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<b>TEMA:</b> 0297	FLT/DSP - (CHAP. 04) PERFORMANCE	
<b>COD_PREG:</b> 8133	<b>PREGUNTA:</b> What effective runway length is required for a turbojet-powered airplane at the destination airport if the runways are forecast to be wet or slippery at the ETA?	<b>RPTA:</b> B
<b>OPCION A:</b>	70 percent of the actual runway available, from a height of 50 feet over the threshold.	
<b>OPCION B:</b>	115 percent of the runway length required for a dry runway.	
<b>OPCION C:</b>	115 percent of the runway length required for a wet runway.	
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8134	For which of these aircraft is the "clearway" for a particular runway considered in computing takeoff weight limitations?	B
<b>OPCION A:</b>	Those passenger-carrying transport aircraft certificated between August 26, 1957 and August 30, 1959.	
<b>OPCION B:</b>	Turbine-engine-powered transport airplanes certificated after September 30, 1958.	
<b>OPCION C:</b>	U.S. certified air carrier airplanes certificated after August 29, 1959.	
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8344	How can turbulent air cause an increase in stalling speed of an airfoil?	A
<b>OPCION A:</b>	An abrupt change in relative wind.	
<b>OPCION B:</b>	A decrease in angle of attack.	
<b>OPCION C:</b>	Sudden decrease in load factor.	
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8369	If an engine failure occurs at an altitude above single-engine ceiling, what airspeed should be maintained?	B
<b>OPCION A:</b>	V <sub>mc</sub> .	
<b>OPCION B:</b>	V <sub>yse</sub> .	
<b>OPCION C:</b>	V <sub>xse</sub> .	
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8370	What is the resulting performance loss when one engine on a twin-engine fails?	B
<b>OPCION A:</b>	Reduction of cruise airspeed by 50 percent.	
<b>OPCION B:</b>	Reduction of climb by 50 percent or more.	
<b>OPCION C:</b>	Reduction of all performance by 50 percent.	
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8371	Under what condition is V <sub>mc</sub> the highest?	B
<b>OPCION A:</b>	Gross weight is at the maximum allowable value.	
<b>OPCION B:</b>	CG is at the most rearward allowable position.	
<b>OPCION C:</b>	CG is at the most forward allowable position.	
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8374	What effect does landing at high elevation airports have on groundspeed with comparable conditions relative to temperature, wind, and airplane weight?	A
<b>OPCION A:</b>	Higher than at low elevation.	
<b>OPCION B:</b>	Lower than at low elevation.	
<b>OPCION C:</b>	The same as at low elevation.	
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8381	Which maximum range factor decreases as weight decreases?	C
<b>OPCION A:</b>	Angle of attack.	
<b>OPCION B:</b>	Altitude.	
<b>OPCION C:</b>	Airspeed.	
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8383	What performance is characteristic of flight at maximum L/D in a propeller-driven airplane?	A
<b>OPCION A:</b>	Maximum range and distance glide.	
<b>OPCION B:</b>	Best angle of climb.	
<b>OPCION C:</b>	Maximum endurance.	
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8398	What should a pilot do to maintain "best range" airplane performance when a tailwind is encountered?	C
<b>OPCION A:</b>	Increase speed.	
<b>OPCION B:</b>	Maintain speed.	
<b>OPCION C:</b>	Decrease speed.	
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8400	At what speed, with reference to L/D <sub>max</sub> , does maximum rate-of-climb for a jet airplane occur?	A
<b>OPCION A:</b>	A speed greater than that for L/D <sub>max</sub> .	
<b>OPCION B:</b>	A speed equal to that for L/D <sub>max</sub> .	
<b>OPCION C:</b>	A speed less than that for L/D <sub>max</sub> .	

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8401 At what speed, with reference to L/Dmax, does maximum range for a jet airplane occur? C  
**OPCION A:** A speed less than that for L/Dmax.  
**OPCION B:** A speed equal to that for L/Dmax.  
**OPCION C:** A speed greater than that for L/Dmax.

