#### 3.0 AIRPLANE PERFORMANCE

- 3.1 General Information
- 3.2 Payload/Range for Long Range Cruise
- 3.3 F.A.R. and J.A.R. Takeoff Runway Length Requirements
- 3.4 F.A.R. Landing Runway Length Requirements

#### 3.0 AIRPLANE PERFORMANCE

#### 3.1 General Information

The graphs in Section 3.2 provide information on operational empty weight (OEW) and payload, trip range, brake release gross weight, and fuel limits for airplane models with the different engine options. To use these graphs, if the trip range and zero fuel weight (OEW + payload) are known, the approximate brake release weight can be found, limited by fuel quantity.

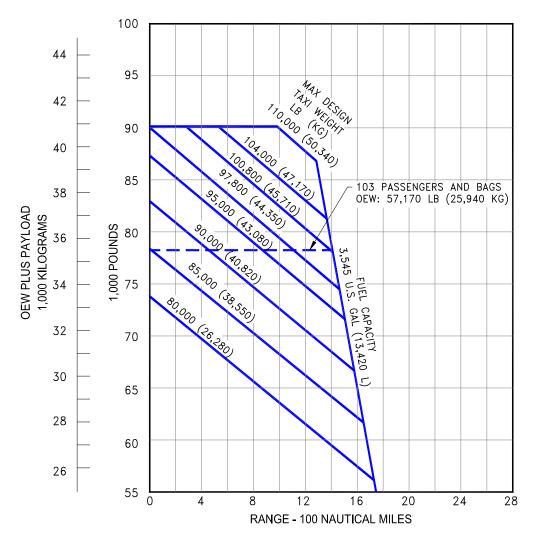
The graphs in Section 3.3 provide information on F.A.R. takeoff runway length requirements with the different engines at different pressure altitudes. Maximum takeoff weights shown on the graphs are the heaviest for the particular airplane models with the corresponding engines. Standard day temperatures for pressure altitudes shown on the F.A.R. takeoff graphs are given below:

PRESSURE ALTITUDE		STANDARD DAY TEMP	
FEET	METERS	0F	оС
0	0	59.0	15.00
2,000	610	51.9	11.04
4,000	1,219	44.7	7.06
6,000	1,829	37.6	3.11
8,000	2,438	30.5	-0.85

For airplanes which are governed by the European Joint Airworthiness Authorities (JAA), the wet runway performance is shown in accordance with JAR-OPS 1 Subpart F, with wet runways defined in Paragraph 1.480(a)(10). Skid-resistant runways (grooved or PFC treated) per FAA or ICAO specifications exhibit runway length requirements that remove some or all of the length penalties associated with smooth (non-grooved) runways. Under predominantly wet conditions, the wet runway performance characteristics may be used to determine runway length requirements, if it is longer than the dry runway performance requirements.

The graphs in Section 3.4 provide information on landing runway length requirements for different airplane weights and airport altitudes. The maximum landing weights shown are the heaviest for the particular airplane model.

- \* DOMESTIC RESERVES
- \* JT9D-7 ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 30,000 FEET (9,150 METERS)
  \* CONSULT WITH USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

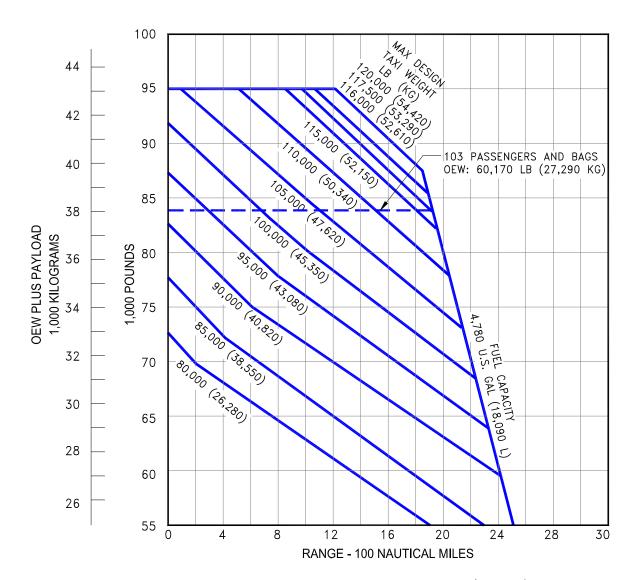


\* FOR TAKEOFF WEIGHT, SUBTRACT 500 LB (227 KG) FROM TAXI WEIGHT

#### PAYLOAD/RANGE FOR LONG-RANGE CRUISE 3.2.1

MODEL 737-100 (JT8D-7 ENGINES)

- \* DOMESTIC RESERVES
- \* JT9D-9/9A ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 30,000 FEET (9,150 METERS)
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

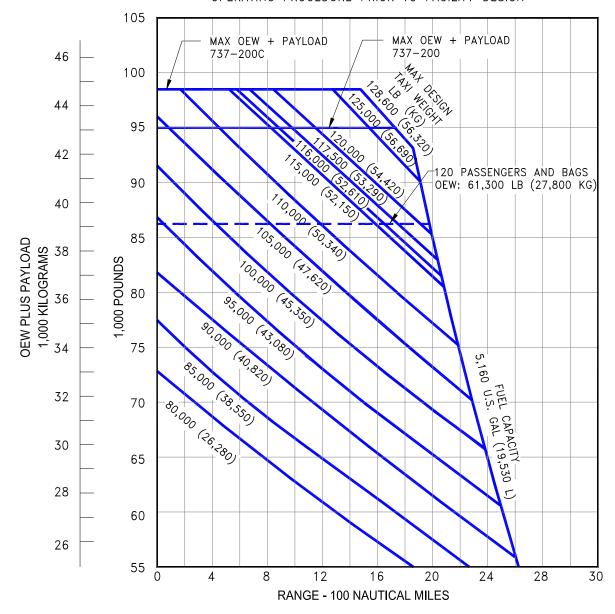


\* FOR TAKEOFF WEIGHT, SUBTRACT 500 LB (227 KG) FROM TAXI WEIGHT

#### 3.2.2 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-200 (JT8D-9/9A ENGINES)

- \* DOMESTIC RESERVES
- \* JT9D-15/15A ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 30,000 FEET (9,150 METERS)
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

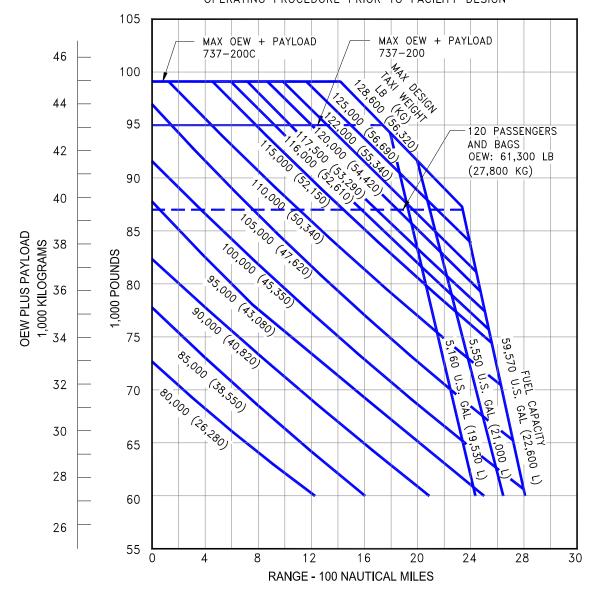


\* FOR TAKEOFF WEIGHT, SUBTRACT 500 LB (227 KG) FROM TAXI WEIGHT

#### 3.2.3 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL ADVANCED 737-200 (JT8D-15/15A ENGINES)

- \* DOMESTIC RESERVES
- \* JT9D-17/17A ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 30,000 FEET (9,150 METERS)
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



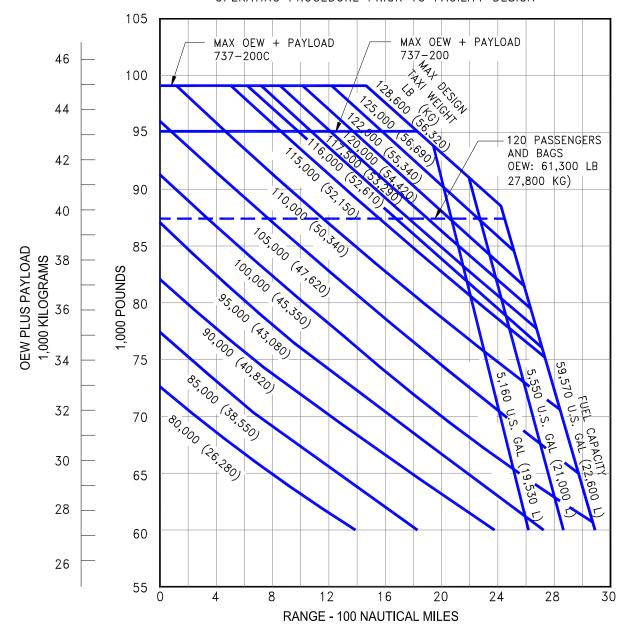
\* FOR TAKEOFF WEIGHT, SUBTRACT 500 LB (227 KG) FROM TAXI WEIGHT

#### 3.2.4 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL ADVANCED 737-200 (JT8D-17/17A ENGINES)

- \* DOMESTIC RESERVES

- JT9D-17R/17AR ENGINES
  STANDARD DAY, ZERO WIND
  LRC AT 30,000 FEET (9,150 METERS)
  CONSULT WITH USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

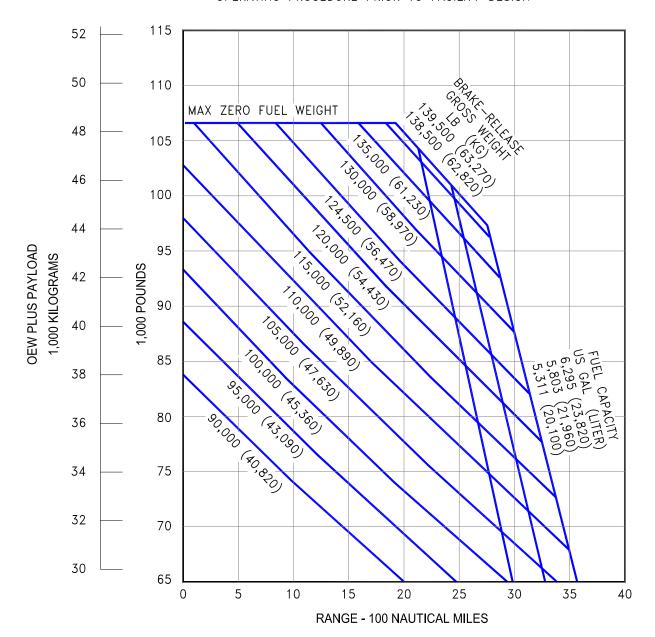


\* FOR TAKEOFF WEIGHT, SUBTRACT 500 LB (227 KG) FROM TAXI WEIGHT

#### 3.2.5 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

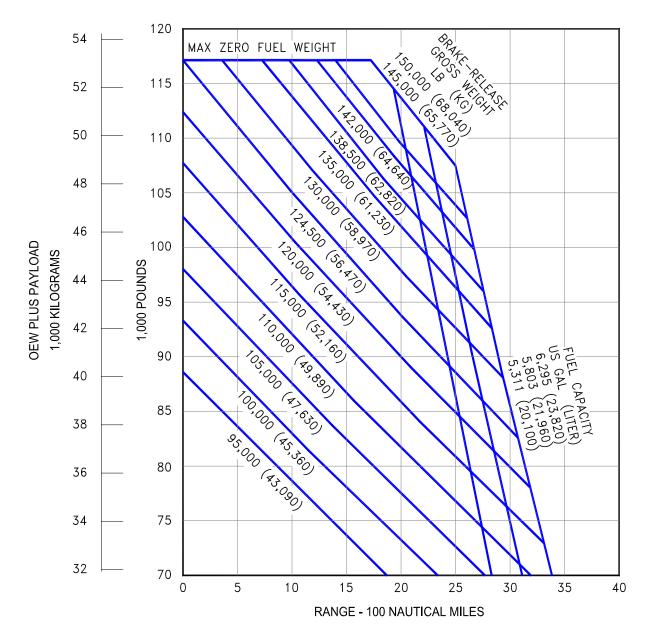
MODEL ADVANCED 737-200 (JT8D-17R/17AR ENGINES)

- \* DOMESTIC RESERVES
- \* CFM56-3B-1 OR CFM56-3B-2 ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 31,000/35,000 FEET
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



## 3.2.6 PAYLOAD/RANGE FOR LONG-RANGE CRUISE MODEL 737-300

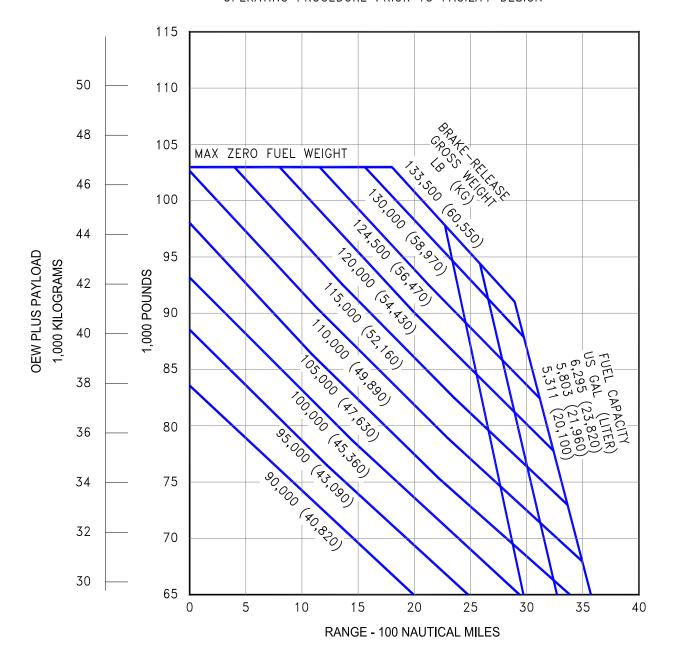
- \* DOMESTIC RESERVES
- \* CFM56-3B-2 OR CFM56-3C-1 ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 31,000/35,000 FEET
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



#### 3.2.7 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-400

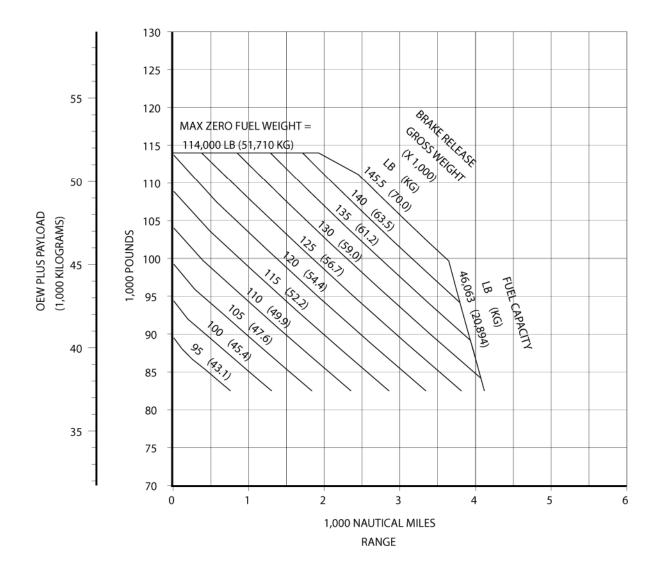
- \* DOMESTIC RESERVES
- \* CFM56-3B-1 ENGINES
- \* STANDARD DAY, ZERO WIND
- \* LRC AT 31,000/35,000 FEET
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



## 3.2.8 PAYLOAD/RANGE FOR LONG-RANGE CRUISE MODEL 737-500

Payload/Range 737-600 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEED
- TYPICAL MISSION RULES
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

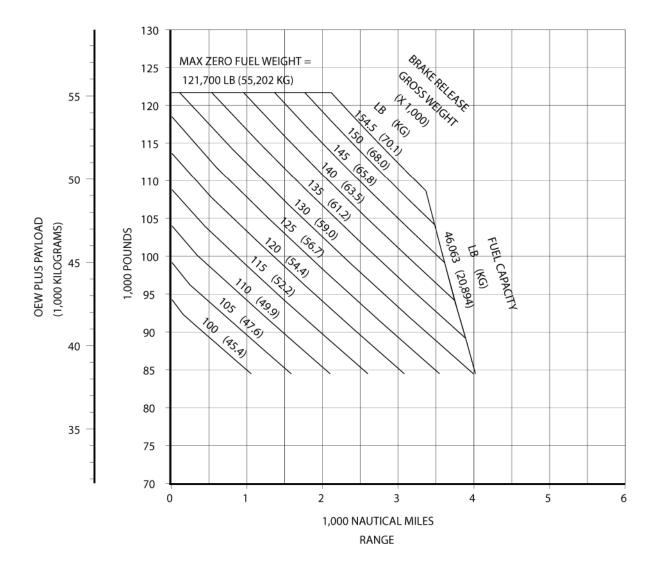


#### 3.2.9 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-600

### Payload/Range 737-700/-700W (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEEDS
- TYPICAL MISSION RULES
- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY GREATER RANGE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

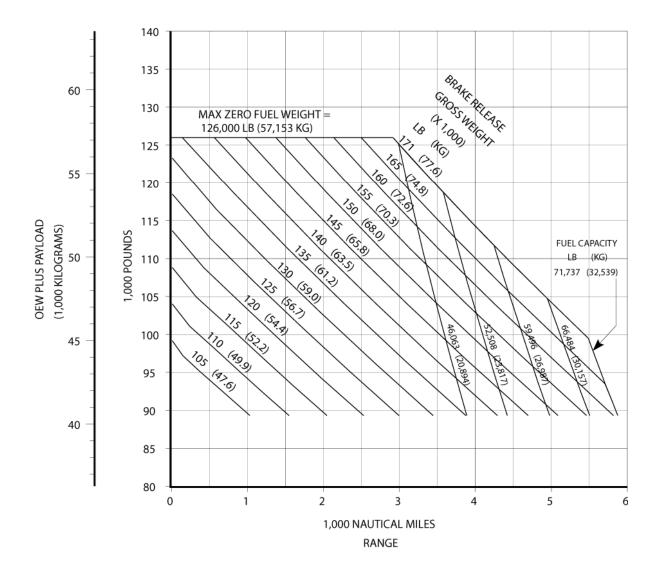


## 3.2.10 PAYLOAD/RANGE FOR LONG-RANGE CRUISE MODEL 737-700

#### Payload/Range

737-700ER/-700ERW/-700C/-700CW/BBJ1 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEEDS
- TYPICAL MISSION RULES
- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY GREATER RANGE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

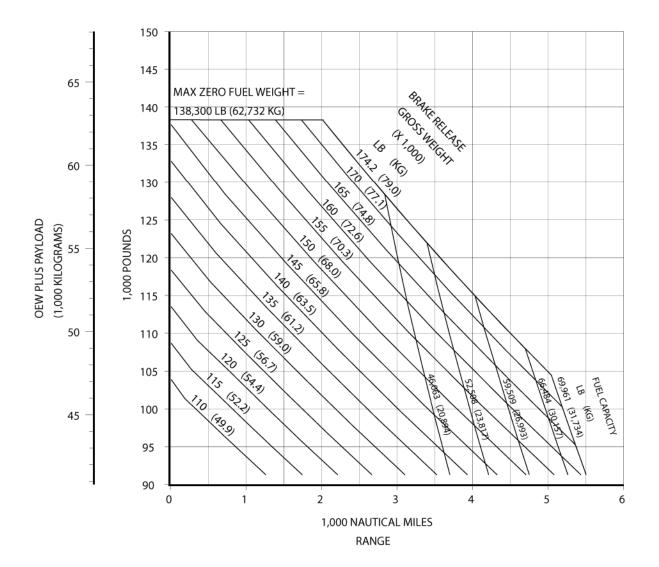


#### 3.2.11 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-700ER

### Payload/Range 737-800/800W/BBJ2 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEEDS
- TYPICAL MISSION RULES
- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY GREATER RANGE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

