

# PRELIMINARY

## **3.0 AIRPLANE PERFORMANCE**

### **3.1 General Information**

### **3.2 Payload/Range for 0.845 Mach Cruise**

### **3.3 F.A.R. Takeoff Runway Length Requirements**

### **3.4 F.A.R. Landing Runway Length Requirements**

# PRELIMINARY

## 3.0 AIRPLANE PERFORMANCE

### 3.1 General Information

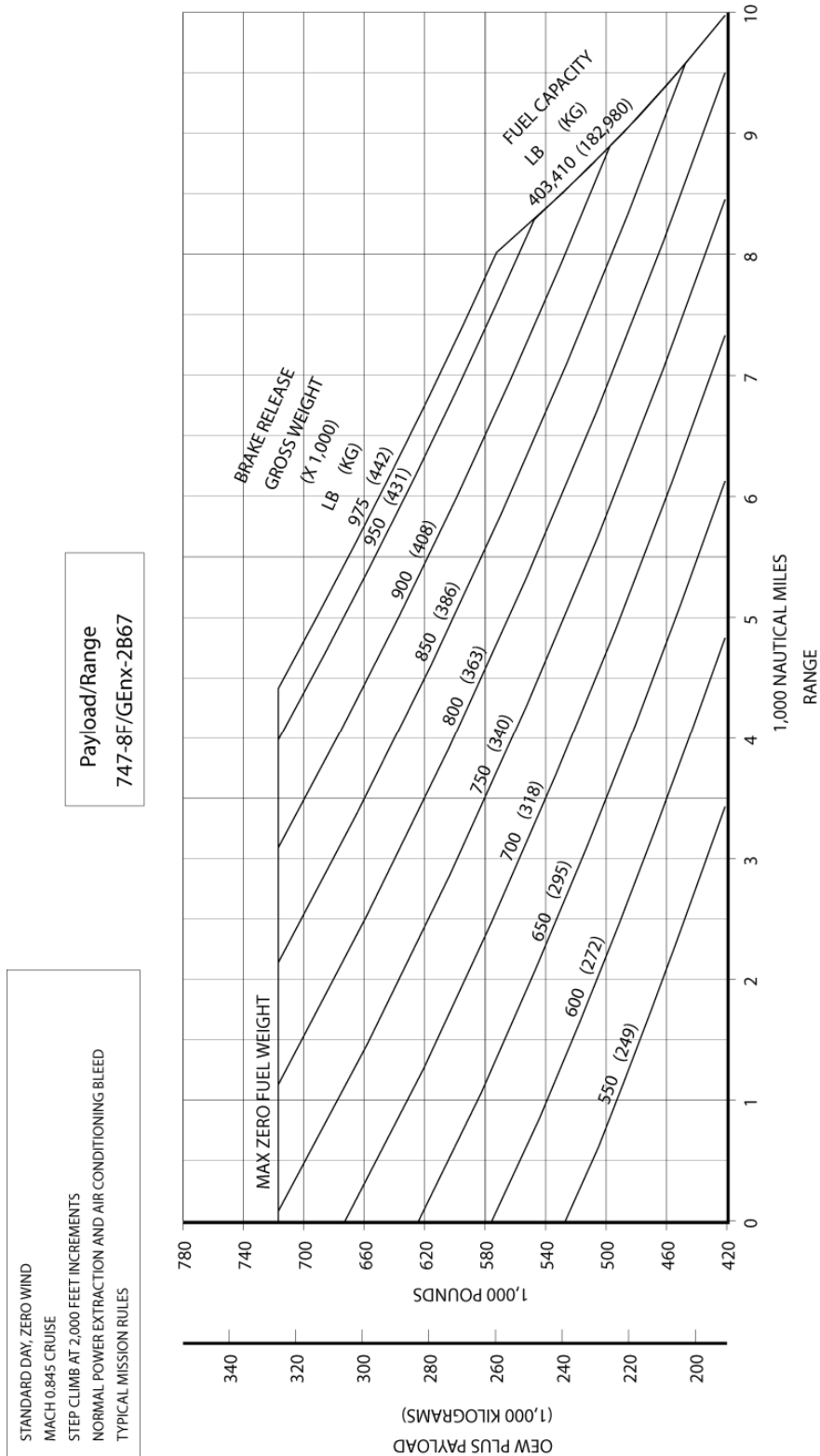
The graphs in Section 3.2 provide information on operational empty weight (OEW) and payload, trip range, brake release gross weight, and fuel limits for airplane models with the different engine options. To use these graphs, if the trip range and zero fuel weight (OEW + payload) are known, the approximate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

