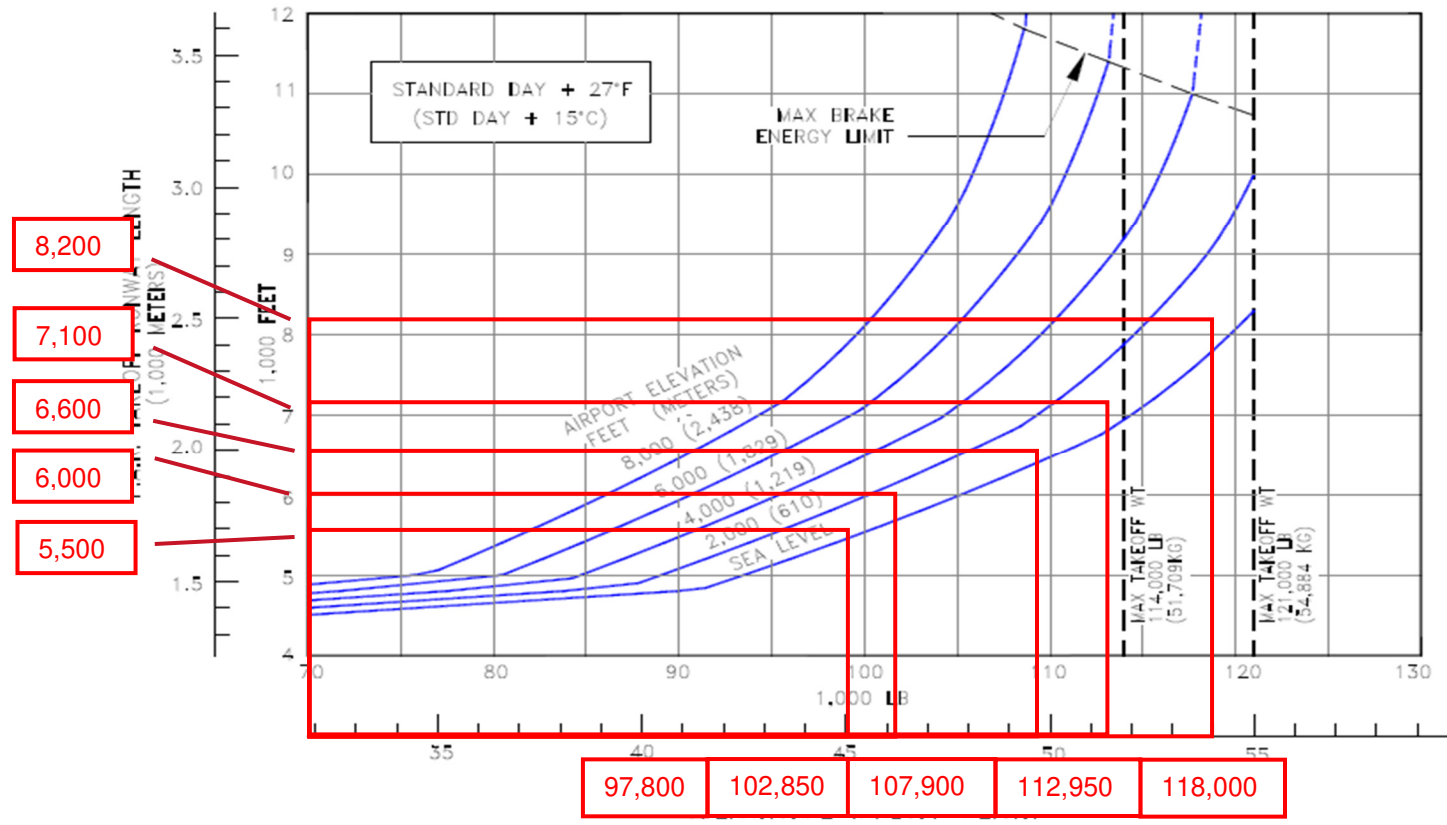
- * ZERO WIND, ZERO RUNWAY GRADIENT
- * DRY RUNWAY SURFACE
- * CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- * LINEAR INTERPOLATION BETWEEN ALTITUDES INVALID
- * LINEAR INTERPOLATION BETWEEN TEMPERATURES INVALID