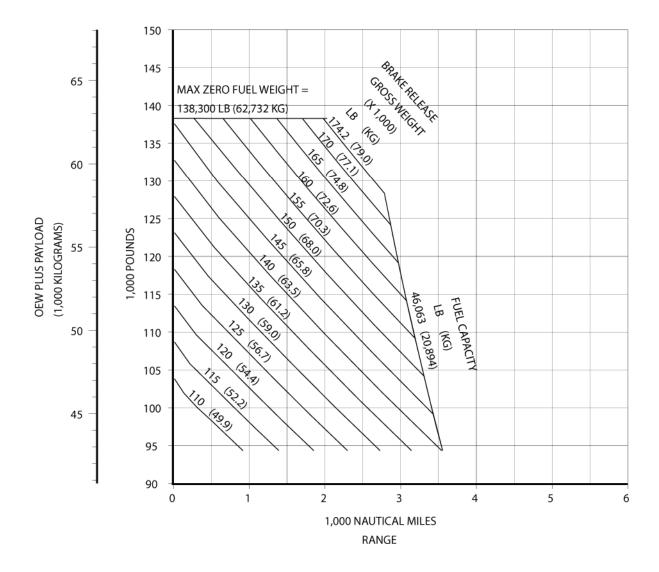


### 3.2.12 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-800

### Payload/Range 737-900/-900W (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEEDS
- TYPICAL MISSION RULES
- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY GREATER RANGE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

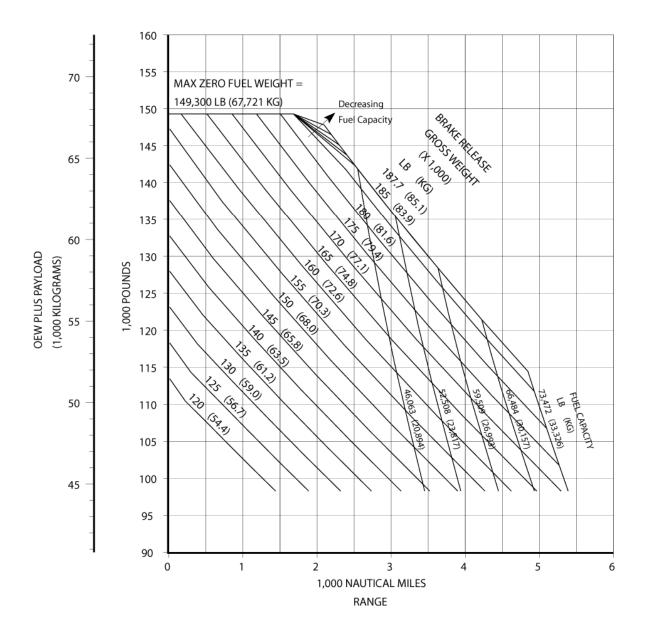


### 3.2.13 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-900

### Payload/Range 737-900ER/900ERW/BBJ3 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- CRUISE MACH = LRC
- NORMAL POWER EXTRACTION AND AIR CONDITIONING BLEEDS
- TYPICAL MISSION RULES
- NON-WINGLET PERFORMANCE SHOWN. WINGLET AIRCRAFT WILL HAVE SLIGHTLY GREATER RANGE.
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE AND OEW PRIOR TO FACILITY DESIGN.

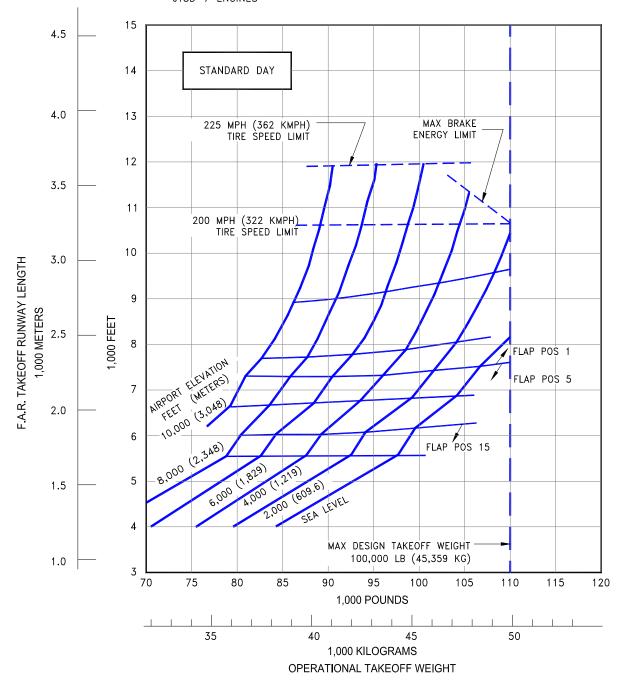


### 3.2.14 PAYLOAD/RANGE FOR LONG-RANGE CRUISE

MODEL 737-900ER

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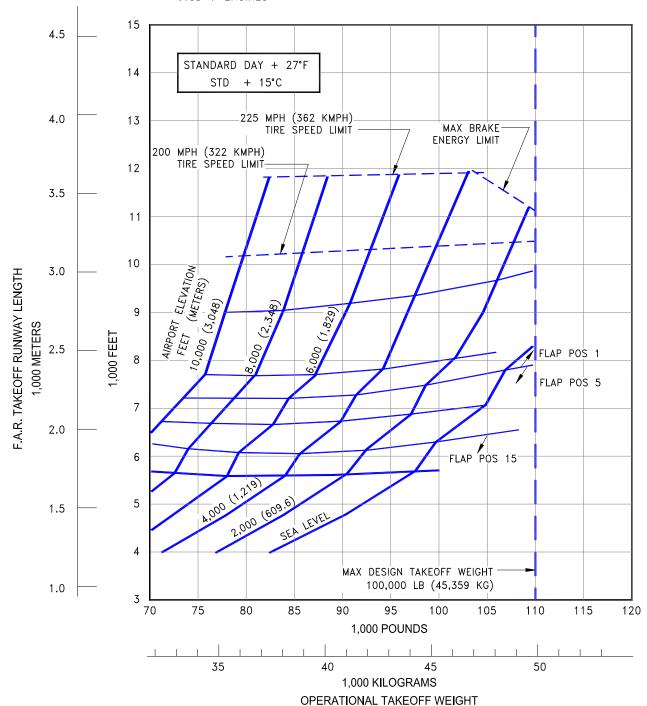
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-7 ENGINES



## 3.3.1 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-100 (JT8D-7 ENGINES)

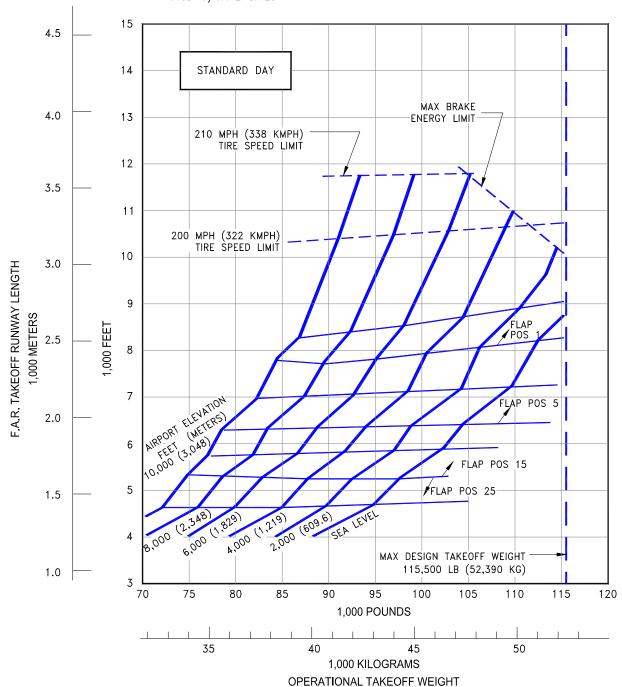
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-7 ENGINES



#### F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS 3.3.2 STANDARD DAY +27°F (STD + 15°C)

MODEL 737-100 (JT8D-7 ENGINES)

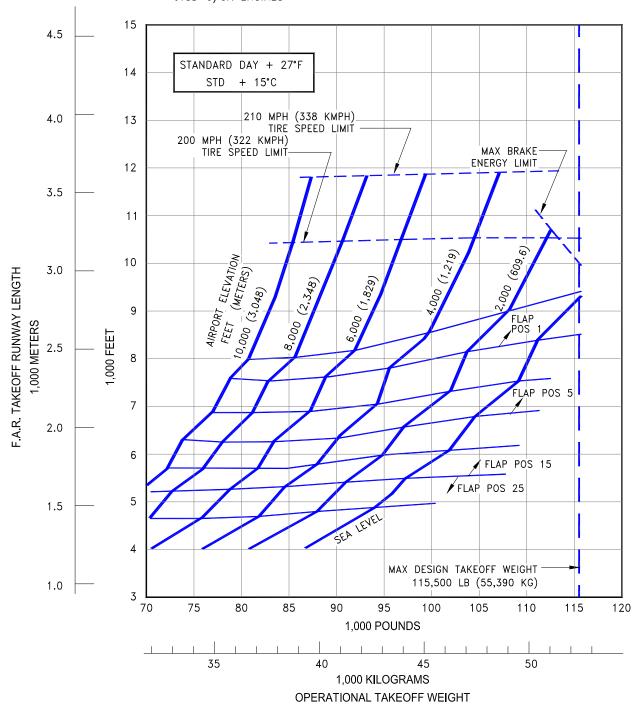
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-9/9A ENGINES



## 3.3.2 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-200 (JT8D-9/9A ENGINES)

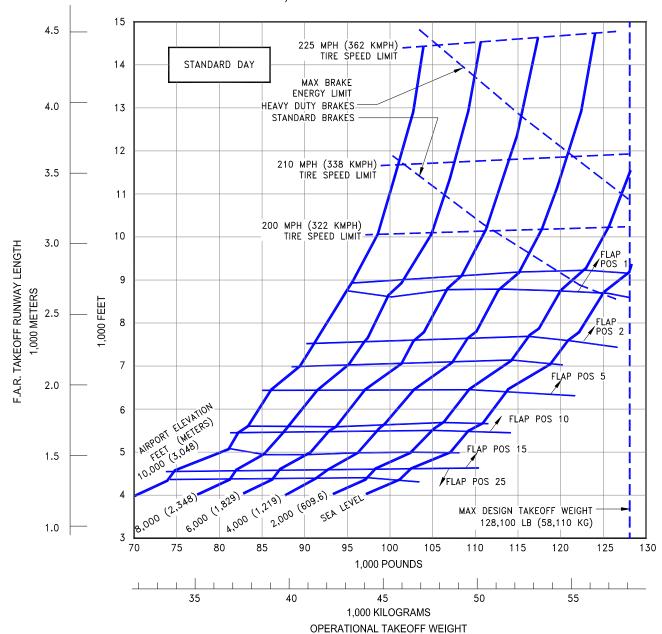
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-9/9A ENGINES



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

MODEL 737-200 (JT8D-9/9A ENGINES)

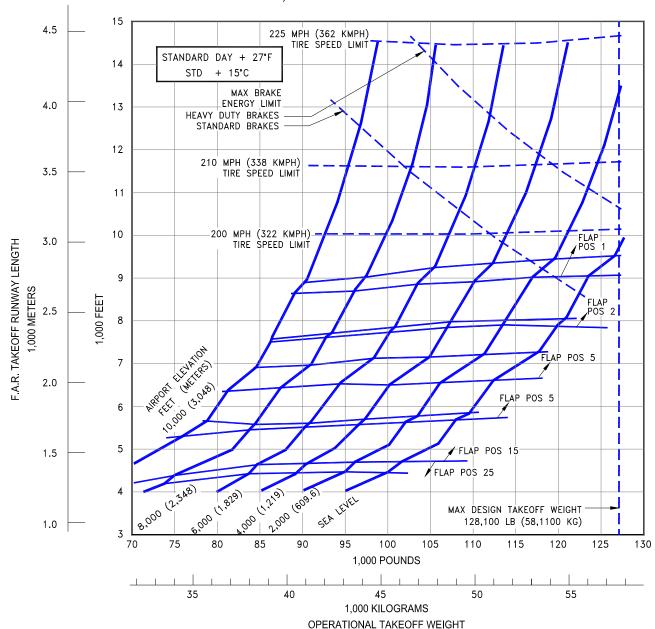
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-15/15A ENGINES



## 3.3.5 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL ADVANCED 737-200 (JT8D-15/15A ENGINES)

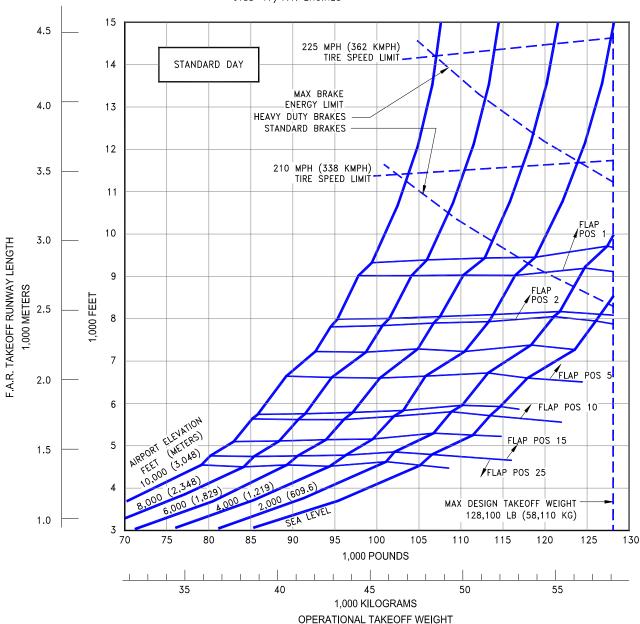
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-15/15A ENGINES



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

MODEL ADVANCED 737-200 (JT8D-15/15A ENGINES)

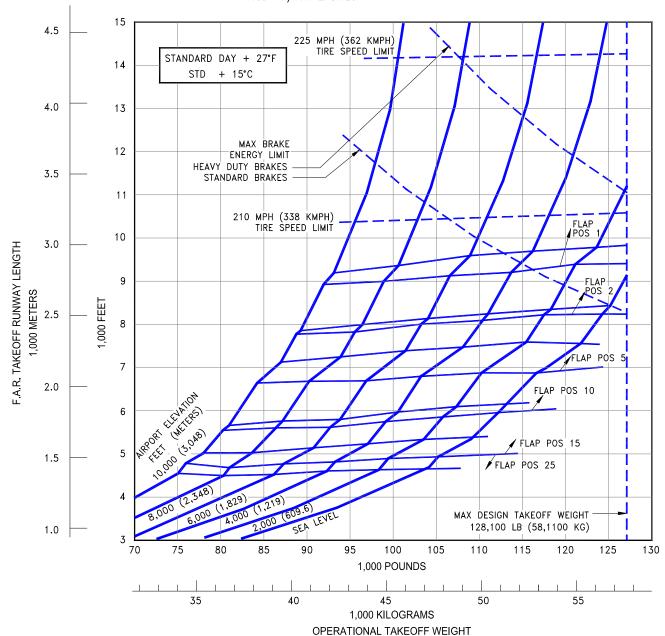
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-17/17A ENGINES



## 3.3.7 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL ADVANCED 737-200 (JT8D-17/17A ENGINES)

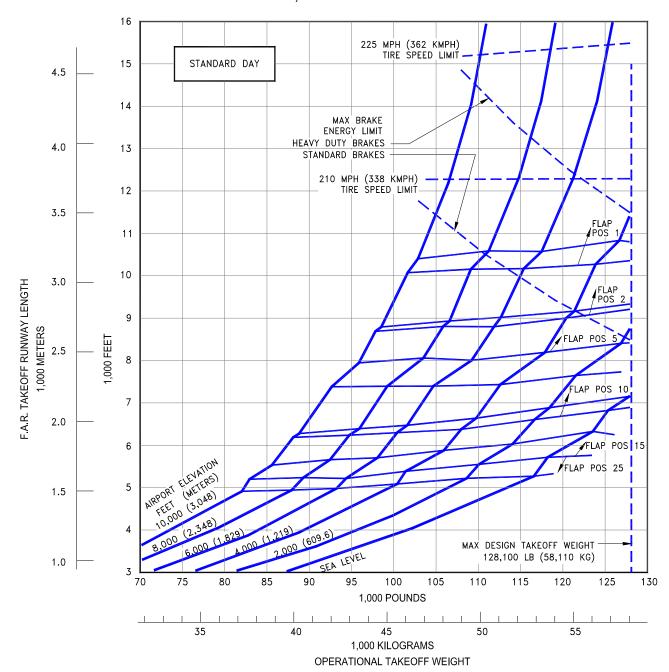
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN \* JT8D-17/17A ENGINES



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

MODEL ADVANCED 737-200 (JT8D-17/17A ENGINES)

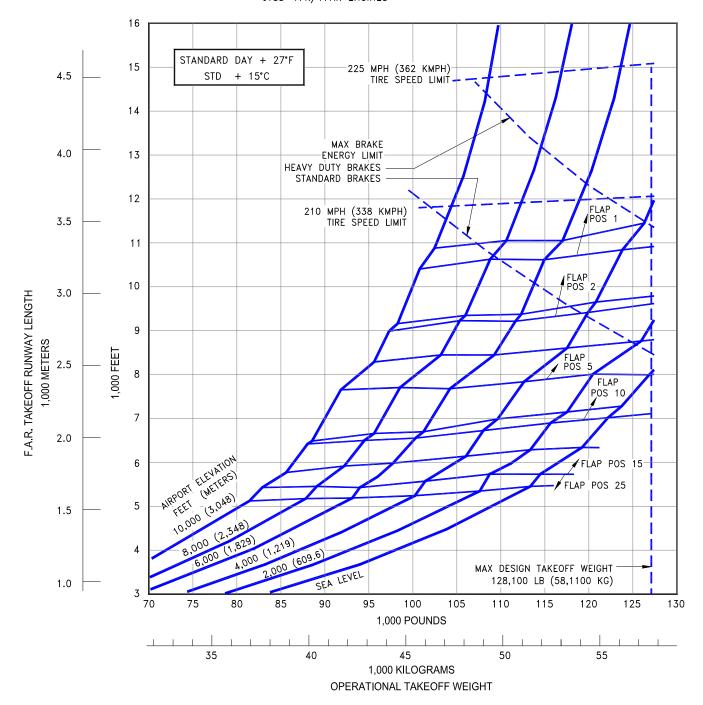
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-17R/17AR ENGINES



## 3.3.9 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL ADVANCED 737-200 (JT8D-17R/17AR ENGINES)

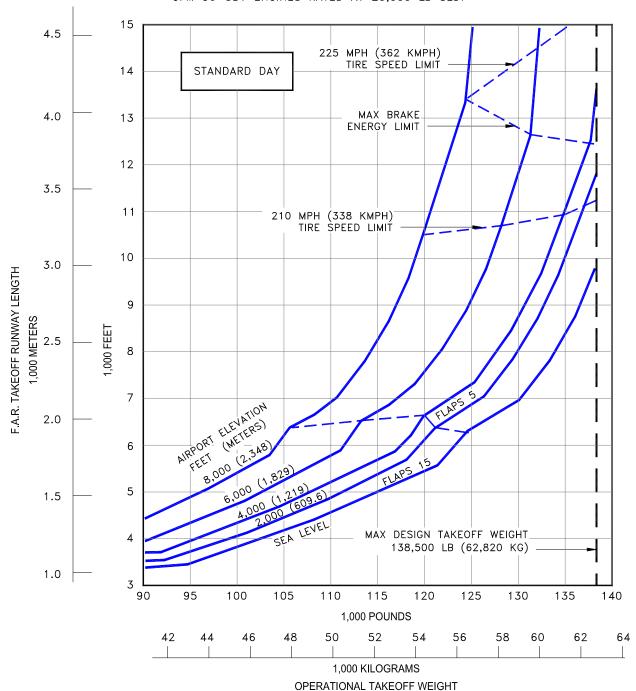
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* JT8D-17R/17AR ENGINES