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8459 Figure 12 A  
Given the following conditions, what is the minimum torque for takeoff?  
Pressure altitude ..... 9,000 ft  
Tempertaure (OAT) ..... +3°C  
Ice vanes ..... Extended  
**OPCION A:** 3,100 foot-pound.  
**OPCION B:** 3,040 foot-pound.  
**OPCION C:** 3,180 foot-pound.

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8460 Figure 12 A  
Given the following conditions, what is the minimum torque for takeoff?  
Pressure altitude ..... 7,500 ft  
Tempertaure (OAT) ..... +35°C  
Ice vanes ..... Retracted  
**OPCION A:** 2,820 foot-pound.  
**OPCION B:** 2,880 foot-pound.  
**OPCION C:** 2,780 foot-pound.

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8461 Figure 12 B  
Given the following conditions, what is the minimum torque for takeoff?  
Pressure altitude ..... 7,500 ft  
Tempertaure (OAT) ..... +9°C  
Ice vanes ..... Extended  
**OPCION A:** 3,200 foot-pound.  
**OPCION B:** 3,160 foot-pound.  
**OPCION C:** 3,330 foot-pound.

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8462 Figure 12 B  
Given the following conditions, what is the minimum torque for takeoff?  
Pressure altitude ..... 3,500 ft  
Tempertaure (OAT) ..... +43°C  
Ice vanes ..... Retracted  
**OPCION A:** 3,000 foot-pound.  
**OPCION B:** 3,050 foot-pound.  
**OPCION C:** 3,110 foot-pound.

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8463 Figure 12 C  
Given the following conditions, what is the minimum torque for takeoff?  
Pressure altitude ..... 5,500 ft  
Tempertaure (OAT) ..... +29°C  
Ice vanes ..... Retracted  
**OPCION A:** 2,950 foot-pound.  
**OPCION B:** 3,100 foot-pound.  
**OPCION C:** 3,200 foot-pound.

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8464 Figure 13 C  
Given the following conditions, what is the takeoff distance over a 50-foot obstacle?

Pressure altitude ..... Sea Level  
Tempertaure (OAT) ..... +12°C  
Weight ..... 16,000 lb  
Wind component ..... 16 kts HW  
Ice vanes ..... Extended

- OPCION A:** 1,750 feet.  
**OPCION B:** 2,800 feet.  
**OPCION C:** 2,550 feet.
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8465 Figure 13 A  
Given the following conditions, what is the takeoff ground roll and V1 speed?

Pressure altitude ..... 4,000 ft  
Tempertaure (OAT) ..... 0°C  
Weight ..... 15,500 lb  
Wind component ..... 16 kts TW  
Ice vanes ..... Extended

- OPCION A:** 2,900 feet, 106 knots.  
**OPCION B:** 4,250 feet, 102 knots.  
**OPCION C:** 2,700 feet, 107 knots.
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8466 Figure 13 B  
Given the following conditions, what is the takeoff distance over a 50-foot obstacle?

Pressure altitude ..... 2,000 ft  
Tempertaure (OAT) ..... +15°C  
Weight ..... 16,600 lb  
Wind component ..... Calm  
Ice vanes ..... Retracted

- OPCION A:** 3,400 feet.  
**OPCION B:** 3,700 feet.  
**OPCION C:** 4,200 feet.
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8467 Figure 13 A  
Given the following conditions, what is the takeoff ground roll and V1 speed?

Pressure altitude ..... 3,000 ft  
Tempertaure (OAT) ..... -10°C  
Weight ..... 15,000 lb  
Wind component ..... 8 kts TW  
Ice vanes ..... Extended

- OPCION A:** 2,200 feet, 105 knots.  
**OPCION B:** 2,000 feet, 113 knots.  
**OPCION C:** 1,900 feet, 103 knots.
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8468 Figure 13 A  
Given the following conditions, what is the takeoff distance over a 50-foot obstacle?