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	°F	°C
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
10,000	3,048	23.3	-4.81

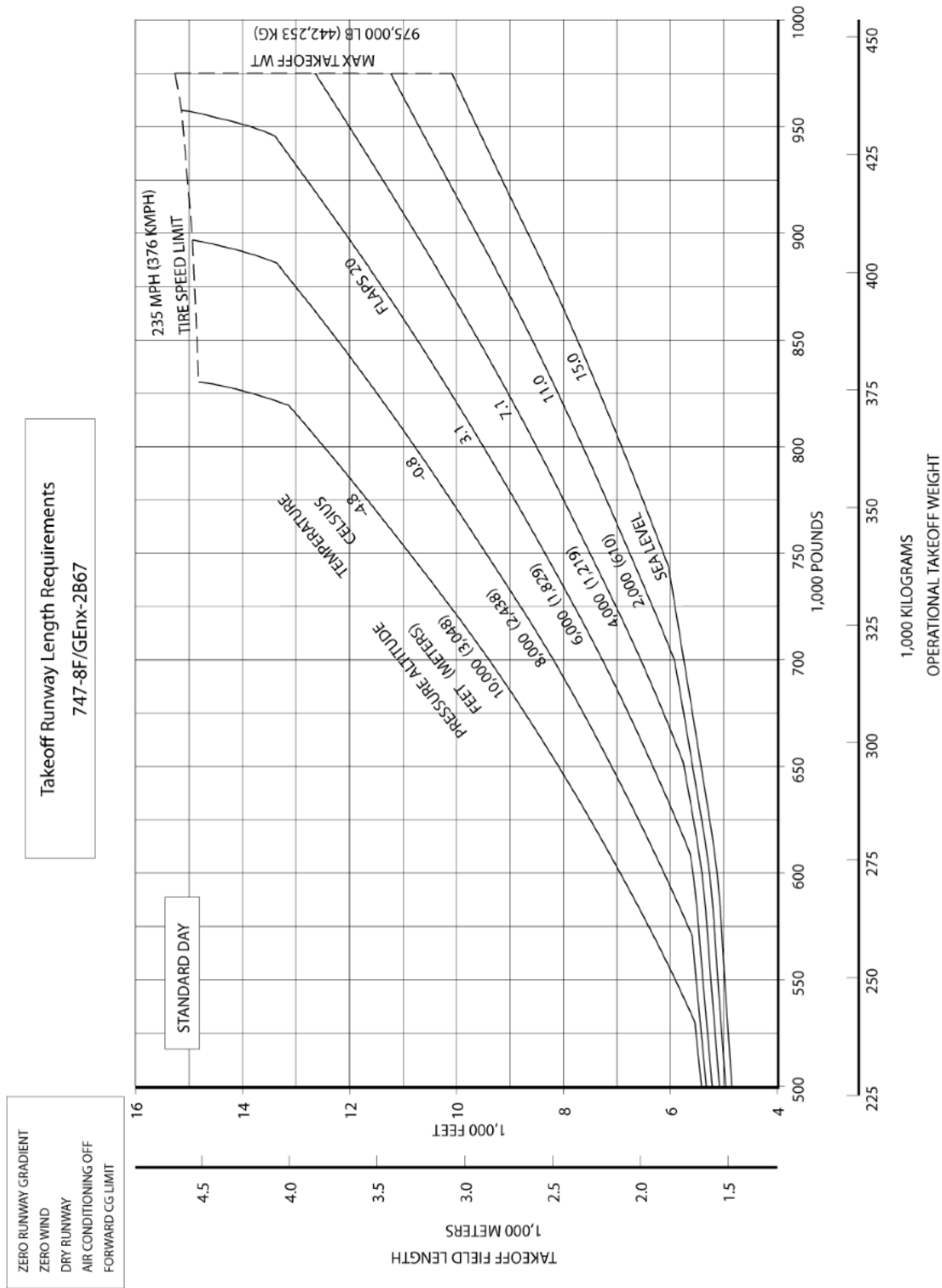
The graphs in Section 3.4 provide information on landing runway length requirements for different airplane weights and airport altitudes. The maximum landing weights shown are the heaviest for the particular airplane model.