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

MODEL ADVANCED 737-200 (JT8D-17R/17AR ENGINES)

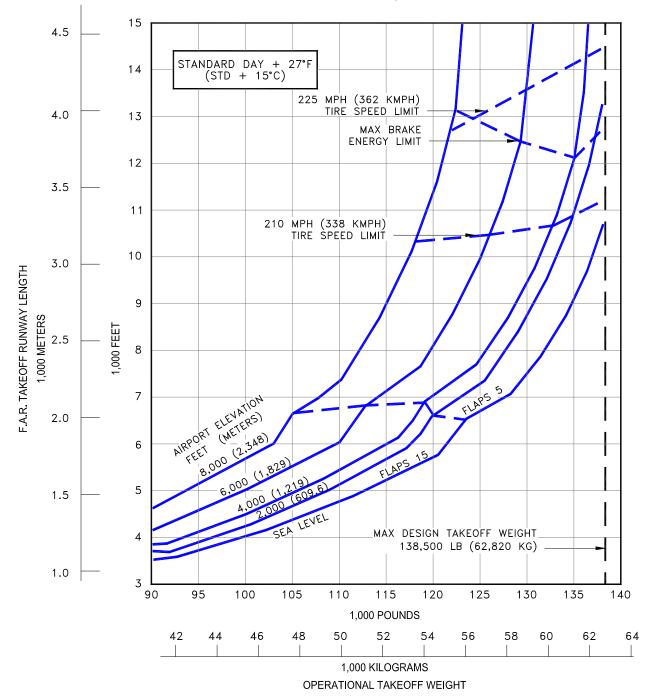
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 20,000 LB SLST



## 3.3.11 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-300 (CFM56-3B1 ENGINES AT20,000 LB SLST)

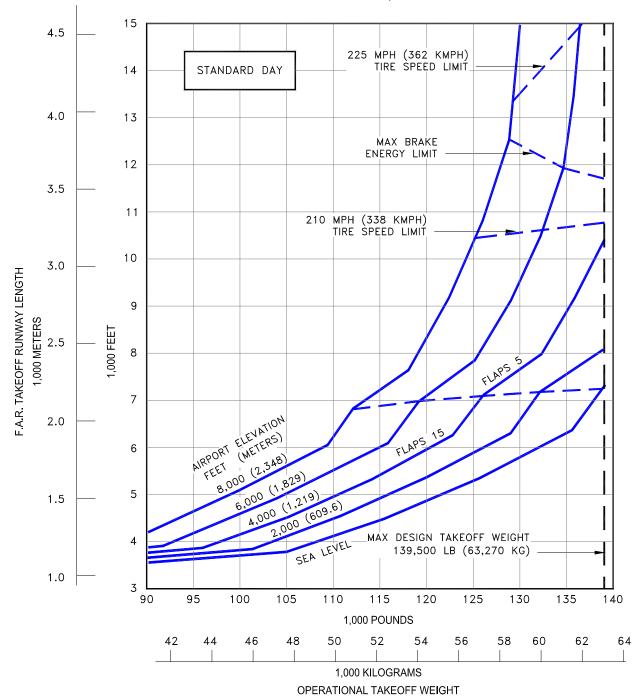
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 20,000 LB SLST



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

MODEL 737-300 (CFM56-3B1 ENGINES AT20,000 LB SLST)

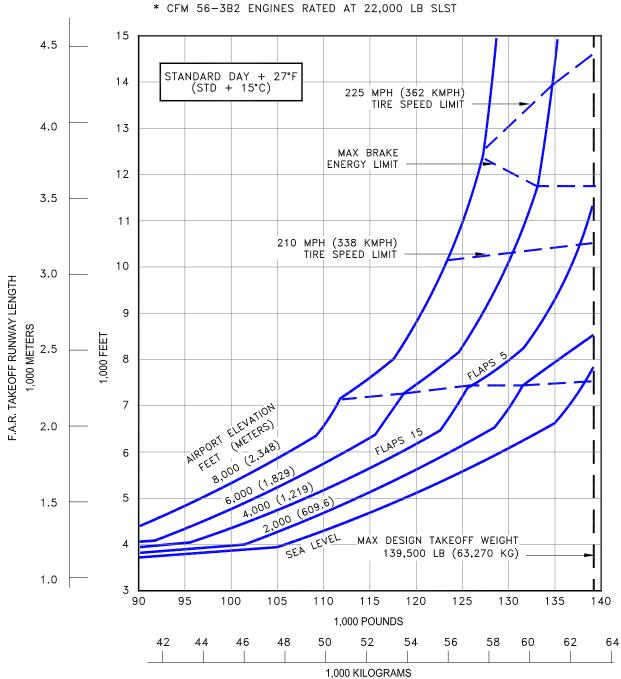
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B2 ENGINES RATED AT 22,000 LB SLST



## 3.3.13 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-300 (CFM56—3B-2 ENGINES AT 22,000 LB SLST)

- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

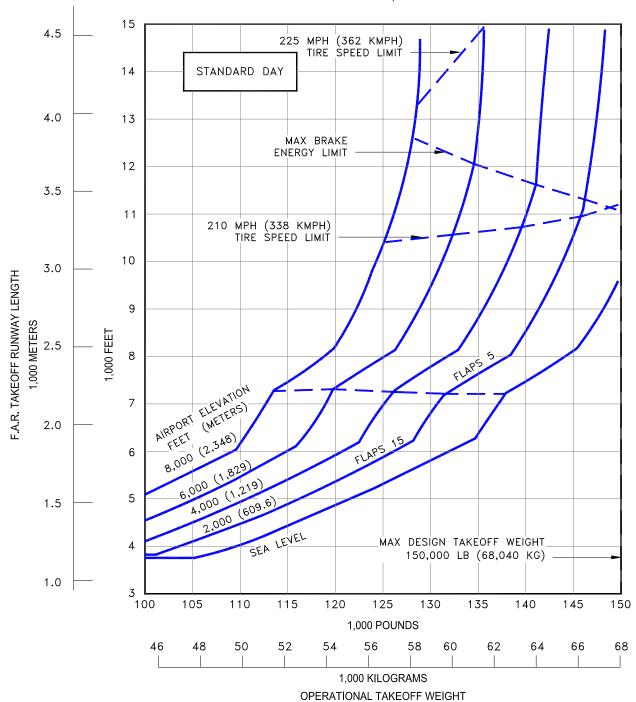


#### F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS 3.3.14 STANDARD DAY +27°F (STD + 15°C)

MODEL 737-300 (CFM56-3B-2 ENGINES AT 22,000 LB SLST)

OPERATIONAL TAKEOFF WEIGHT

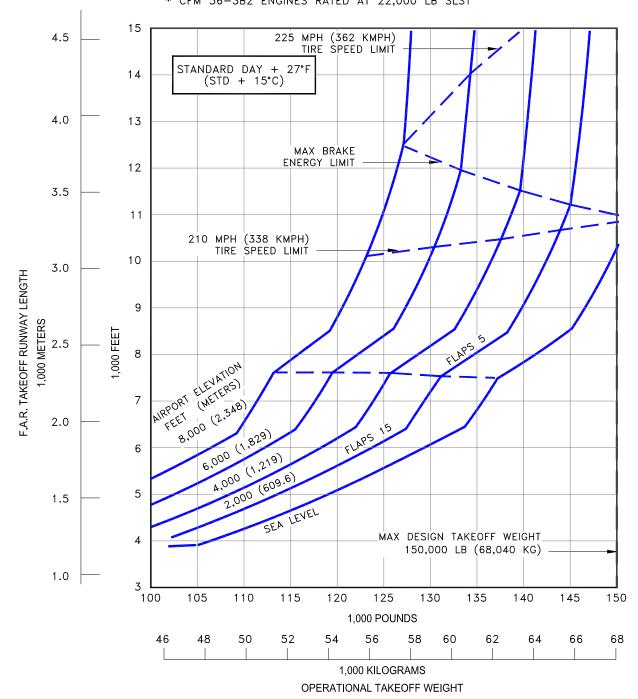
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B2 ENGINES RATED AT 22,000 LB SLST



## 3.3.15 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-400 (CFM56-3B-2 ENGINES AT 22,000 LB SLST)

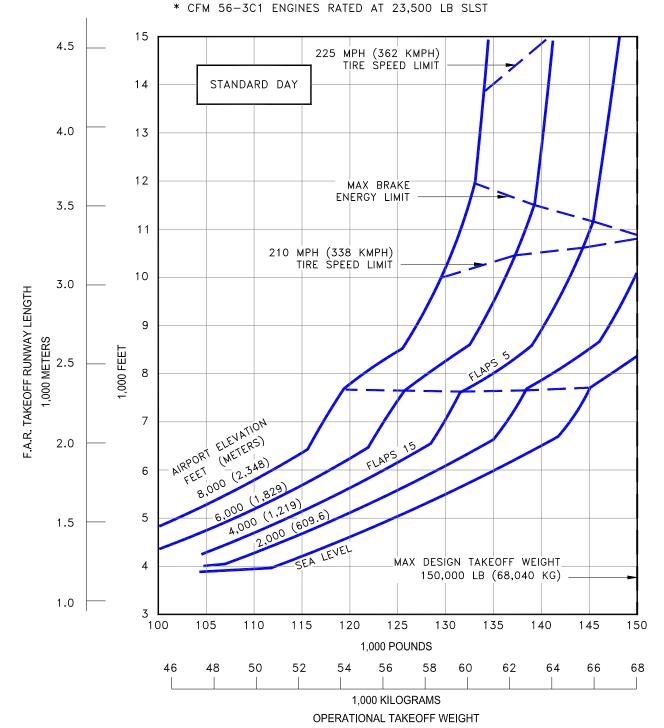
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN \* CFM 56-3B2 ENGINES RATED AT 22,000 LB SLST



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

MODEL 737-400 (CFM56-3B-2 ENGINES AT 22,000 LB SLST)

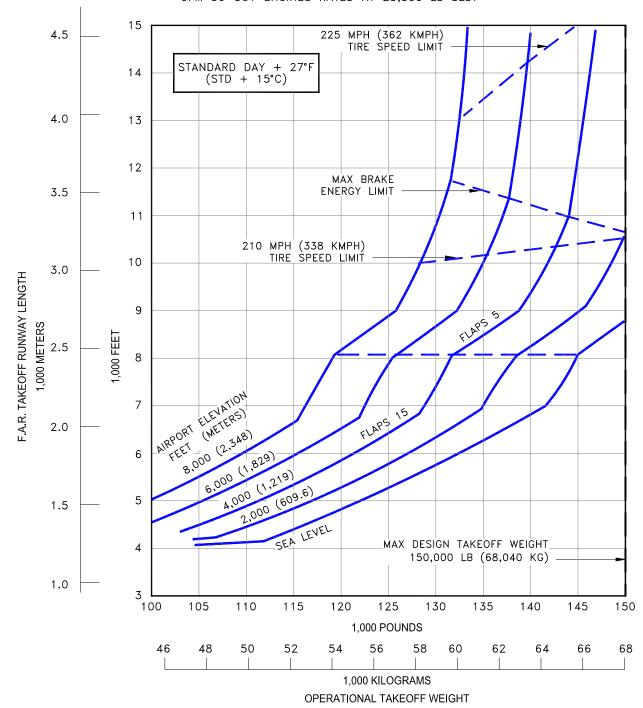
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



## 3.3.17 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-400 (CFM56-3C1 ENGINES AT 23,500 LB SLST)

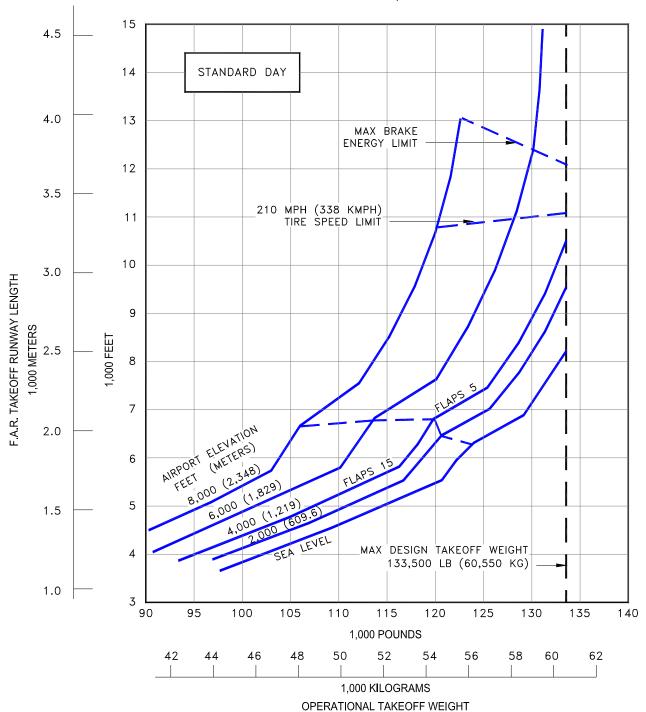
- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3C1 ENGINES RATED AT 23,500 LB SLST



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

MODEL 737-400 (CFM56-3C1 ENGINES AT 23,500 LB SLST)

- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 20,000 LB SLST

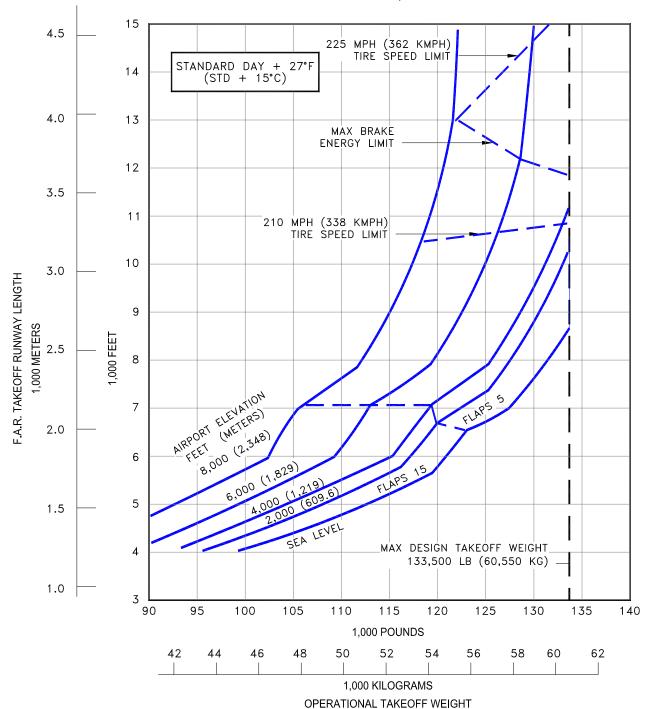


## 3.3.19 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-500 (CFM56-3B-1 ENGINES AT 20,000 LB SLST)

#### NOTES:

- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 20,000 LB SLST

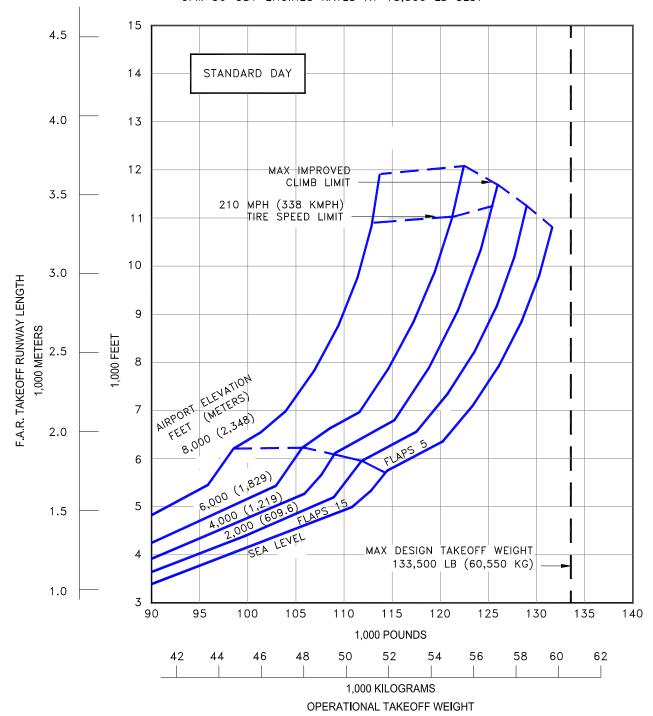


# 3.3.20 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C)

MODEL 737-500 (CFM56-3B-1 ENGINES AT 20,000 LB SLST)

#### NOTES:

- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 18,500 LB SLST

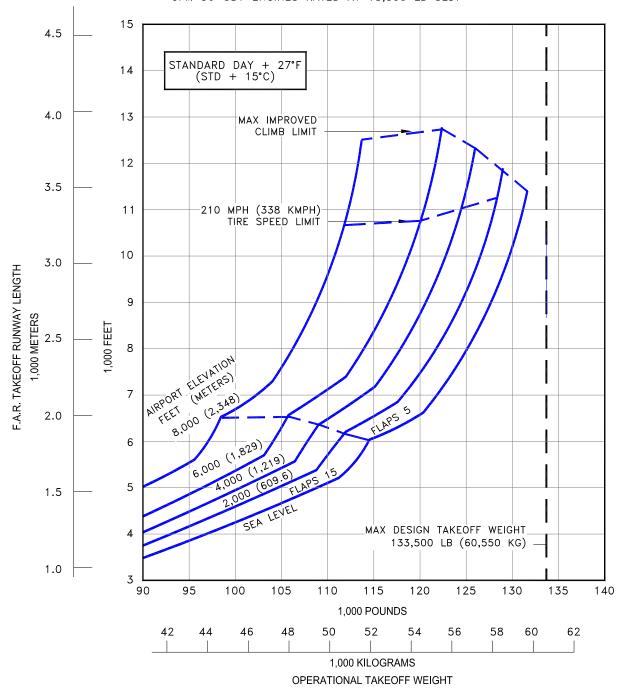


#### 3.3.21 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY

MODEL 737-500 (CFM56-3B-1 ENGINES AT 18,500 LB SLST)

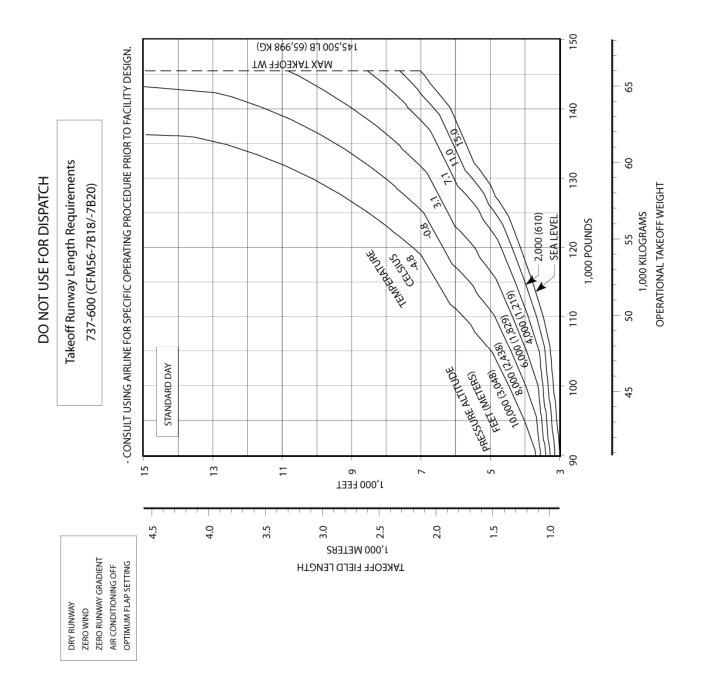
#### NOTES:

- \* NO ENGINE AIRBLEED FOR AIR CONDITIONING
- \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* CONSULT USING AIRLINE FOR SPECIFIC
- OPERATING PROCEDURE PRIOR TO FACILITY DESIGN
- \* CFM 56-3B1 ENGINES RATED AT 18,500 LB SLST