3.3.2 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS -
 STANDARD DAY + 27°F (STD +15° C) - DRY RUNWAY
 MODEL 717-200 (B715 ENGINES AT 18,500 LB THRUST)

24 NOVEMBER 2014

D6-58330

REV B

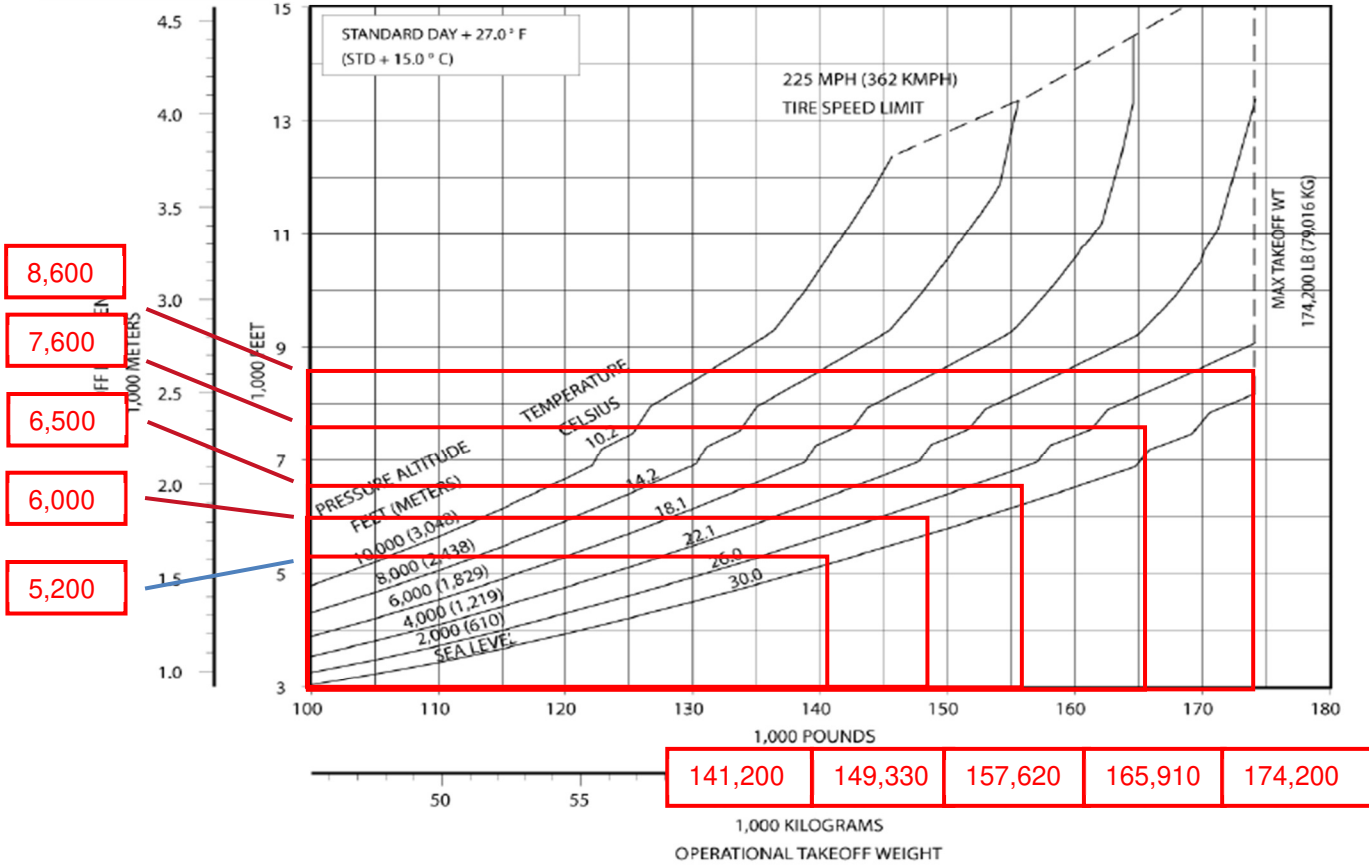


Boeing 737-800

DRY RUNWAY
ZERO WIND
ZERO RUNWAY GRADIENT
AIR CONDITIONING OFF
OPTIMUM FLAP SETTING

DO NOT USE FOR DISPATCH
Takeoff Runway Length Requirements
737-800/-800W/BBJ2 (CFM56-7B24/-7B26/-7B27)

- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY IMPROVED PERFORMANCE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN.