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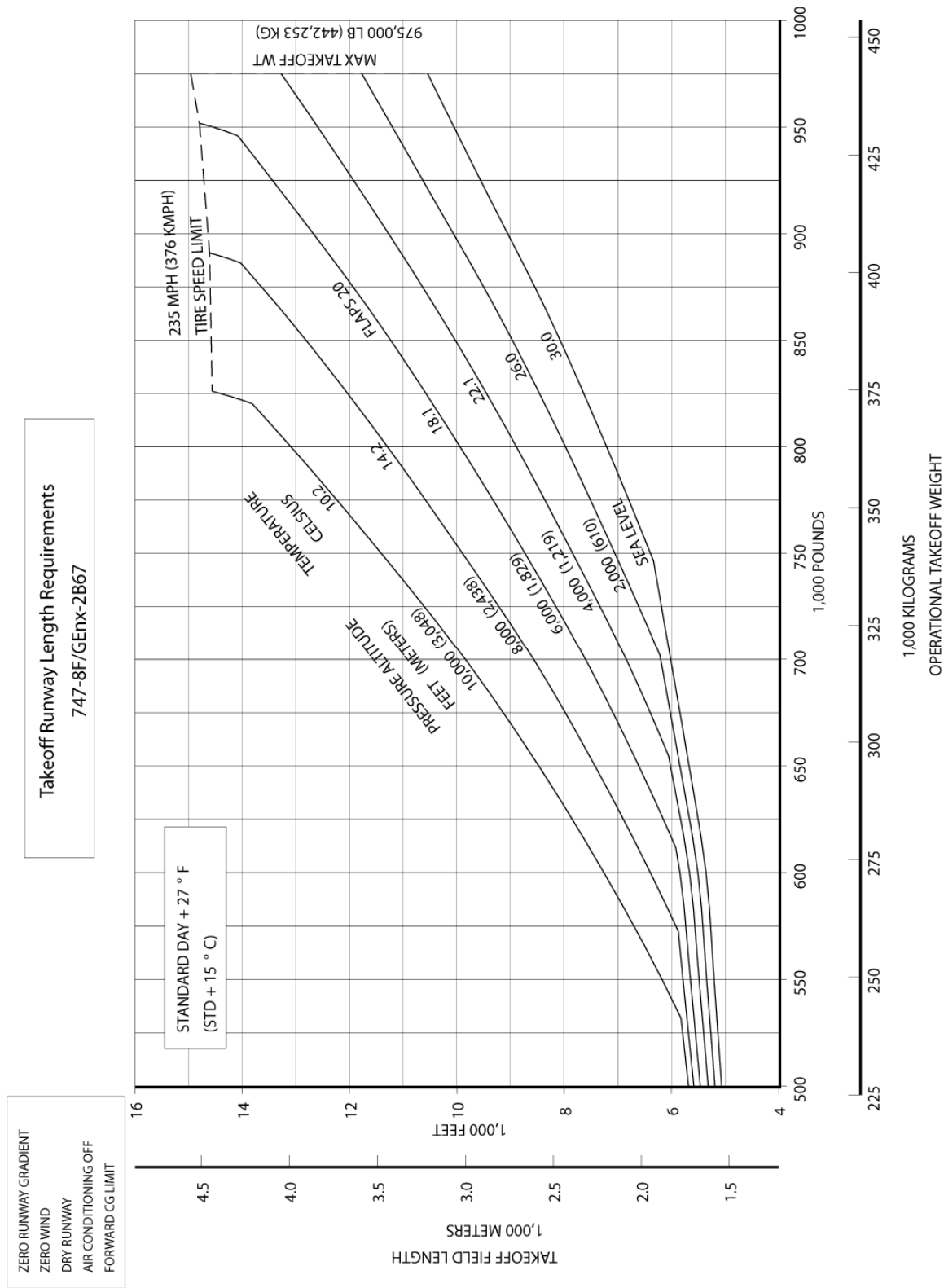
### 3.2 PAYLOAD/RANGE FOR 0.845 MACH CRUISE MODEL 747-8F