Pressure altitude ..... 6,000 ft  
Tempertaure (OAT) ..... +35°C  
Weight ..... 14,500 lb  
Wind component ..... 10 kts HW  
Ice vanes ..... Retracted

- OPCION A:** 4,150 feet.  
**OPCION B:** 4,550 feet.  
**OPCION C:** 2,600 feet.
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8469 Figure 14 C  
Given the following conditions, what is the accelerate-stop field length?

Pressure altitude ..... 5,000 ft  
Tempertaure (OAT) ..... +20°C  
Weight ..... 15,000 lb  
Wind component ..... 10 kts HW  
Ice vanes ..... Retracted

- OPCION A:** 6,300 feet.  
**OPCION B:** 4,700 feet.  
**OPCION C:** 4,300 feet.
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8470 Figure 14 C  
Given the following conditions, what is the accelerate-stop field length?

Pressure altitude ..... 2,000 ft  
Tempertaure (OAT) ..... -15°C  
Weight ..... 16,000 lb  
Wind component ..... 5 kts HW  
Ice vanes ..... Extended

- OPCION A:** 3,750 feet.  
**OPCION B:** 4,600 feet.  
**OPCION C:** 4,250 feet.
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8471 Figure 14 A  
Given the following conditions, what is the accelerate-stop field length?

Pressure altitude ..... 6,000 ft  
Tempertaure (OAT) ..... +10°C  
Weight ..... 16,600 lb  
Wind component ..... 15 kts HW  
Ice vanes ..... Retracted

- OPCION A:** 4,950 feet.  
**OPCION B:** 4,800 feet.  
**OPCION C:** 5,300 feet.
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8472 Fig. 14 B  
Given the following conditions, what is the accelerate-stop field length?

Pressure altitude ..... 8,000 ft  
Tempertaure (OAT) ..... -5°C  
Weight ..... 14,000 lb  
Wind component ..... 4 kts TW  
Ice vanes ..... Extended

- OPCION A:** 4,500 feet.  
**OPCION B:** 4,800 feet.  
**OPCION C:** 5,300 feet.
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8473 Figure 14 C  
Given the following conditions, what is the accelerate-stop field length?

Pressure altitude ..... Sea Level  
Tempertaure (OAT) ..... +30°C  
Weight ..... 13,500 lb  
Wind component ..... 14 kts HW  
Ice vanes ..... Retracted

- OPCION A:** 2,500 feet.  
**OPCION B:** 2,850 feet.  
**OPCION C:** 3,050 feet.
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8474	Figures 15,16,17 What is the two-engine rate of climb after takeoff in climb configuration for Operating Conditions BE-21?	C
<b>OPCION A:</b>	1,350 ft/min.	
<b>OPCION B:</b>	2,450 ft/min.	
<b>OPCION C:</b>	2,300 ft/min.	

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8475	Figures 15,16,17 What is the single-engine climb gradient after takeoff in climb configuration for Operating Conditions BE-22?	C
<b>OPCION A:</b>	6.8 percent gradient.	
<b>OPCION B:</b>	7.5 percent gradient.	
<b>OPCION C:</b>	5.6 percent gradient.	

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8476	Figures 15,16,17 What is the two-engine rate of climb after takeoff in climb configuration for Operating Conditions BE-23?	B
<b>OPCION A:</b>	1,500 ft/min.	
<b>OPCION B:</b>	2,600 ft/min.	
<b>OPCION C:</b>	2,490 ft/min.	

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8477	Figures 15,16,17 What is the two-engine rate of climb after takeoff in climb configuration for Operating Conditions BE-24?	A
<b>OPCION A:</b>	2,100 ft/min.	
<b>OPCION B:</b>	2,400 ft/min.	
<b>OPCION C:</b>	1,500 ft/min.	

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8478	Figures 15,16,17 What is the single-engine climb gradient after takeoff in climb configuration for Operating Conditions BE-25?	C
<b>OPCION A:</b>	385 ft/min.	
<b>OPCION B:</b>	780 ft/min.	
<b>OPCION C:</b>	665 ft/min.	