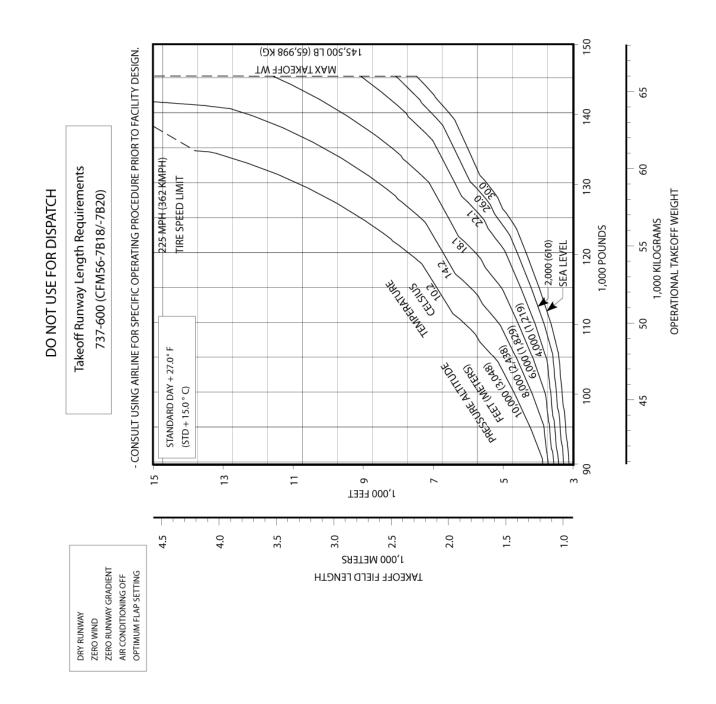
# 3.3.22 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C)

MODEL 737-500 (CFM56-3B-1 ENGINES AT 18,500 LB SLST)

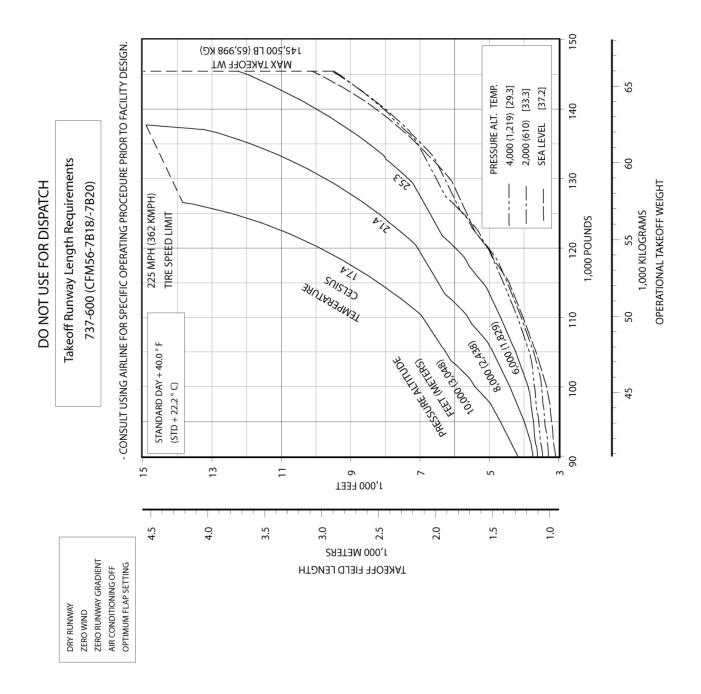


#### 3.3.23 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY

MODEL 737-600 (CFM56-7B18/-7B20 ENGINES AT 20,000 LB SLST)

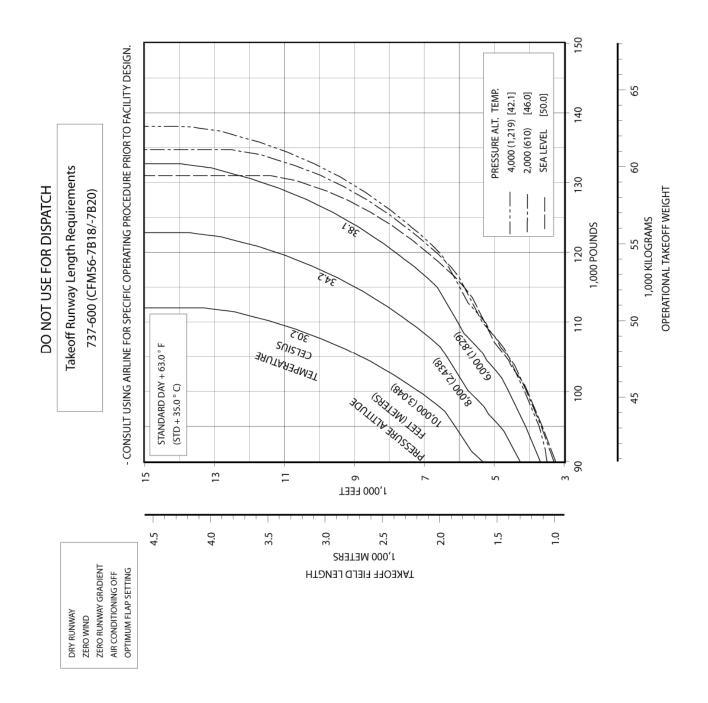


# 3.3.24 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY MODEL 737-600 (CFM56-7B18/-7B20 ENGINES AT 20,000 LB SLST)

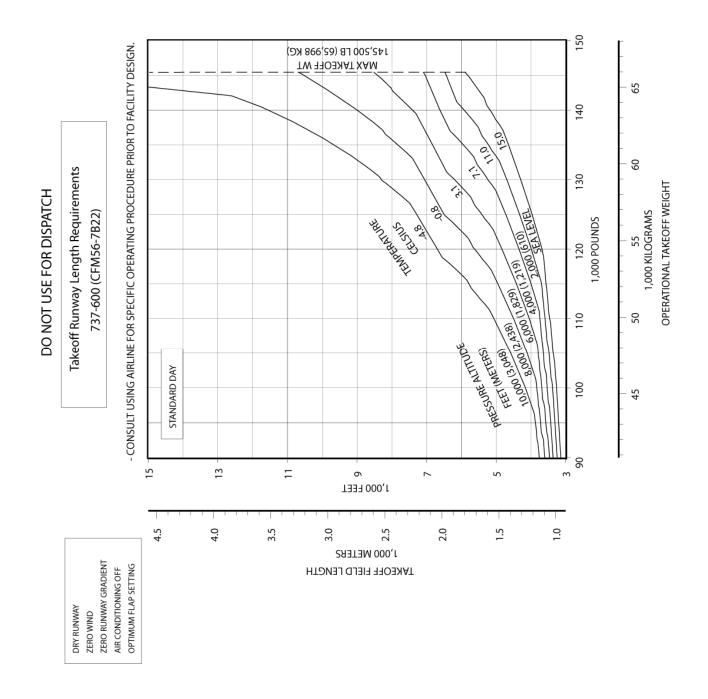


# 3.3.25 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY + 40 °F (STD + 22.2°C), DRY RUNWAY

MODEL 737-600 (CFM56-7B18/-7B20 ENGINES AT 20,000 LB SLST)

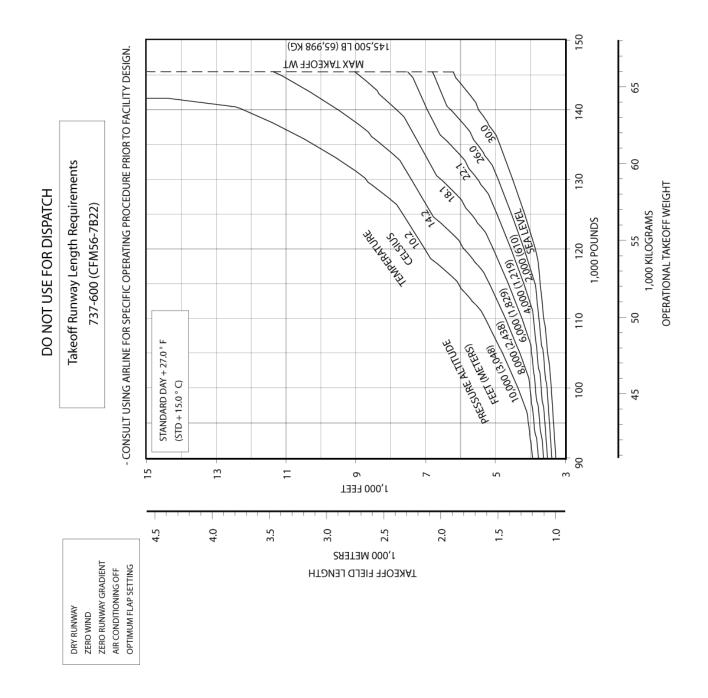


# 3.3.26 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY MODEL 737-600 (CFM56-7B18/-7B20 ENGINES AT 20,000 LB SLST)



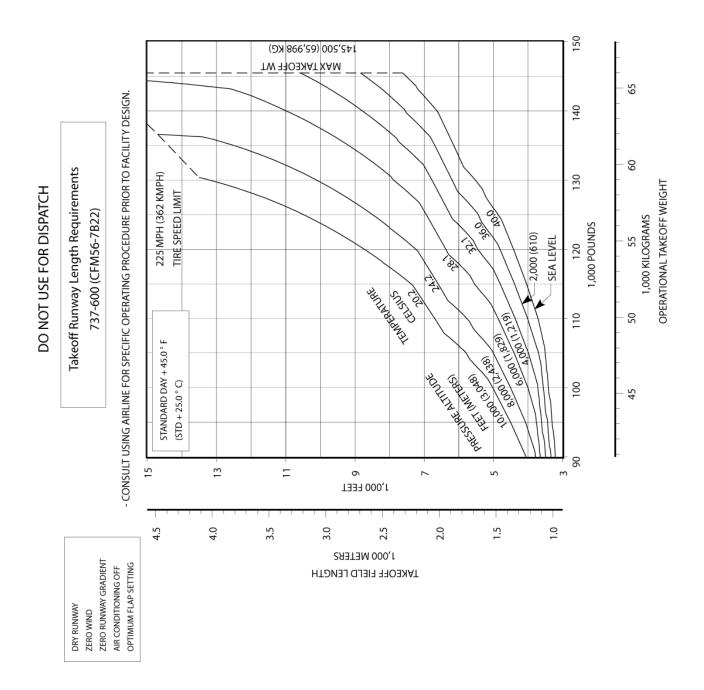
#### 3.3.27 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY

MODEL 737-600 (CFM56-7B22 ENGINES AT 22,00 LB SLST)



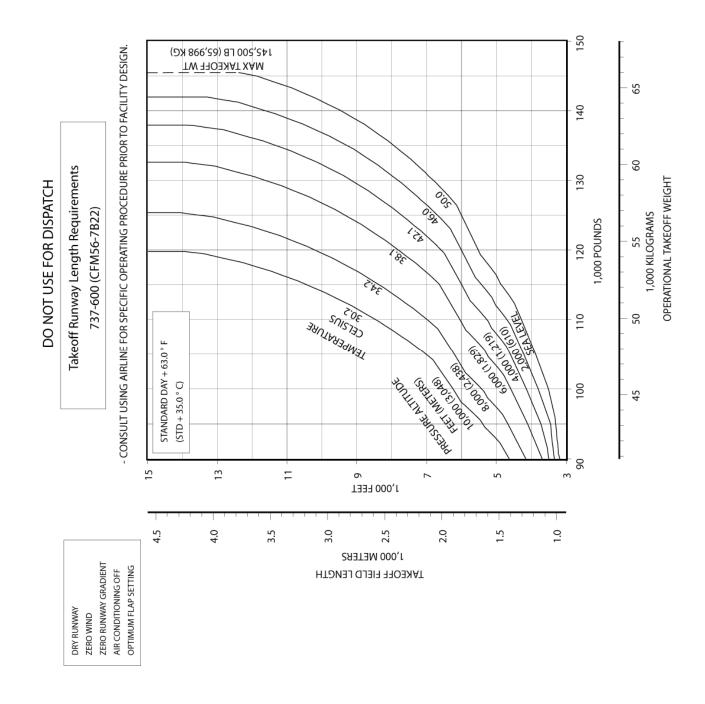
# 3.3.28 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY

MODEL 737-600 (CFM56-7B22 ENGINES AT 22,000 LB SLST)



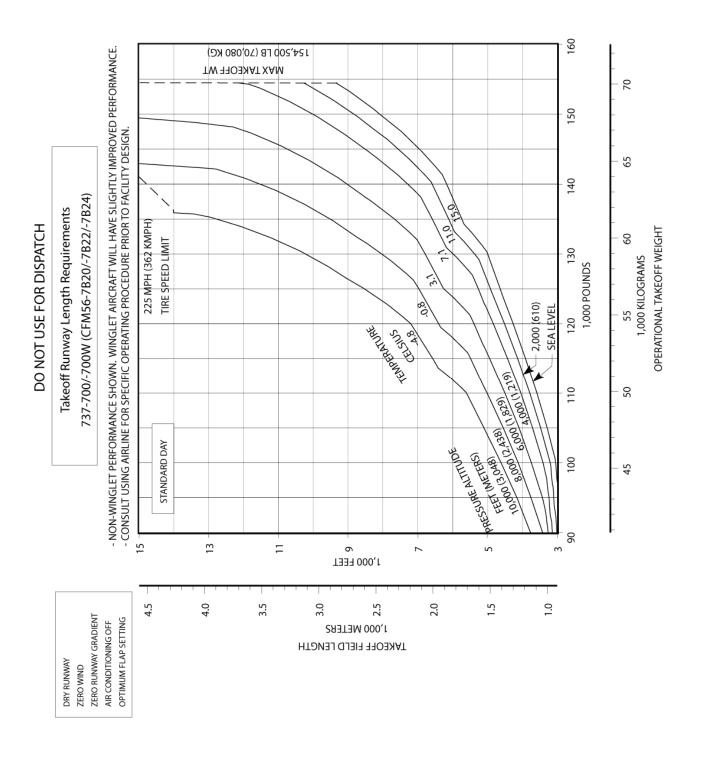
# 3.3.29 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY

MODEL 737-600 (CFM56-7B22 ENGINES AT 22,000 LB SLST)

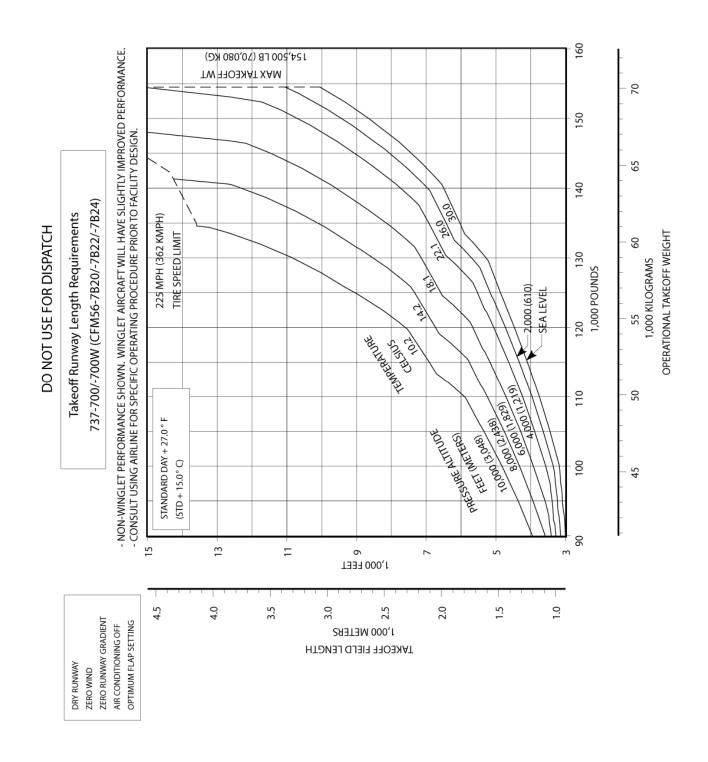


# 3.3.30 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

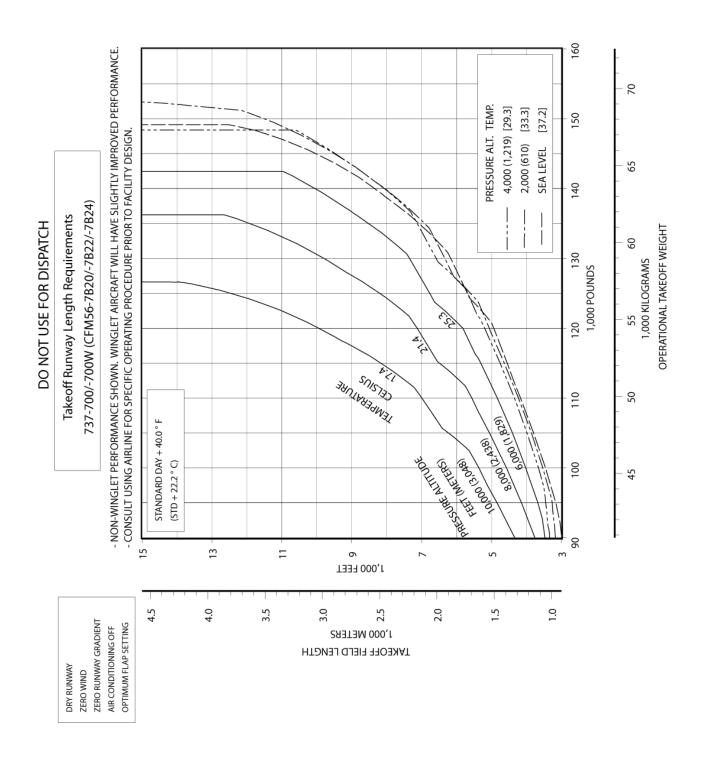
MODEL 737-600 (CFM56-7B22 ENGINES AT 22,000 LB SLST)



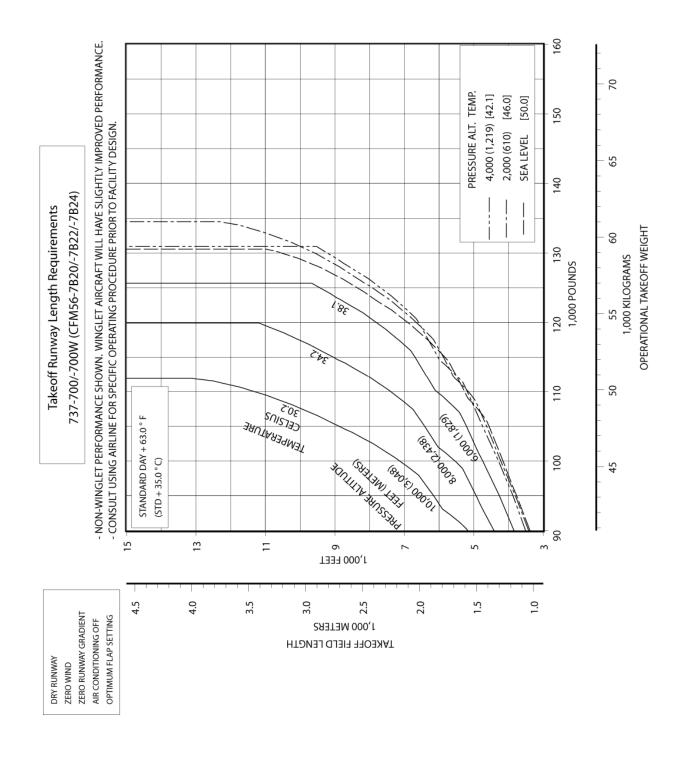
#### 3.3.31 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY