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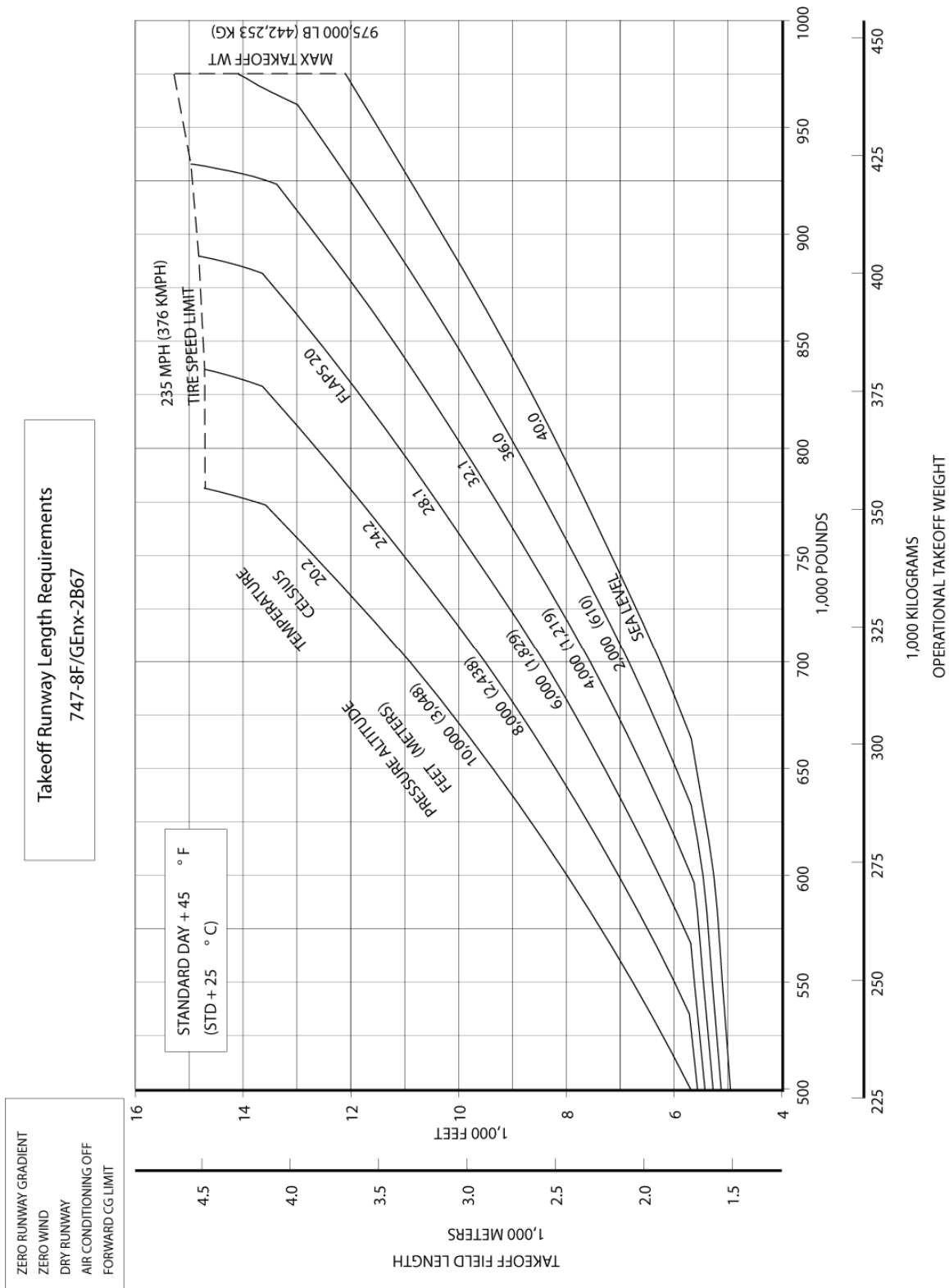
### 3.3.1 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY MODEL 747-8F