3.3.48

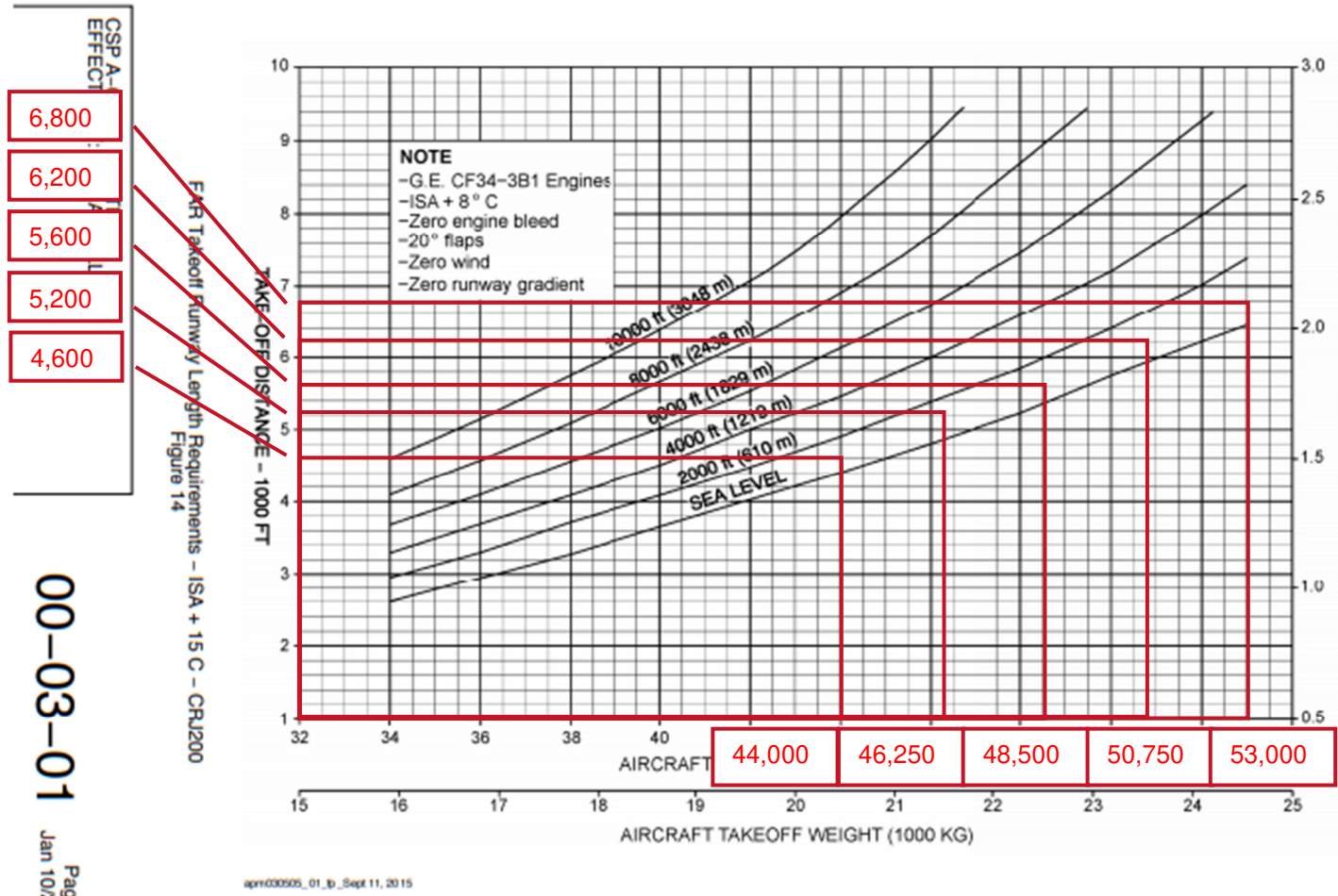
F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS
STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY