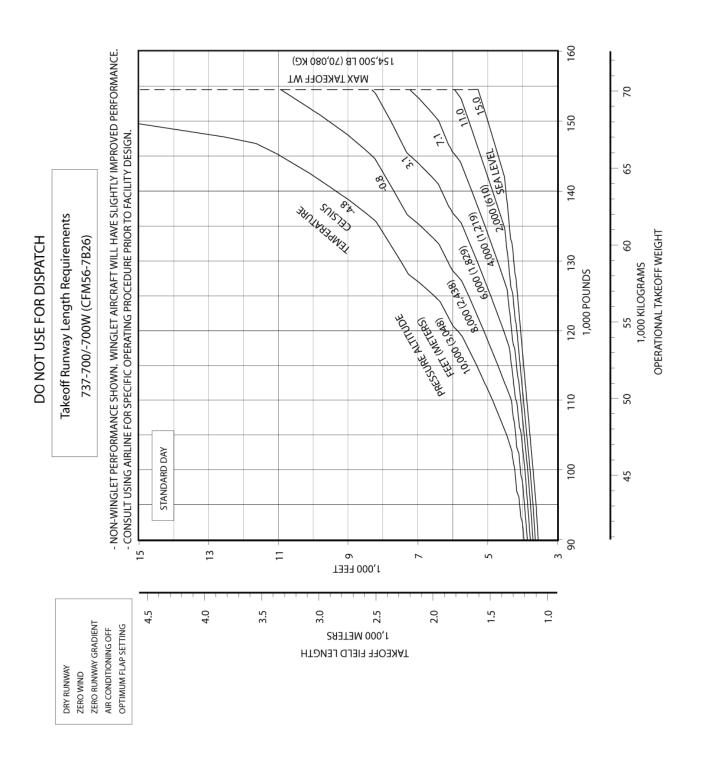
# 3.3.32 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY



## 3.3.33 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +40°F (STD + 22.2°C), DRY RUNWAY

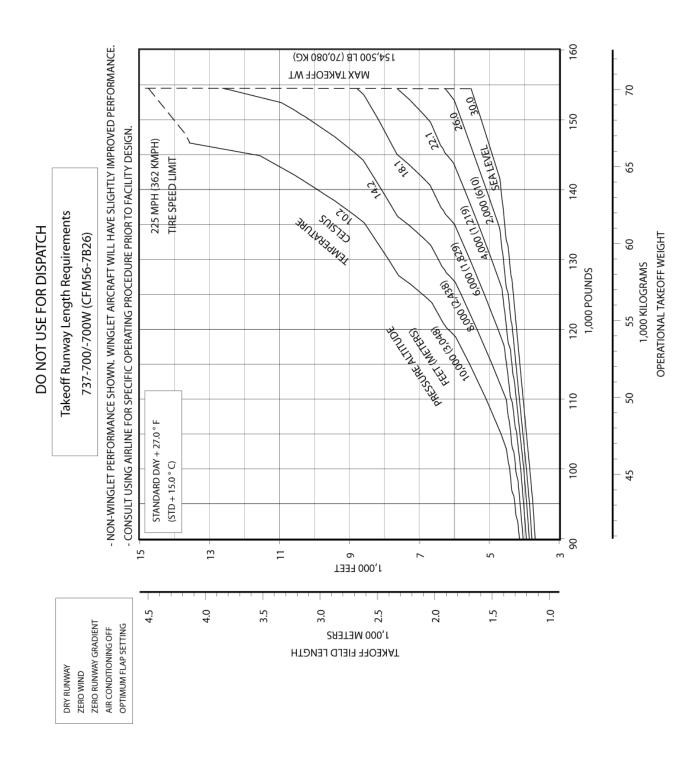


# 3.3.34 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

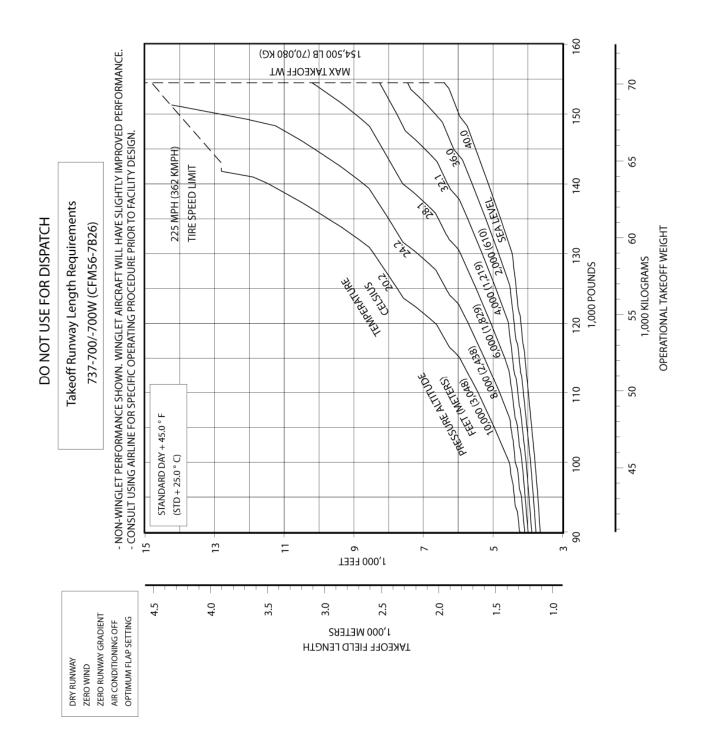


#### 3.3.35 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY

MODEL 737-700/-700W (CFM56-7B26 ENGINES AT 26,000 LB SLST)

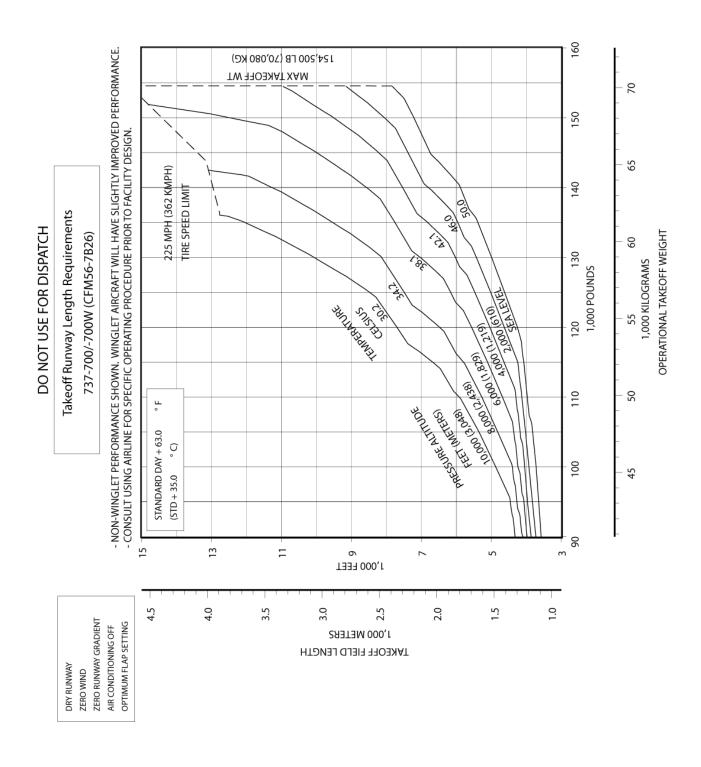


# 3.3.36 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY MODEL 737-700/-700W (CFM56-7B26 ENGINES AT 26,000 LB SLST)



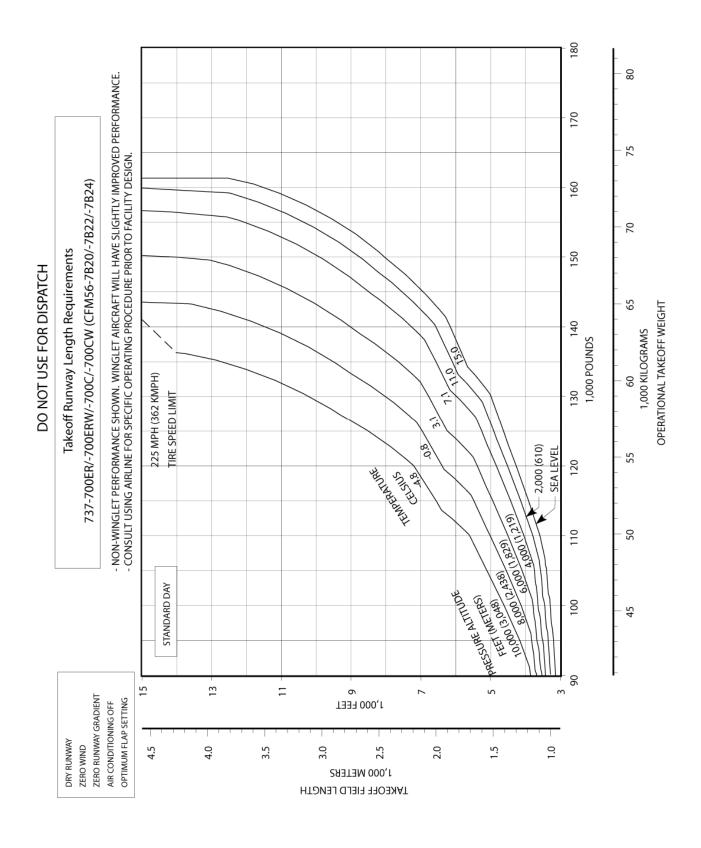
## 3.3.37 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY

MODEL 737-700/-700W (CFM56-7B26 ENGINES AT 26,000 LB SLST)

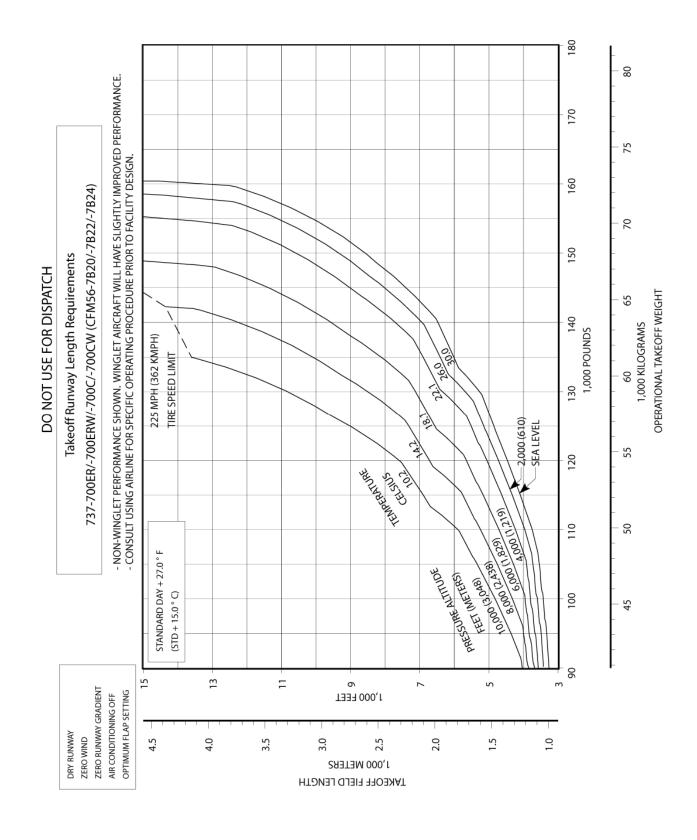


# 3.3.38 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

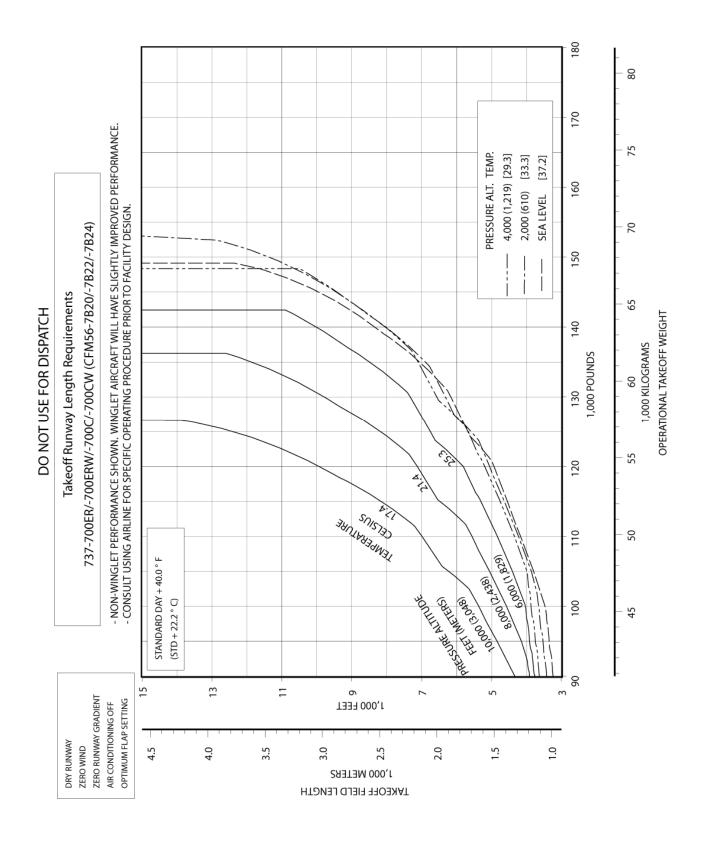
MODEL 737-700/-700W (CFM56-7B26 ENGINES AT 26,000 LB SLST)



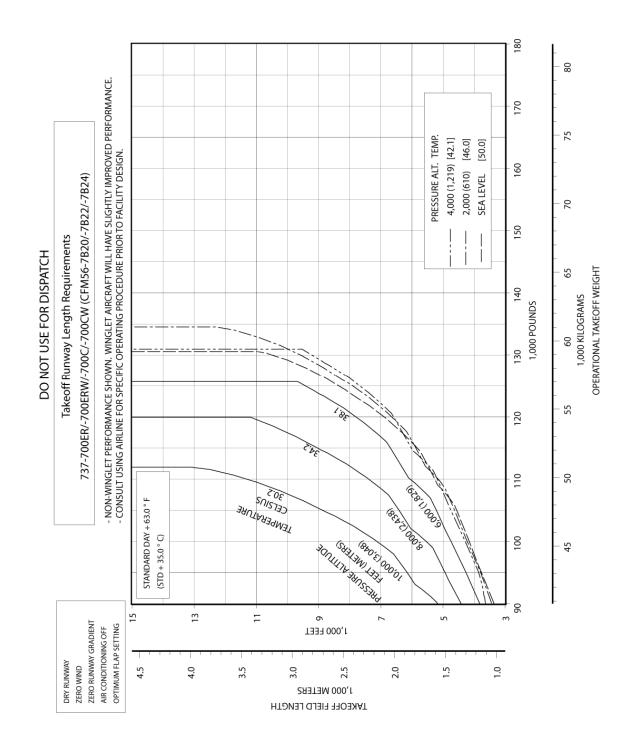
#### 3.3.39 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY



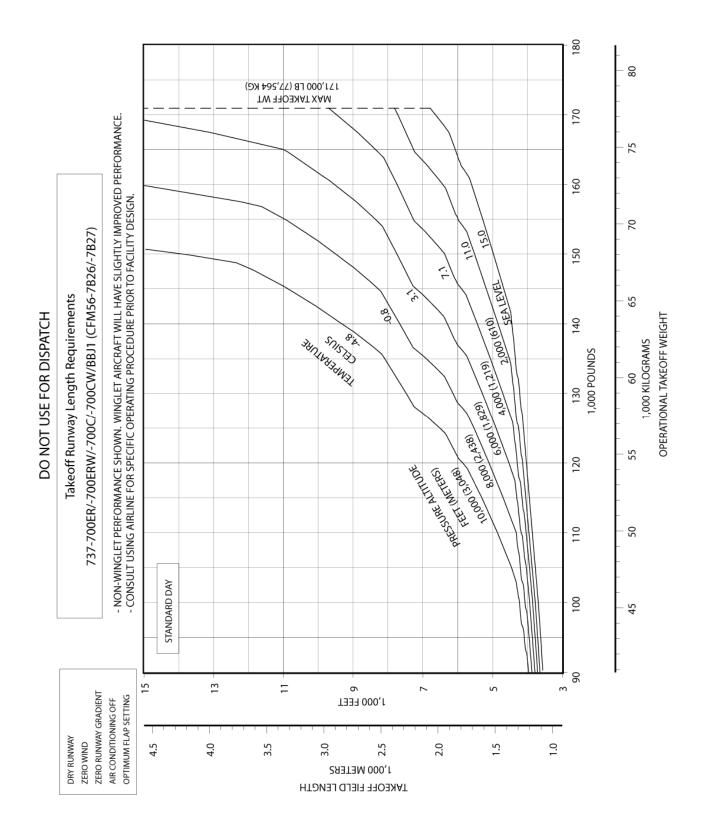
# 3.3.40 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY



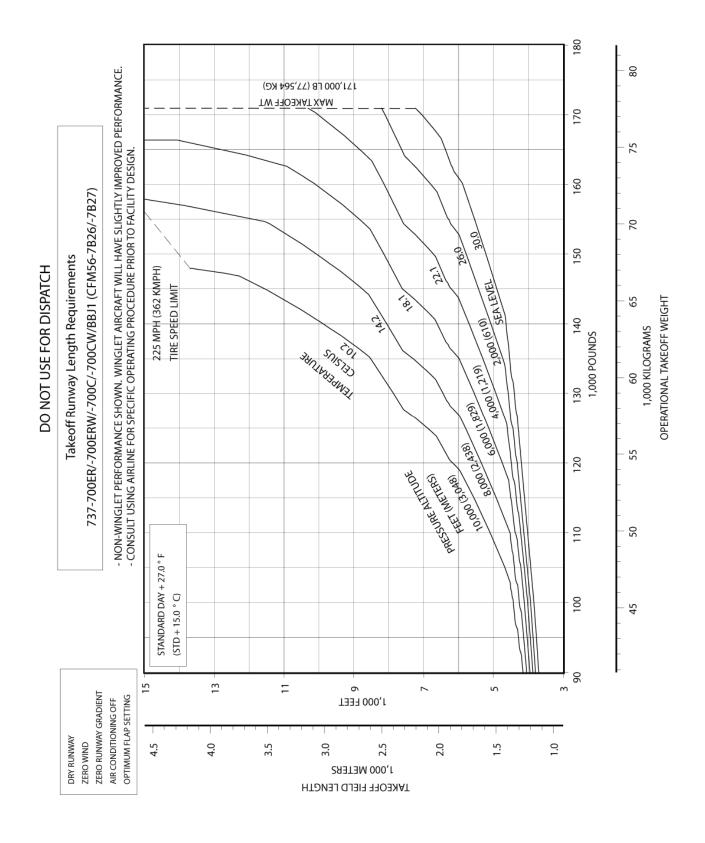
## 3.3.41 F.A.R TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +40°F (STD + 22.2°C), DRY RUNWAY



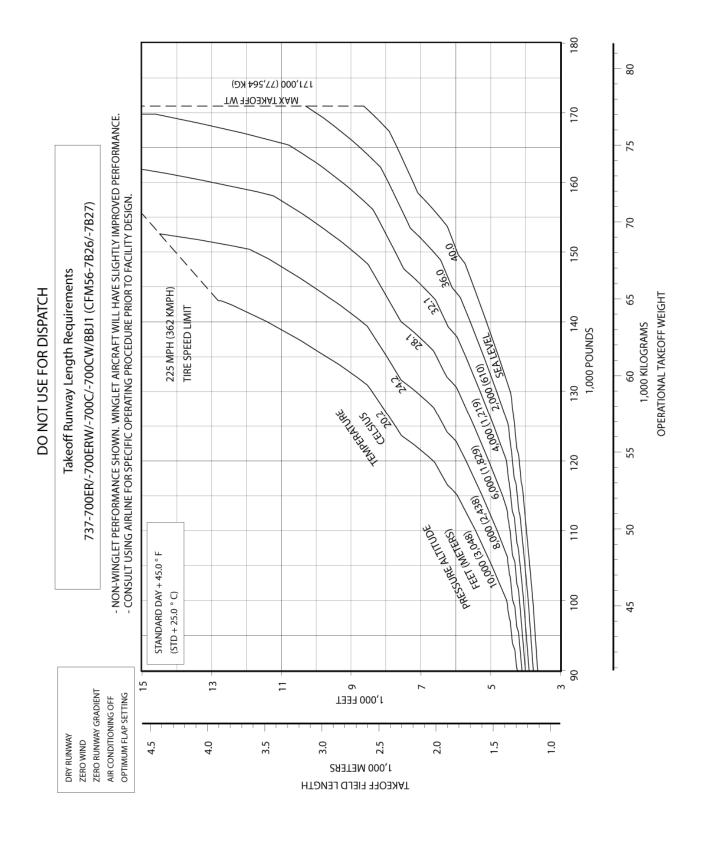
### 3.3.42 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY