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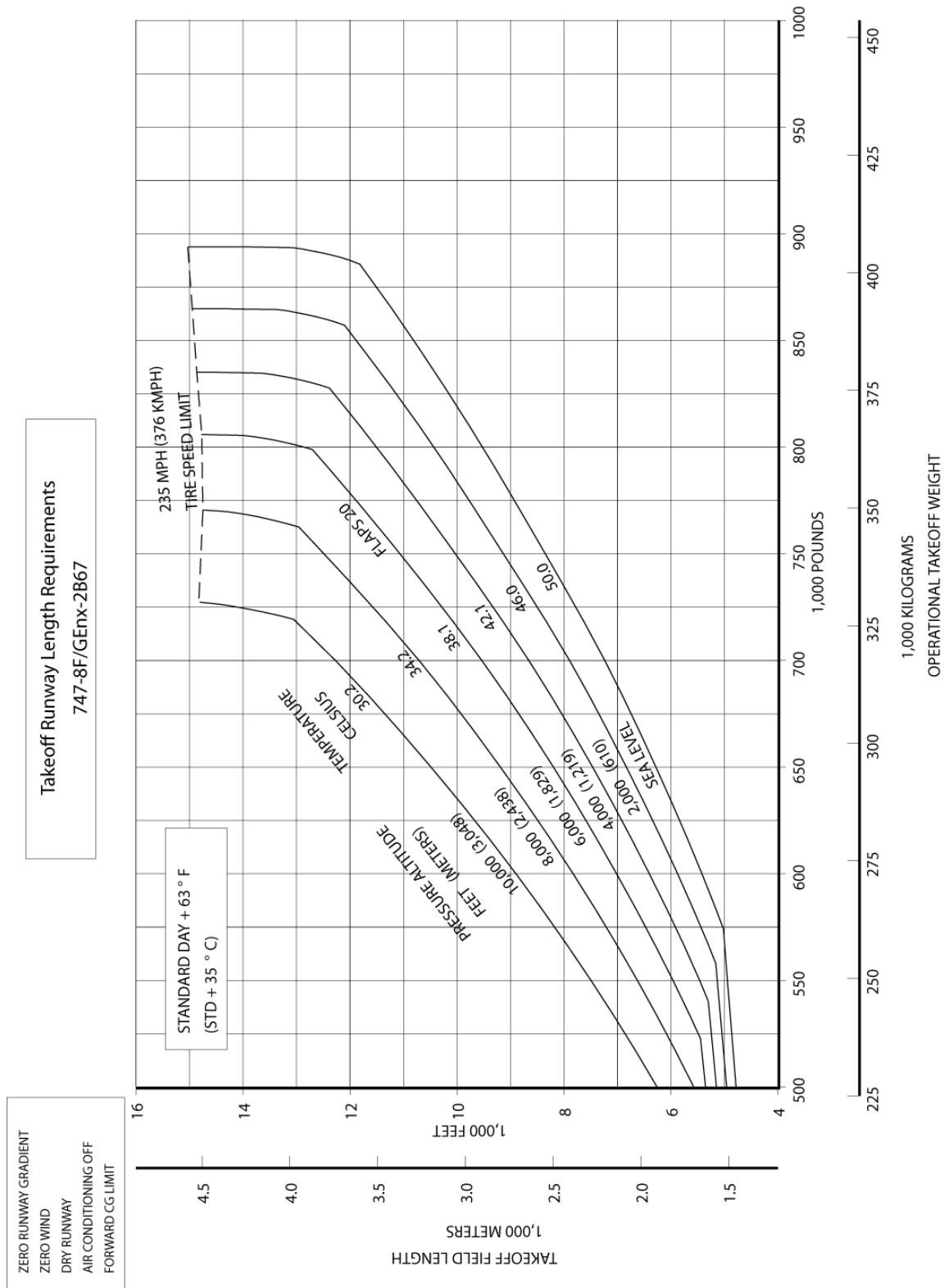
### 3.3.2 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY + 27°F (STD + 15°C) MODEL 747-8F

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### 3.3.3 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS - STANDARD DAY + 45°F (STD + 25°C) MODEL 747-8F