MODEL 737-800/-800W/BBJ2 (CFM56-7B24/-7B26/-7B27 ENGINES AT 28,000 LB SLST)

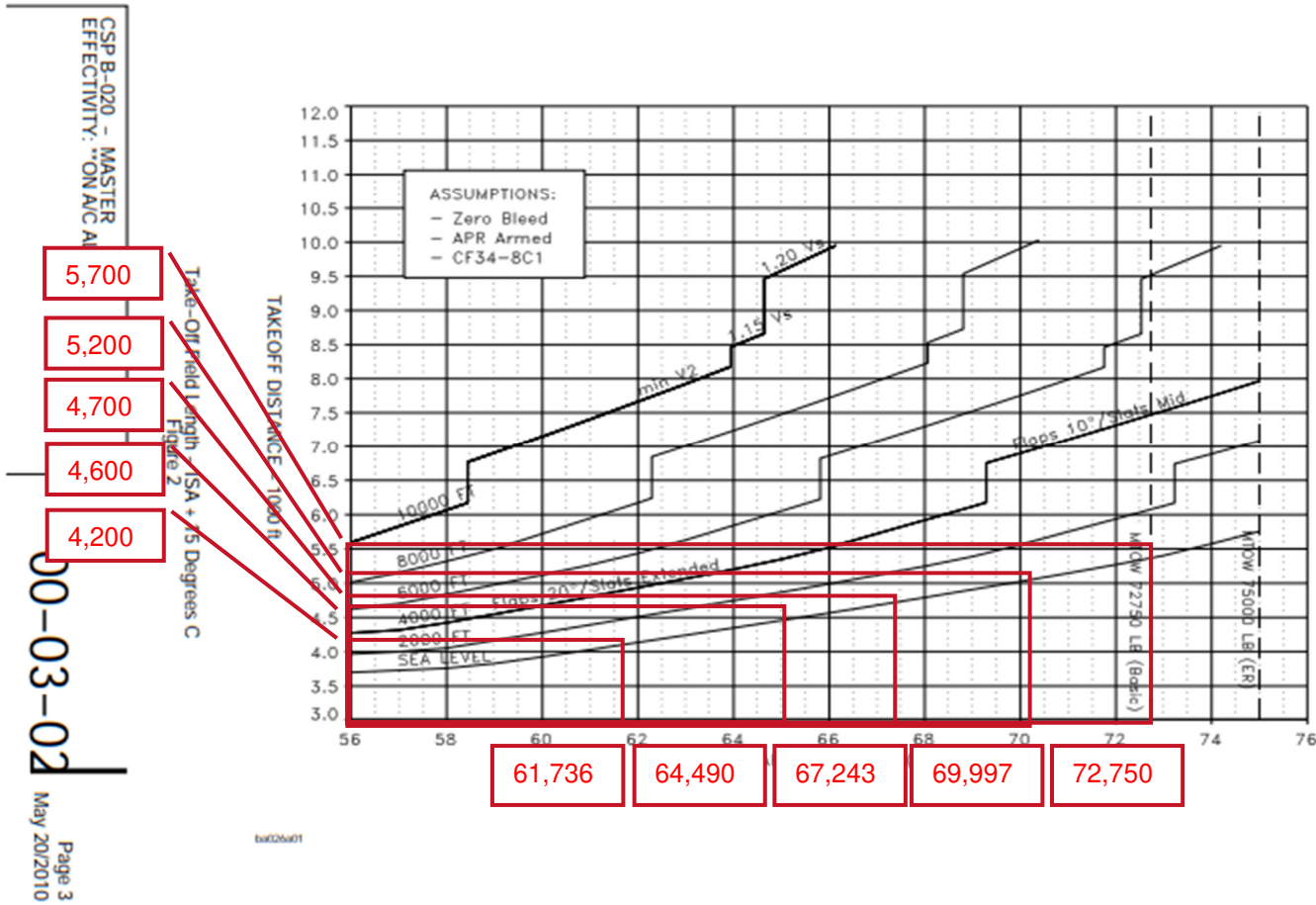
D6-58325-6

JULY 2010 151

CRJ200



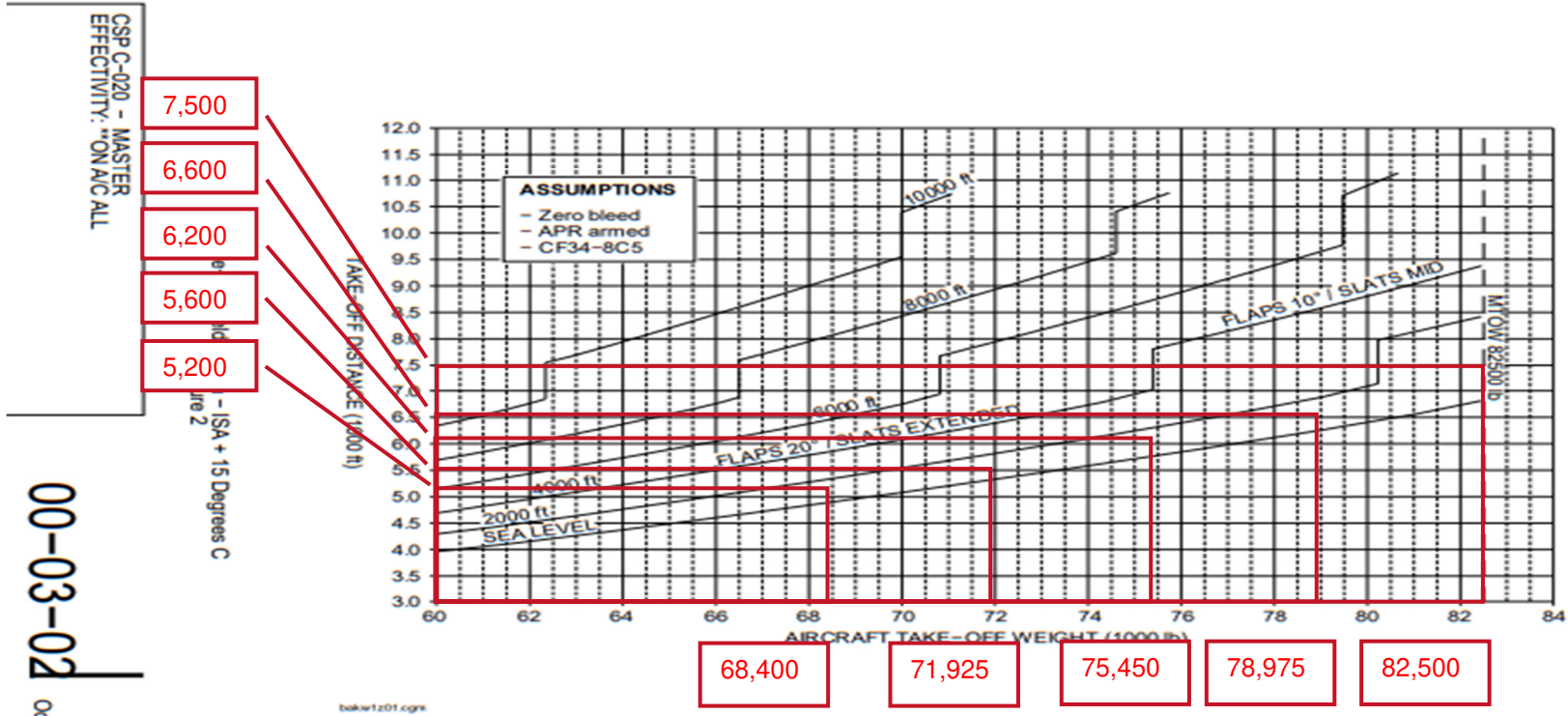
CRJ700