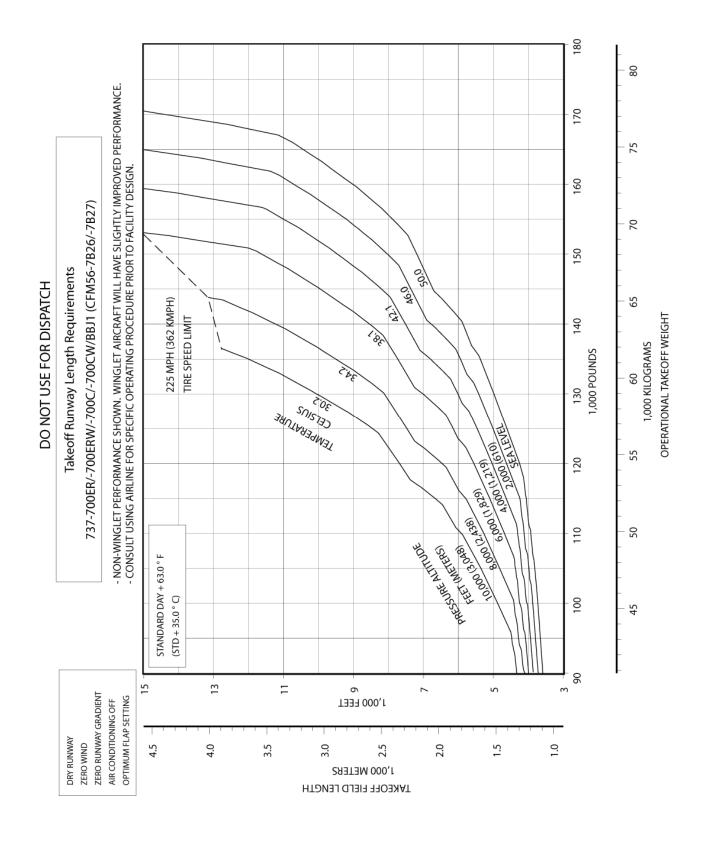
#### 3.3.43 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY



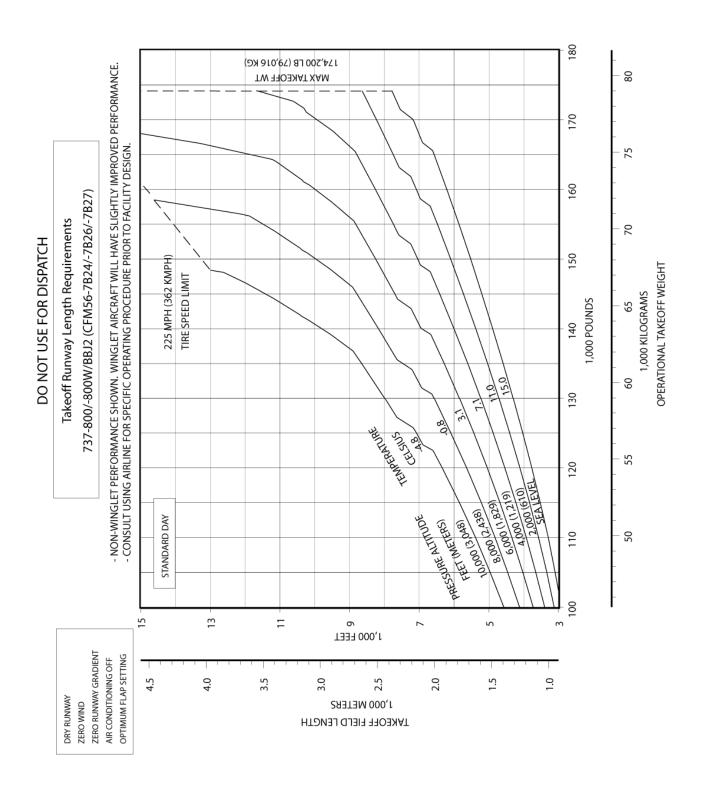
### 3.3.44 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY



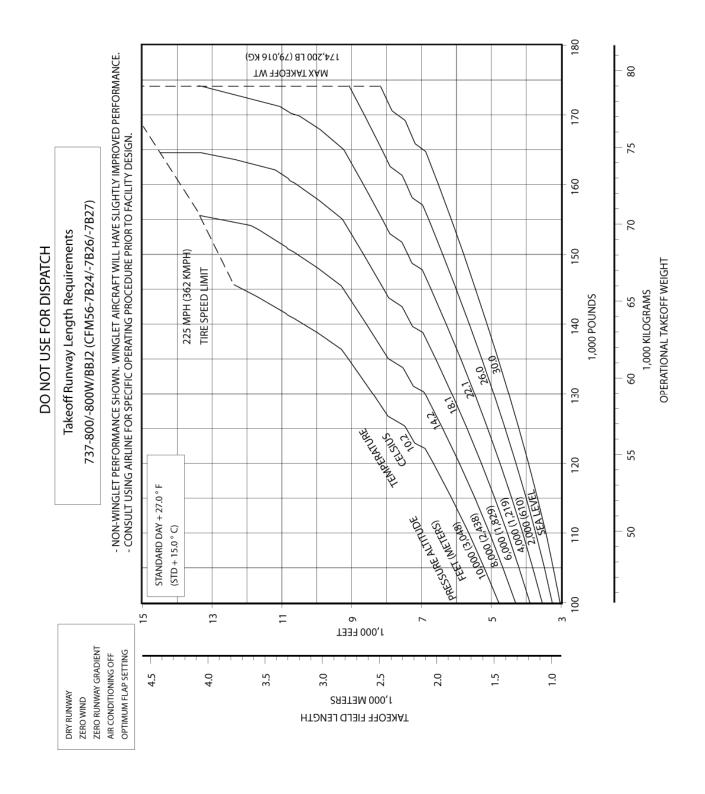
### 3.3.45 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY



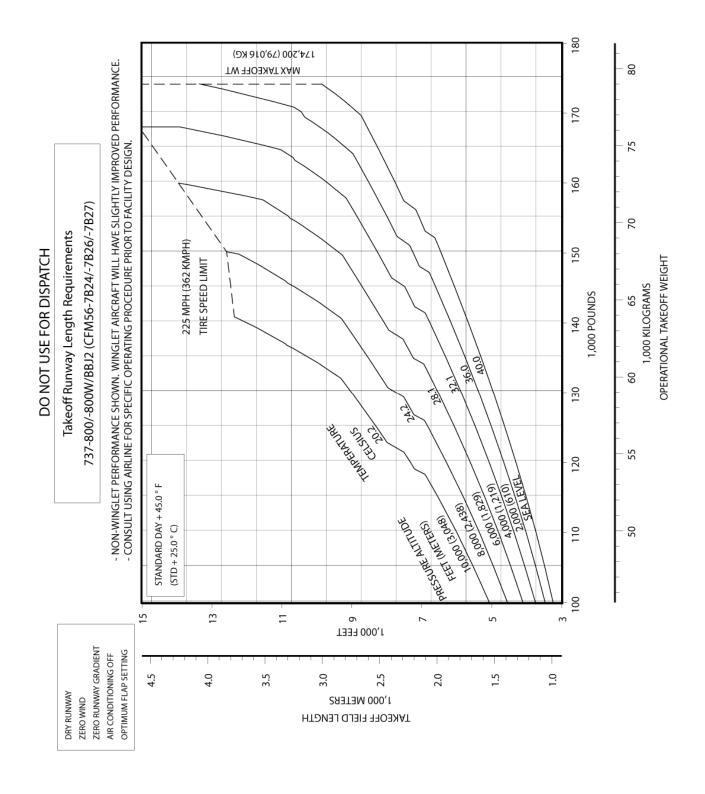
## 3.3.46 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY



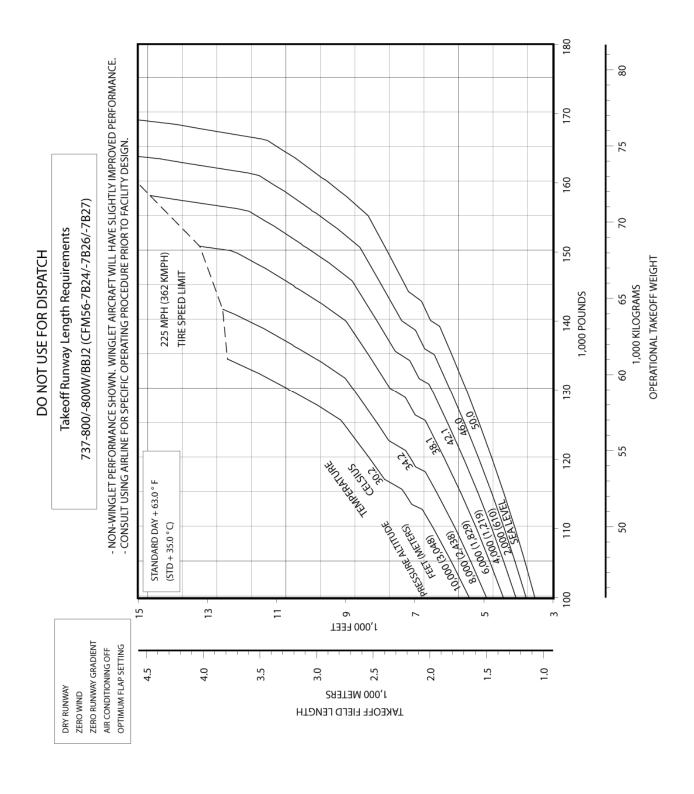
#### 3.3.47 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY



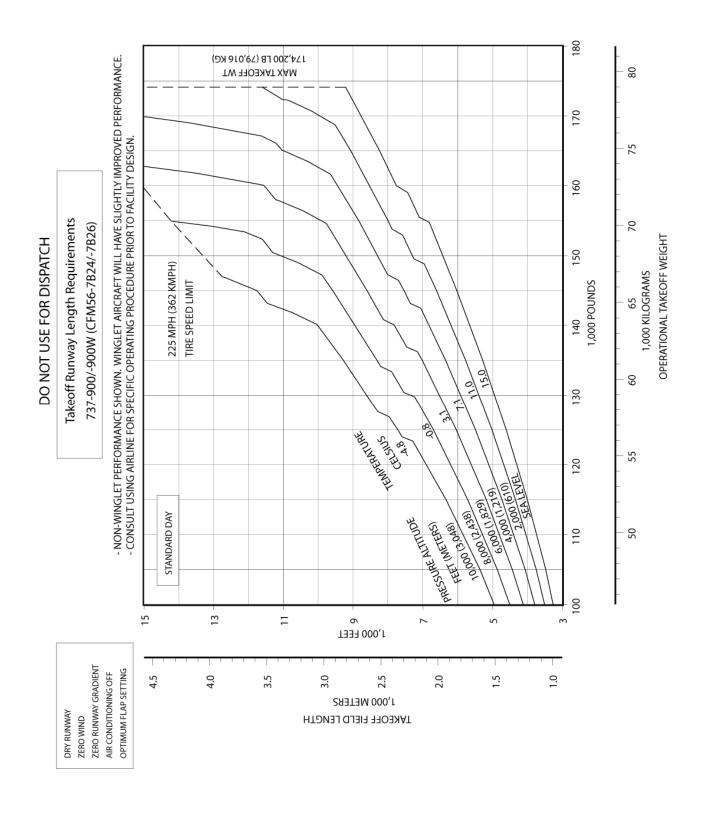
#### 3.3.48 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY



### 3.3.49 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY

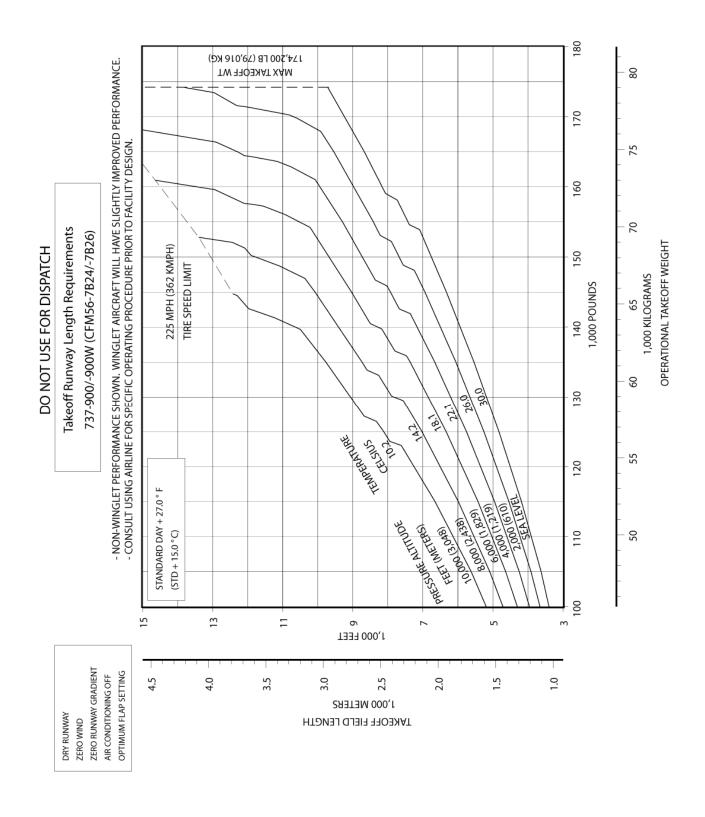


# 3.3.50 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

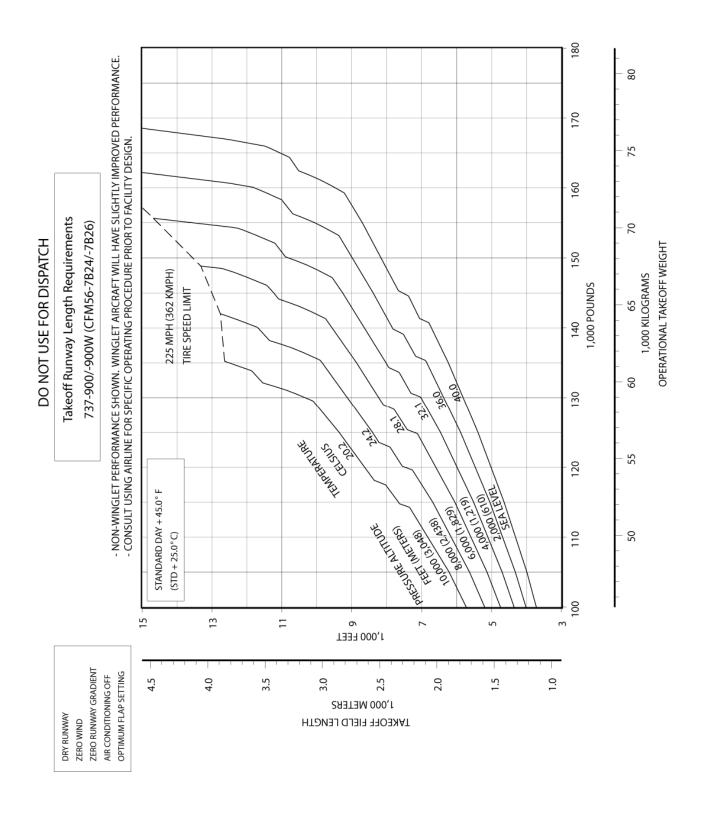


#### 3.3.51 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY

MODE L 737-900/-900W (CFM56-7B24/-7B26 ENGINES AT 24,000 LB SLST)

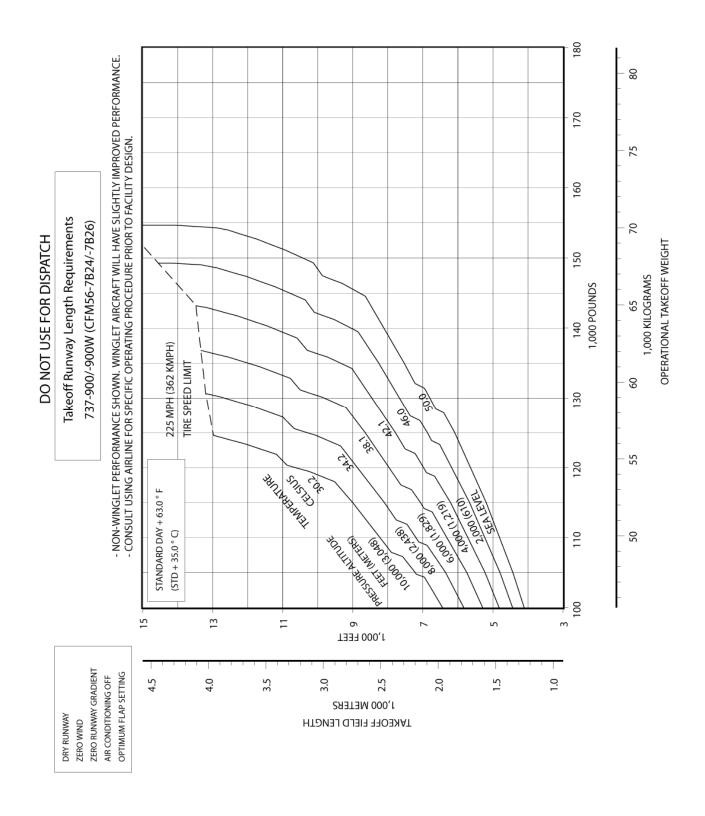


# 3.3.52 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +27°F (STD + 15°C), DRY RUNWAY MODEL 737-900/-900W (CFM56-7B24/-7B26 ENGINES AT 24,000 LB SLST) D6-58325-6



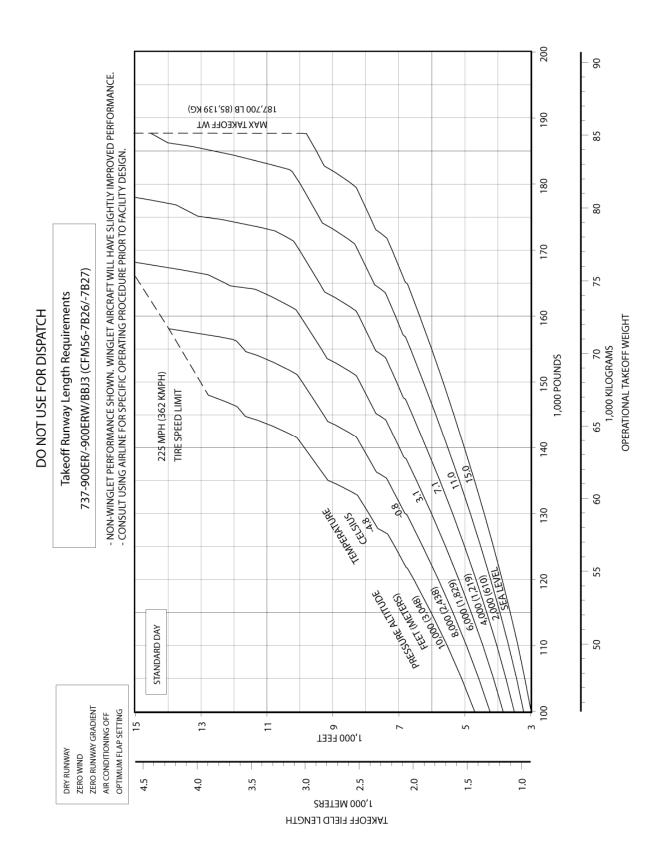
# 3.3.53 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY

MODEL 737-900/-900W (CFM56-7B24/-7B26 ENGINES AT 24,000 LB SLST)