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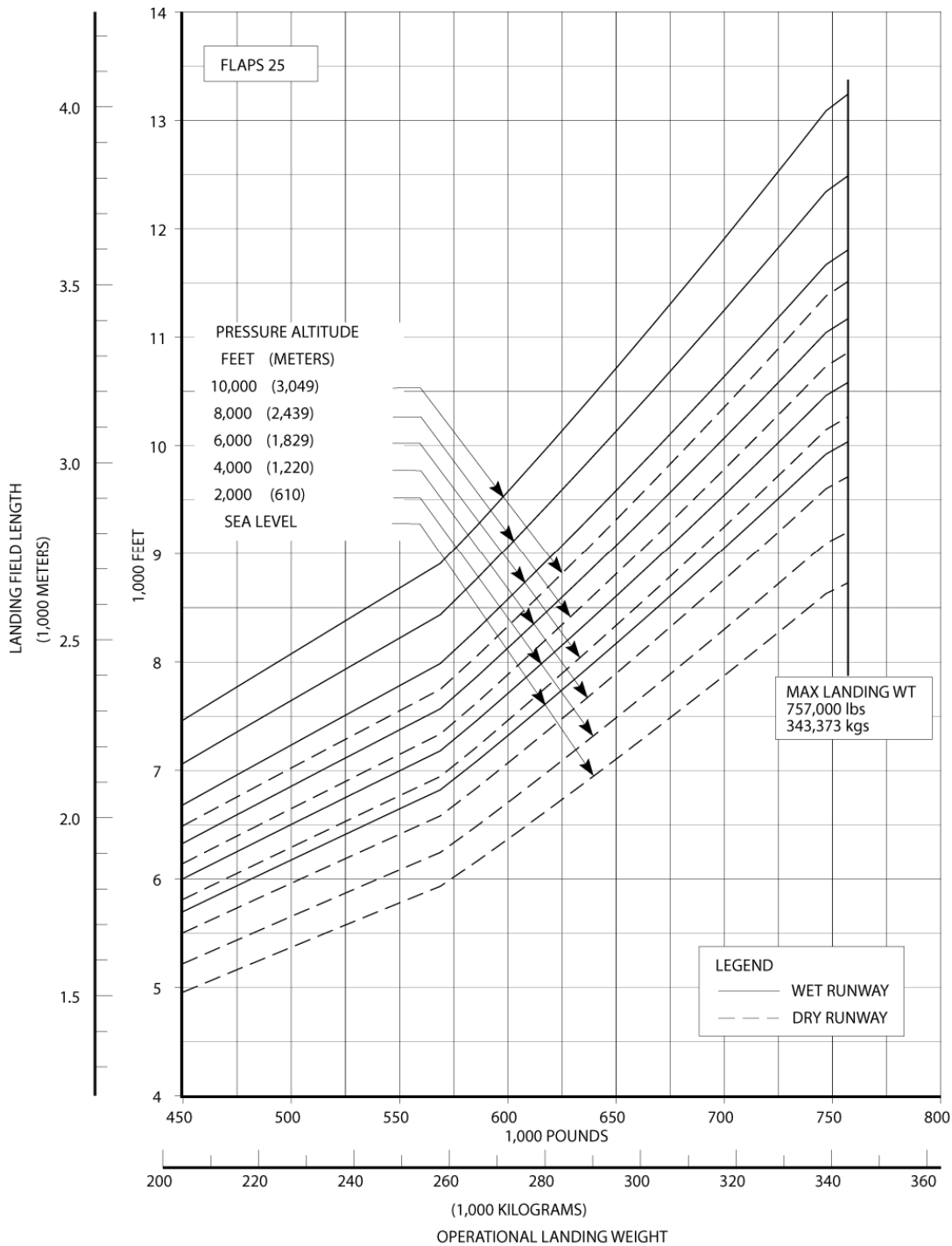


### 3.3.4 F.A.R. TAKEOFF RUNWAY LENGTH REQUIREMENTS – STANDARD DAY + 63 ° F (STD + 35 ° C) MODEL 747-8F

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STANDARD DAY, ZERO WIND  
 AUTO SPOILERS OPERATIVE  
 ANTI-SKID OPERATIVE  
 ZERO RUNWAY GRADIENT  
 AIR CONDITIONING OFF  
 FORWARD CG LIMIT