AIRPORT PLANNING MANUAL



CRJ900



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

7,500
6,600
6,200
5,600
5,200

ISA + 15 Degrees C

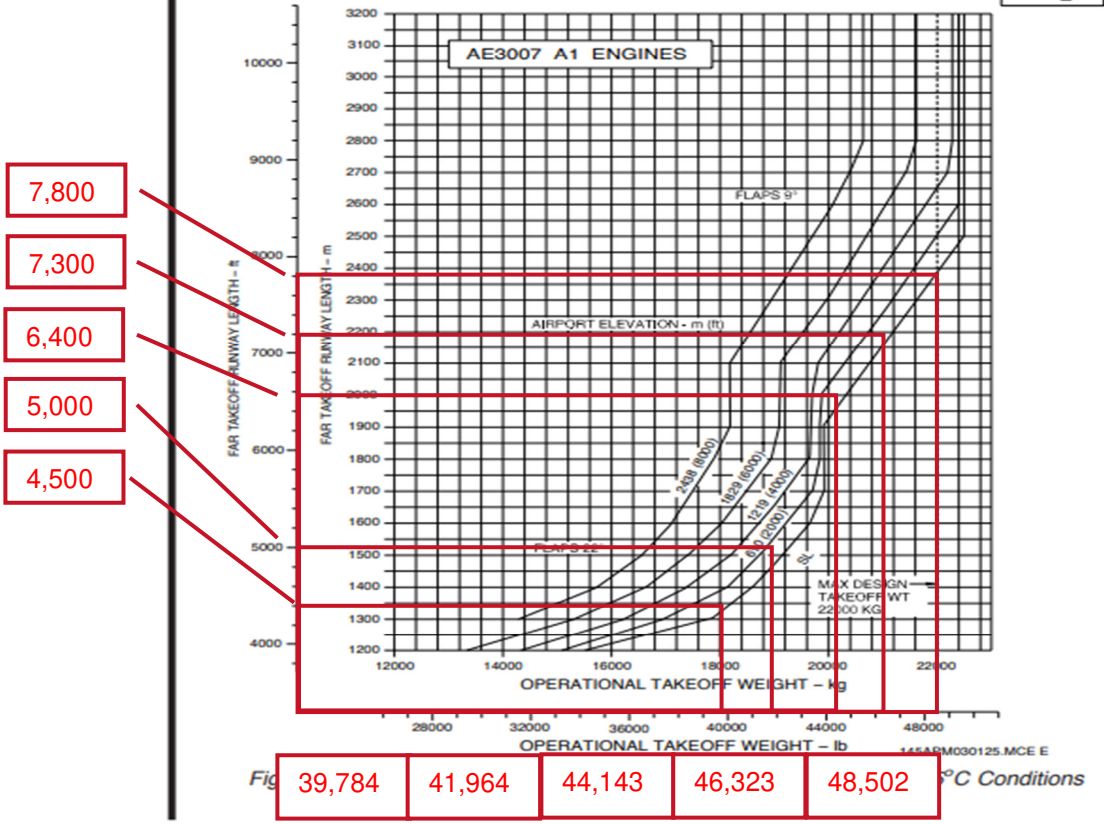
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AIRPORT PLANNING MANUAL



TAKEOFF RUNWAY LENGTH REQUIREMENTS
 FLAPS 9/22 T/O-1 MODE, NO ENGINE BLEED FOR AIR CONDITIONING
 DRY AND LEVELED RUNWAY, ZERO WIND
 ISA+15°C