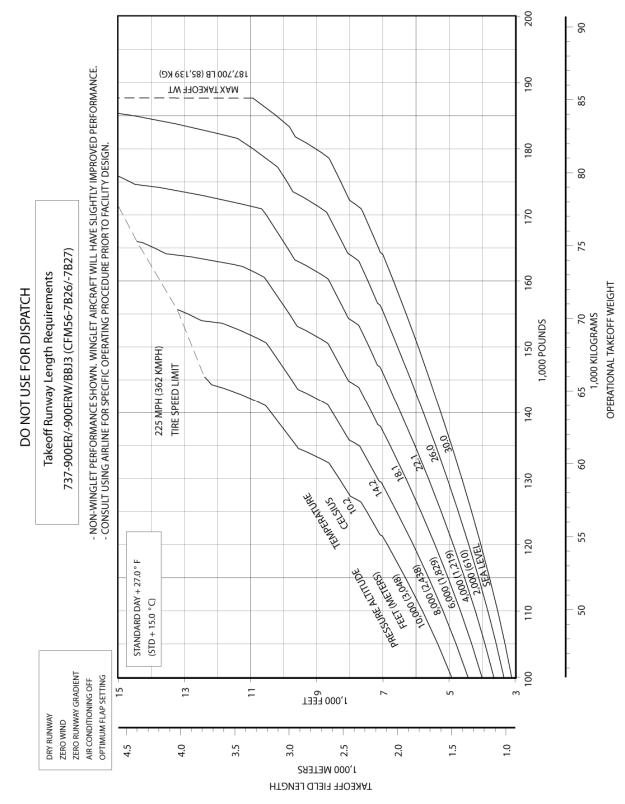
# 3.3.54 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

MODEL 737-900/-900W (CFM56-7B24/-7B26 ENGINES AT 24,000 LB SLST) D6-58325-6



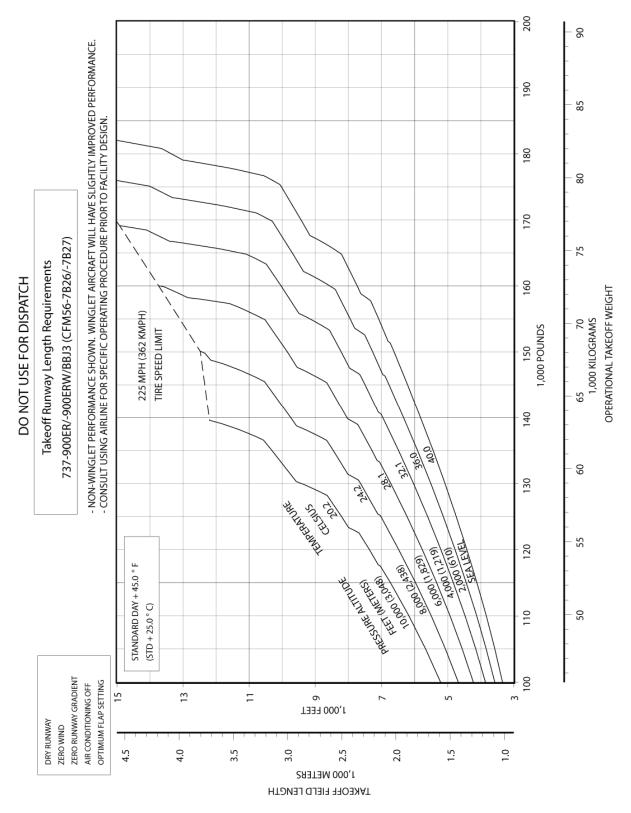
#### 3.3.55 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS STANDARD DAY, DRY RUNWAY

MODEL 737-900ER/-900ERW/BBJ3 (CFM56-7B26/-7B27 ENGINES AT 26,000 LB SLST)



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

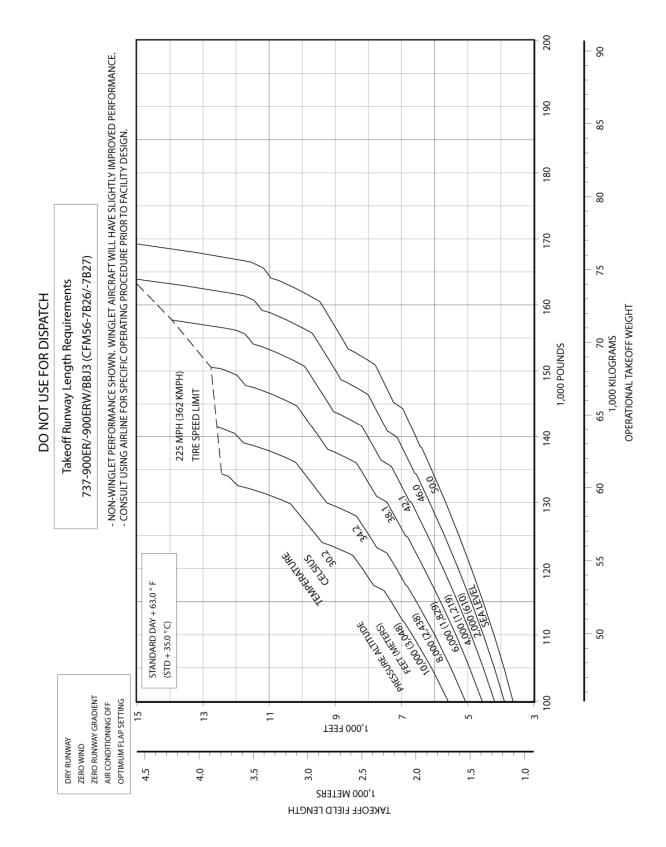
MODEL 737-900ER/-900ERW/BBJ3 (CFM56-7B26/-7B27 ENGINES AT 26,000 LB SLST)



3.3.57 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

STANDARD DAY +45°F (STD + 25°C), DRY RUNWAY

MODEL 737-900ER/-900ERW/BBJ3 (CFM56-7B26/-7B27 ENGINES AT 26,000 LB SLST)



3.3.58 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS

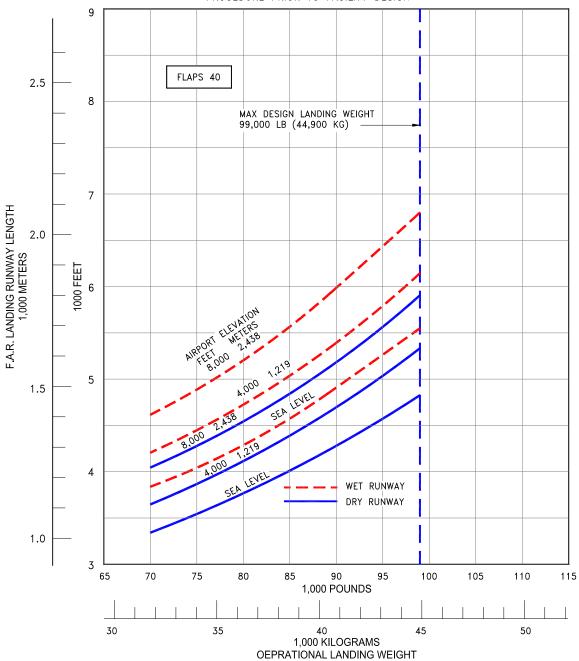
STANDARD DAY +63°F (STD + 35°C), DRY RUNWAY

MODEL 737-900ER/-900ERW/BBJ3 (CFM56-7B26/-7B27 ENGINES AT 26,000 LB SLST)

INTENTIONALLY LEFT BLANK

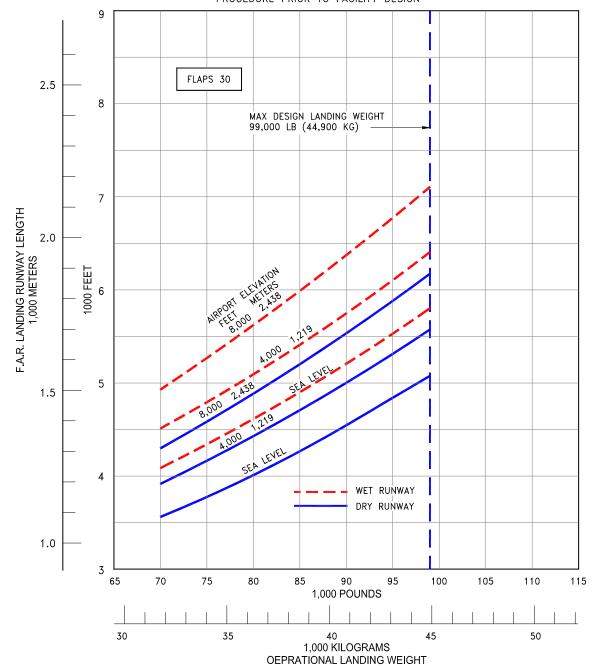
INTENTIONALLY LEFT BLANK AND DELETED PAGES 164 - 269

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 40
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



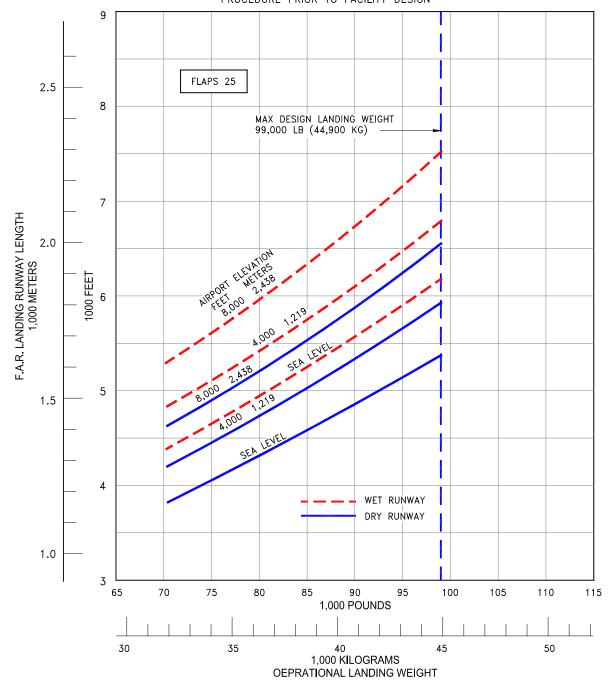
# 3.4.1 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 MODEL 737-100

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 30
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



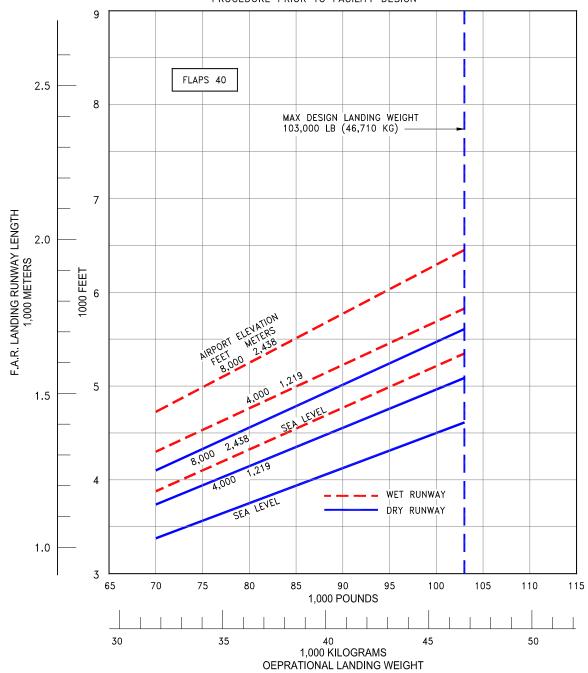
## 3.4.2 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-100

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 25
- \* AUTOMATIC SPEED BRAKES \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



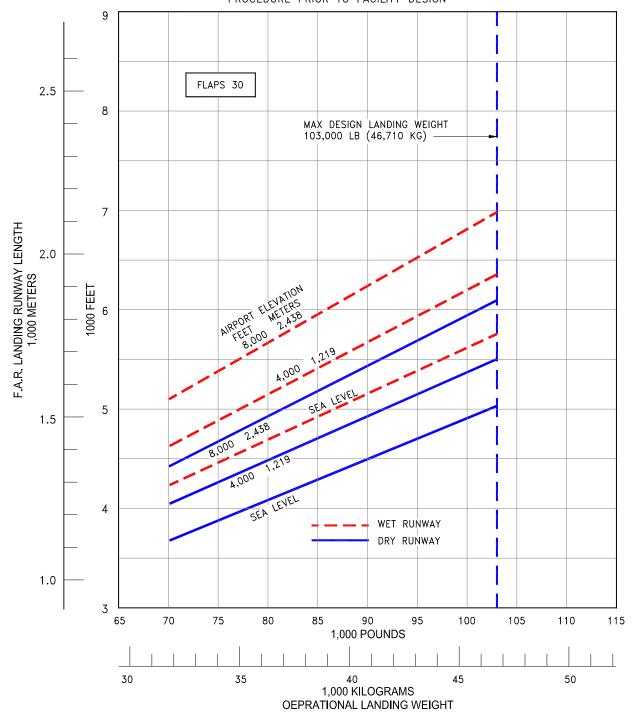
#### 3.4.3 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 25 MODEL 737-100

- \*  $V_{APP} = 1.3V_S$
- \* ZERO WIND
- \* FLAP POSITION 40
- AUTOMATIC SPEED BRAKES
  CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



#### 3.4.4 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 MODEL 737-200, -200C

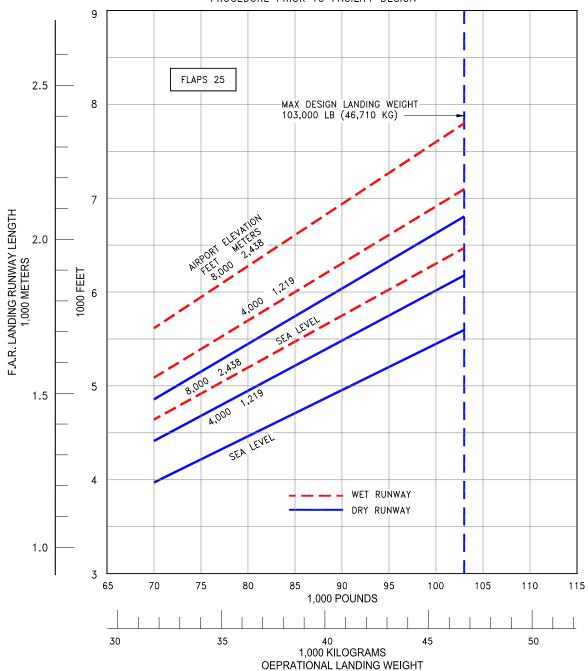
- \*  $V_{APP} = 1.3V_S$
- \* ZERO WIND
- \* FLAP POSITION 30
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



## 3.4.5 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30

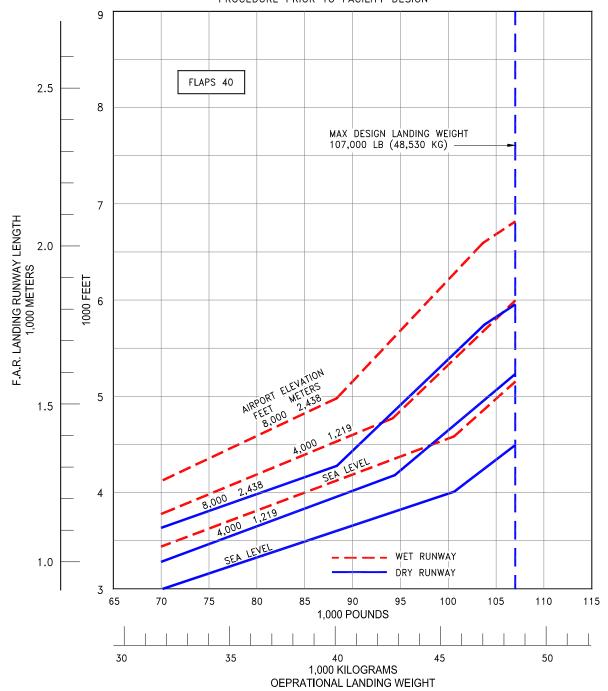
MODEL 737-200, -200C

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 25
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



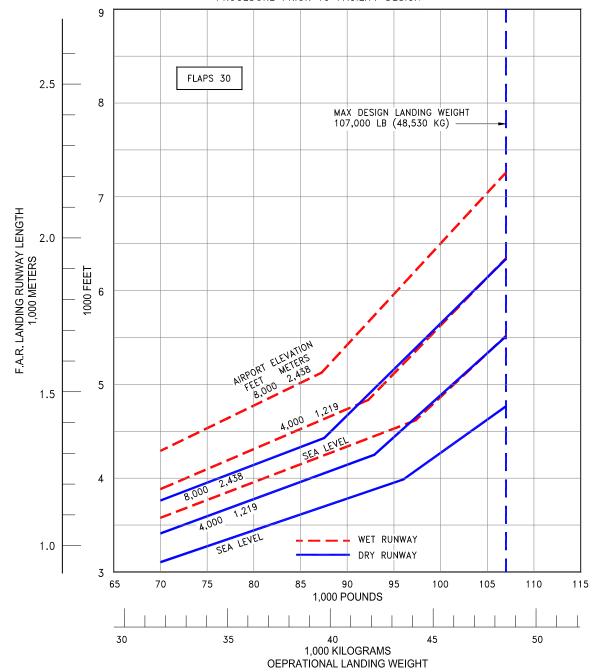
## 3.4.6 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 25 MODEL 737-200, -200C

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 40
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



# 3.4.7 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 MODEL ADVANCED 737-200, -200C

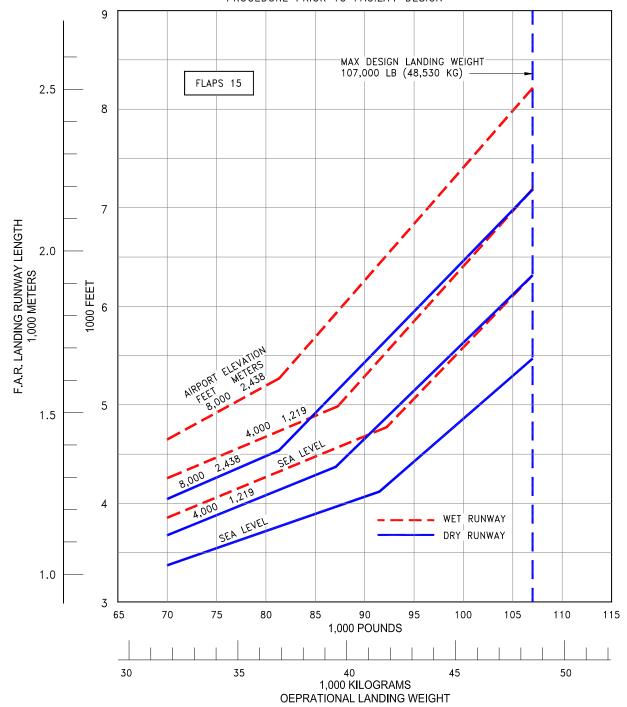
- \*  $V_{APP} = 1.3V_S$
- \* ZERO WIND
- \* FLAP POSITION 30
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



## 3.4.8 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30

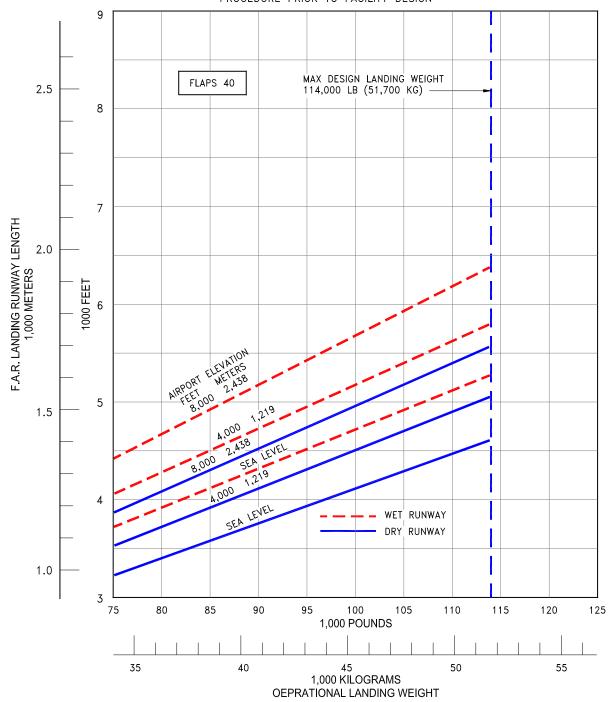
MODEL 737-ADVANCED 737-200, -200C

- \*  $V_{APP} = 1.3V_{S}$
- \* ZERO WIND
- \* FLAP POSITION 25
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