Landing Field Length  
 747-8F/GENx-2B67

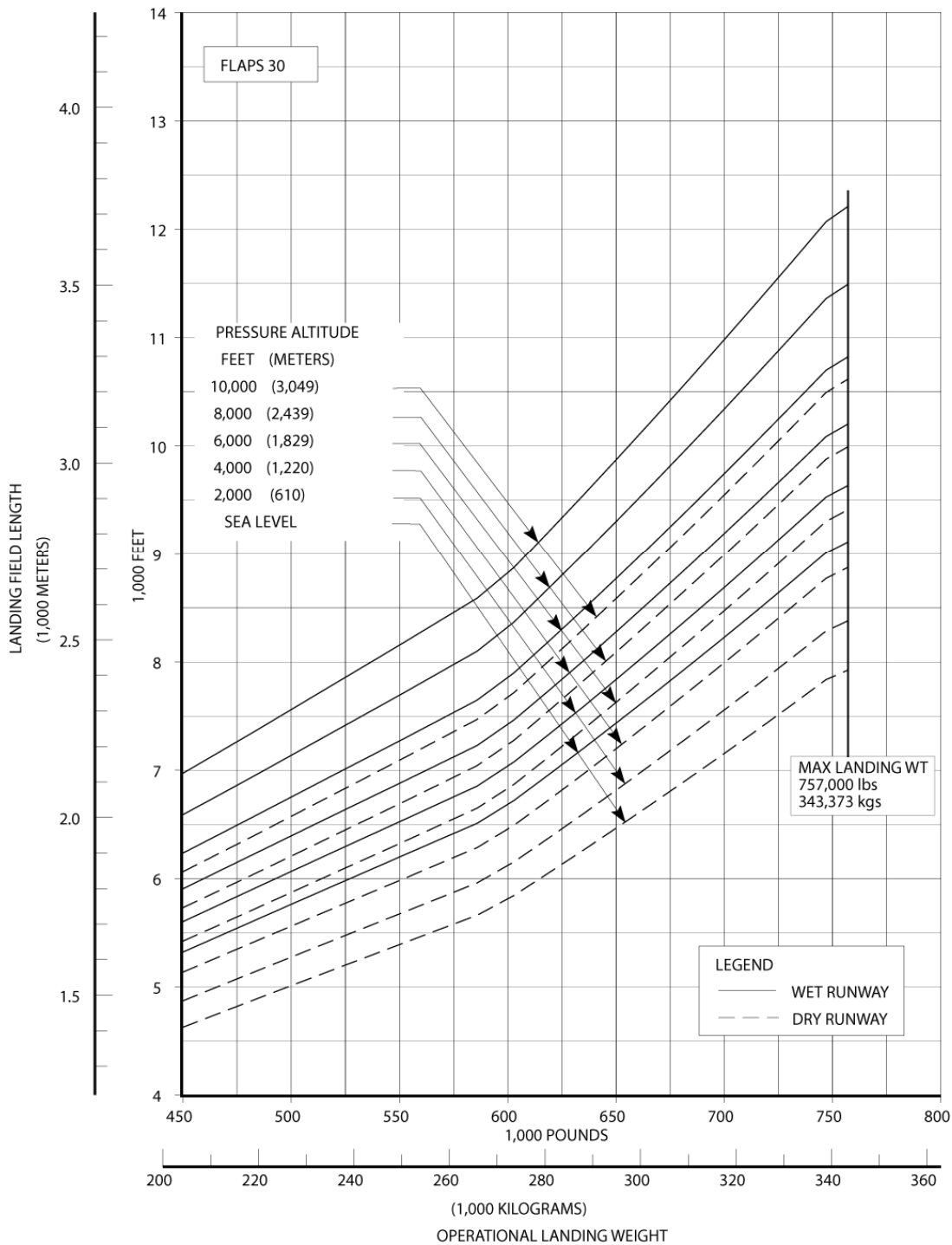


### 3.4.1 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 25 MODEL 747-8F

# PRELIMINARY

STANDARD DAY, ZERO WIND  
 AUTO SPOILERS OPERATIVE  
 ANTI-SKID OPERATIVE  
 ZERO RUNWAY GRADIENT  
 AIR CONDITIONING OFF  
 FORWARD CG LIMIT

Landing Field Length  
 747-8F/GEnx-2B67



### 3.4.2 F.A.R. LANDING RUNWAY LENGTH REQUIREMENTS - FLAPS 30 MODEL 747-8F

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