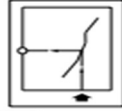
w/10/11/00



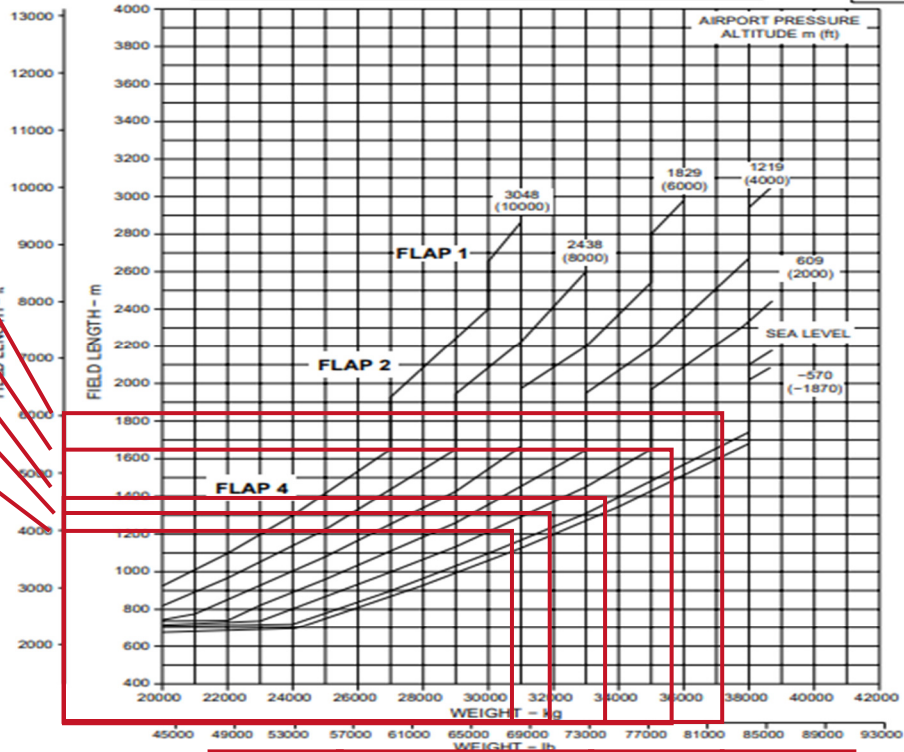
EMBRAER 170 AIRPORT PLANNING MANUAL

EMB170

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



- 6,000
- 5,600
- 4,500
- 4,300
- 4,000



- 67,462
- 71,099
- 74,737
- 78,374
- 82,012

EFFECTIVITY: ALL

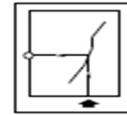
Section 3
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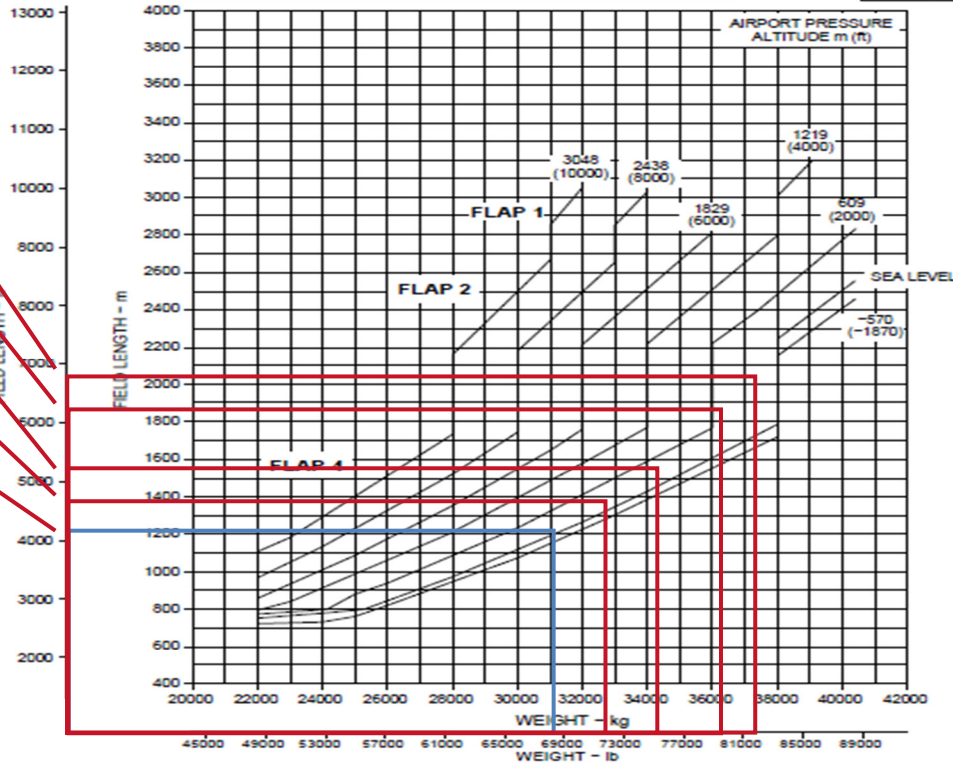
EMBRAER 175 AIRPORT PLANNING MANUAL

EMB175

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



- 6,700
- 6,300
- 5,400
- 4,700
- 4,200



68,563 72,091 75,618 79,146 82,673

EFFECTIVITY: ALL

Section 3
 Page 3-9
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