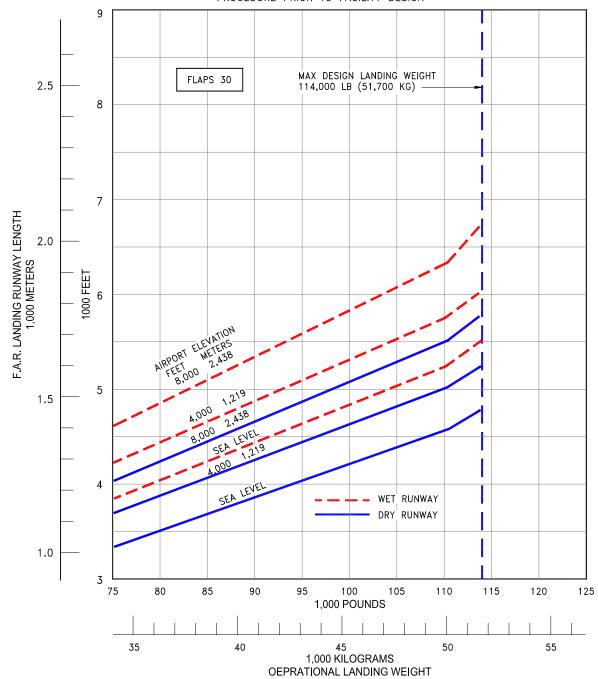
## 3.4.9 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 15 MODEL ADVANCED 737-200, -200C

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 40
- AUTOMATIC SPEED BRAKES
- CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



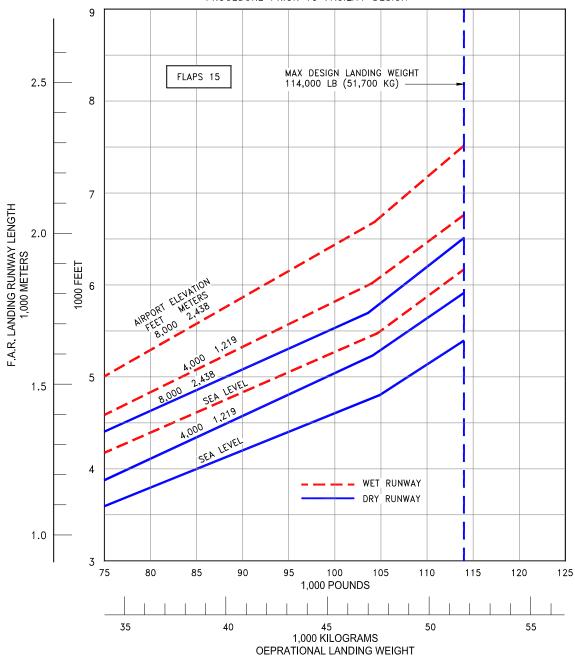
#### F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 3.4.10 MODEL 737-300

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- FLAP POSITION 30
- AUTOMATIC SPEED BRAKES
  CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



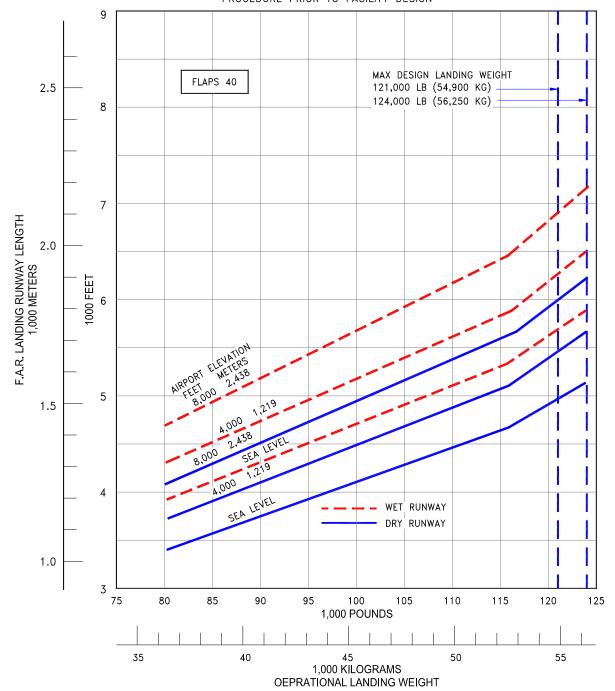
#### 3.4.11 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-600

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 15
- \* AUTOMATIC SPEED BRAKES
  \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



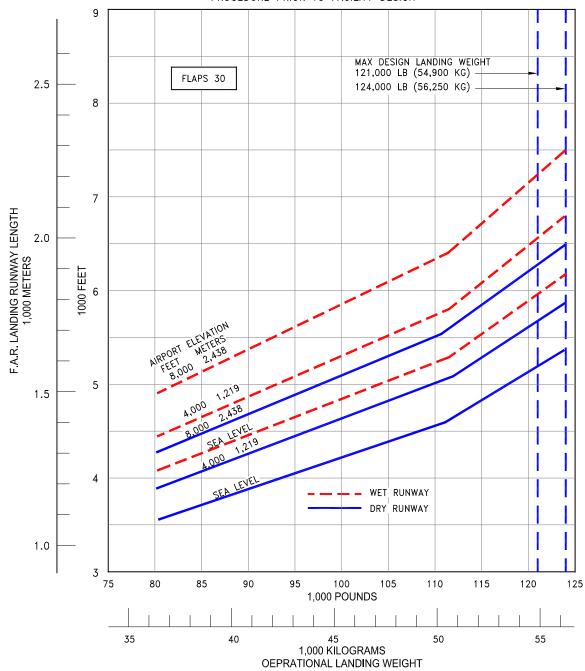
#### 3.4.12 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 15 MODEL 737-300

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 40
- \* AUTOMATIC SPEED BRAKES
- CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



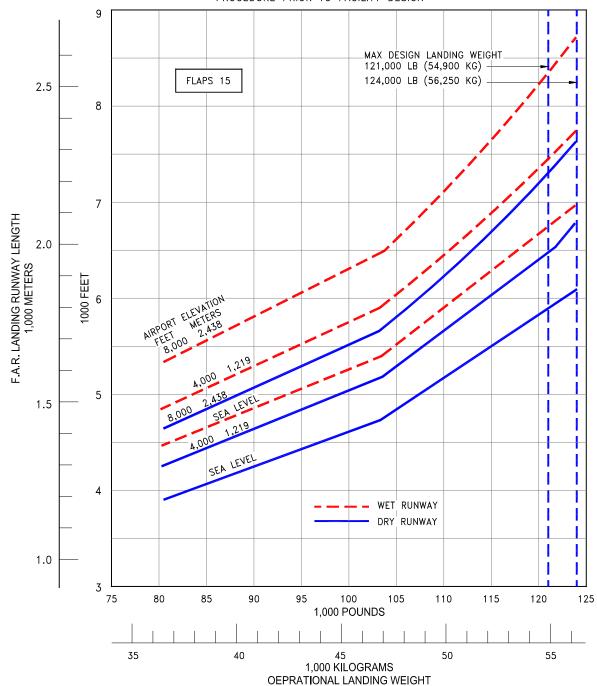
3.4.13 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 MODEL 737-400

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 30
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



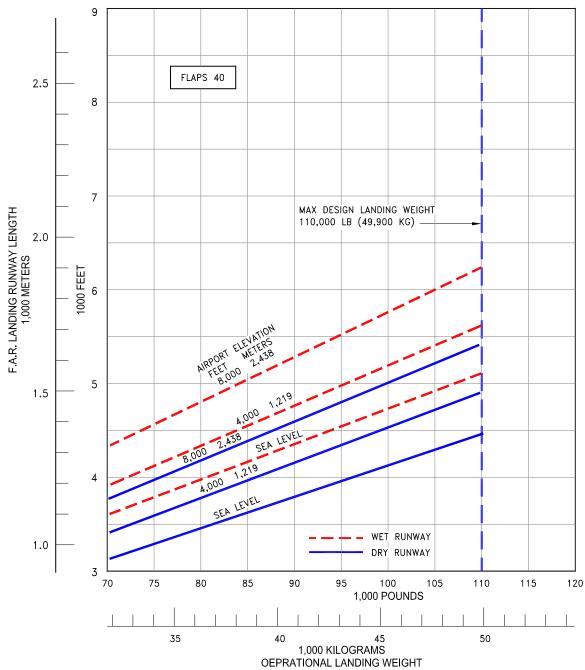
#### 3.4.14 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-400

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 15
- \* AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



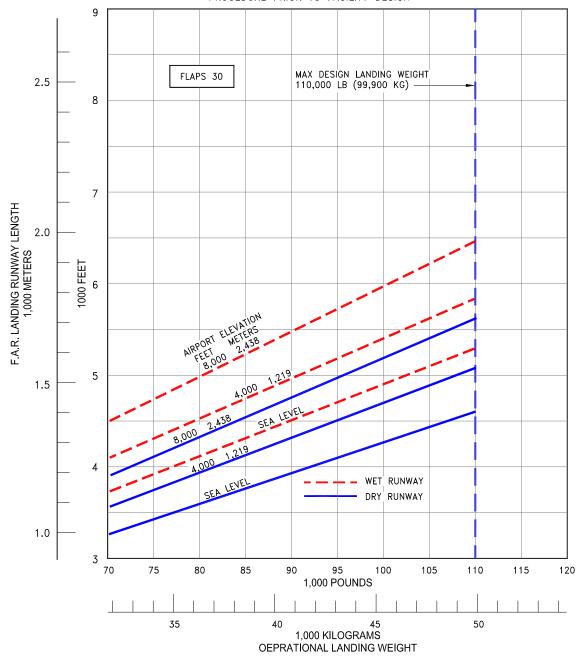
#### 3.4.15 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 15 MODEL 737-400

- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 40
- \* AUTOMATIC SPEED BRAKES
- CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



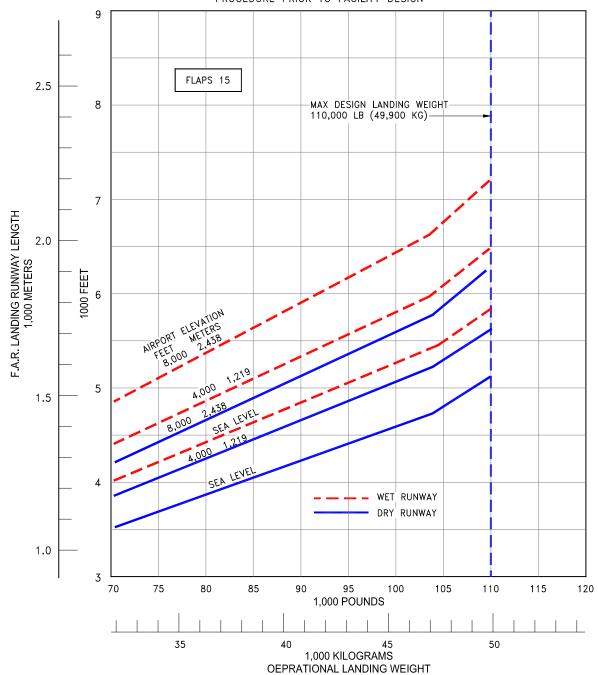
#### 3.4.16 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 40 MODEL 737-500

- $V_{APP} = 1.3V_{S}$ ZERO WIND, ZERO RUNWAY GRADIENT
- FLAP POSITION 30
- AUTOMATIC SPEED BRAKES
- CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



#### 3.4.17 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-500

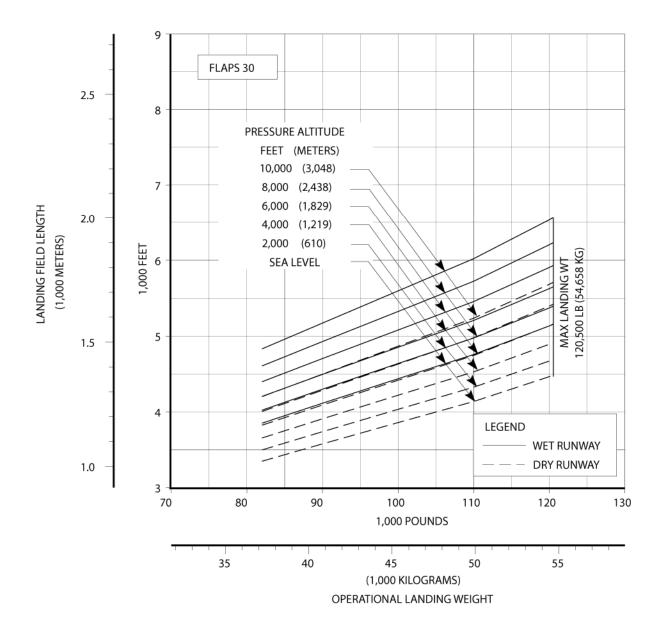
- \* V<sub>APP</sub> = 1.3V<sub>S</sub> \* ZERO WIND, ZERO RUNWAY GRADIENT
- \* FLAP POSITION 15
- AUTOMATIC SPEED BRAKES
- \* CONSULT WITH USING AIRLINE FOR SPECIFIC PROCEDURE PRIOR TO FACILITY DESIGN



#### 3.4.18 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 15 MODEL 737-500

Landing Field Length 737-600 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- AUTO SPOILERS OPERATIVE
- ANTI-SKID OPERATIVE
- ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

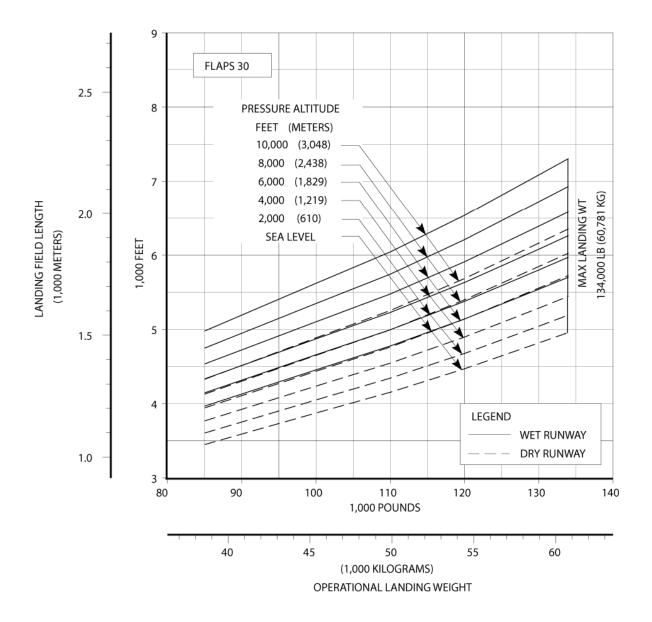


# 3.4.19 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-600

## Landing Field Length

737-700/-700W/-700ER/-700ERW/-700C/-700CW/BBJ1 (CFM56-7B Series)

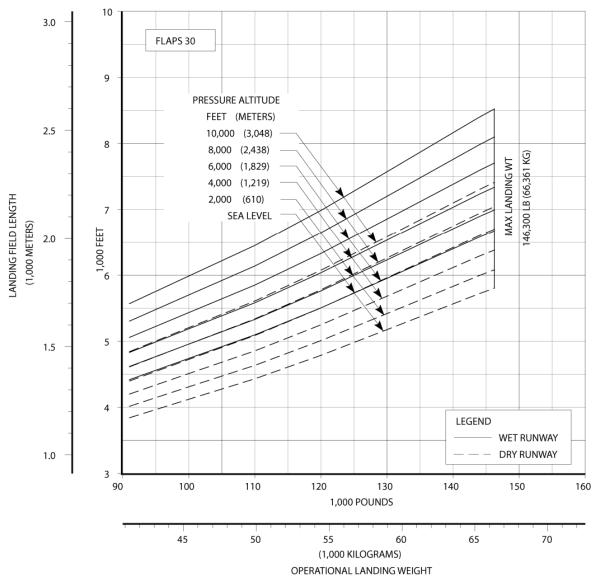
- STANDARD DAY, ZERO WIND
- AUTO SPOILERS OPERATIVE
- ANTI-SKID OPERATIVE
- ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



## 3.4.20 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-700ER

## Landing Field Length 737-800/-800W/BBJ2 (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- AUTO SPOILERS OPERATIVE
- ANTI-SKID OPERATIVE
- ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN

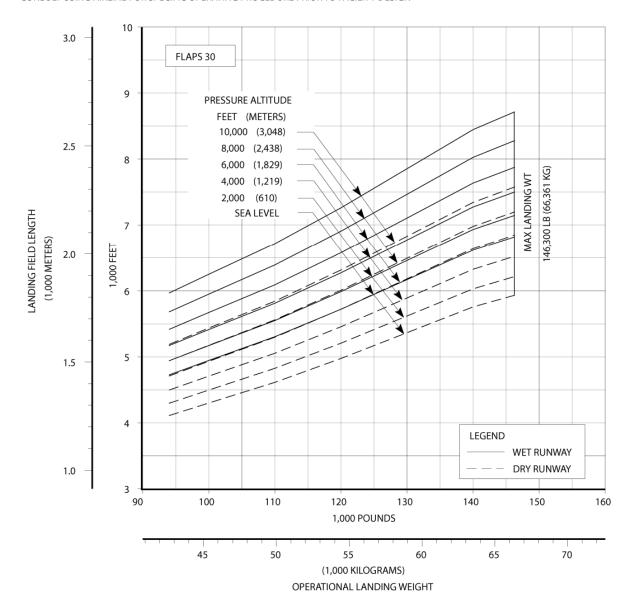


## 3.4.21 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-800

Landing Field Length

737-900/-900W (CFM56-7B Series)

- STANDARD DAY, ZERO WIND
- AUTO SPOILERS OPERATIVE
- ANTI-SKID OPERATIVE
- ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



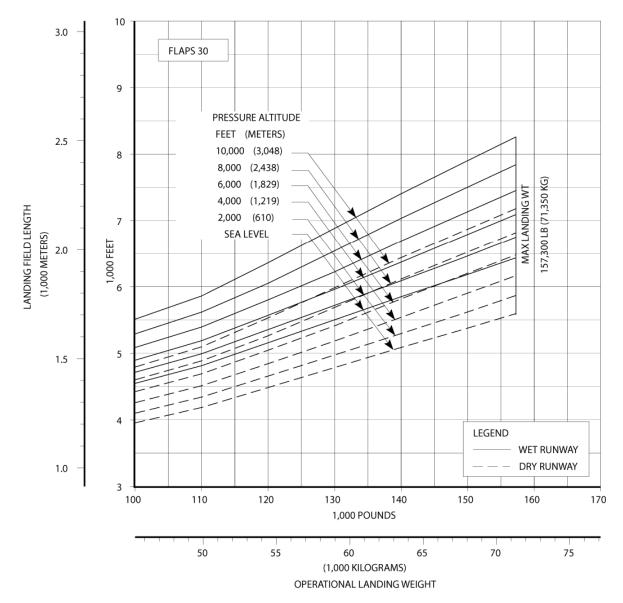
#### 3.4.22 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-900

### - STANDARD DAY, ZERO WIND

- AUTO SPOILERS OPERATIVE

Landing Field Length
737-900ER/-900ERW/BBJ3 (CFM56-7B Series)

- ANTI-SKID OPERATIVE
- ZERO RUNWAY GRADIENT
- CONSULT USING AIRLINE FOR SPECIFIC OPERATING PROCEDURE PRIOR TO FACILITY DESIGN



# 3.4.23 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 737-900ER

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