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8479	Figures 15 and 18 What are the time, fuel, and distance from the start of climb to cruise altitude for Operating Conditions BE-21?	B
<b>OPCION A:</b>	10.0 minutes; 290 pounds; 35 NM.	
<b>OPCION B:</b>	10.0 minutes; 165 pounds; 30 NM.	
<b>OPCION C:</b>	11.5 minutes; 165 pounds; 30 NM.	

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8480	Figures 15 and 18 What are the time, fuel, and distance from the start of climb to cruise altitude for Operating Conditions BE-22?	B
<b>OPCION A:</b>	12.0 minutes; 220 pounds; 40 NM.	
<b>OPCION B:</b>	11.0 minutes; 185 pounds; 37 NM.	
<b>OPCION C:</b>	10.5 minutes; 175 pounds; 32 NM.	

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8481	Figures 15 and 18 What are the time, fuel, and distance from the start of climb to cruise altitude for Operating Conditions BE-23?	B
<b>OPCION A:</b>	13.0 minutes; 180 pounds; 35 NM.	
<b>OPCION B:</b>	14.0 minutes; 210 pounds; 40 NM.	
<b>OPCION C:</b>	15.0 minutes; 240 pounds; 46 NM.	

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8482	Figures 15 and 18 What are the time, fuel, and distance from the start of climb to cruise altitude for Operating Conditions BE-24?	C
<b>OPCION A:</b>	12.0 minutes; 220 pounds; 45 NM.	
<b>OPCION B:</b>	9.0 minutes; 185 pounds; 38 NM.	
<b>OPCION C:</b>	10.0 minutes; 170 pounds; 30 NM.	

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8483	Figures 15 and 18 What are the time, fuel, and distance from the start of climb to cruise altitude for Operating Conditions BE-25?	C
<b>OPCION A:</b>	11.5 minutes; 170 pounds; 31 NM.	
<b>OPCION B:</b>	8.0 minutes; 270 pounds; 28 NM.	
<b>OPCION C:</b>	12.5 minutes; 195 pounds; 38 NM.	

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8484 Figures 19 and 20 A  
At what altitude is the service ceiling with one engine inoperative for Operating Conditions BE-26?

**OPCION A:** 13,000 feet.  
**OPCION B:** 14,200 feet.  
**OPCION C:** 13,600 feet.

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8485 Figures 19 and 20 B  
Which statement is true regarding performance with one engine inoperative for Operating Conditions BE-27?

**OPCION A:** Cimb rate at the MEA is more than 50 ft/min.  
**OPCION B:** Service ceiling is below the MEA.  
**OPCION C:** Bleed air OFF improves service ceiling by 3,000 feet.

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8486 Figures 19 and 20 C  
At what altitude is the service ceiling with one engine inoperative for Operating Conditions BE-28?

**OPCION A:** 1,500 feet above the MEA.  
**OPCION B:** 10,400 feet.  
**OPCION C:** 11,800 feet.

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8487 Figures 19 and 20 A  
Which statement is true regarding performance with one engine inoperative for Operating Conditions BE-29?

**OPCION A:** Service ceiling is more than 100 feet above the MEA.  
**OPCION B:** Bleed air must be OFF to obtain a rate of climb of 50 ft/min at the MEA.  
**OPCION C:** Climb is not possible at the MEA.

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8488 Figures 19 and 20 C  
At what altitude is the service ceiling with one engine inoperative for Operating Conditions BE-30?

**OPCION A:** 9,600 feet.  
**OPCION B:** 13,200 feet.  
**OPCION C:** 2,100 feet above the MEA.

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8489 Figures 21 to 25 B  
What is the en route time of the cruise leg for Operating Conditions BE-31?

**OPCION A:** 1 hour 11 minutes.  
**OPCION B:** 1 hour 17 minutes.  
**OPCION C:** 1 hour 19 minutes.

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8490 Figures 21 to 25 A  
What is the en route time of the cruise leg for Operating Conditions BE-32?

**OPCION A:** 1 hour 13 minutes.  
**OPCION B:** 1 hour 15 minutes.  
**OPCION C:** 1 hour 20 minutes.

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8491 Figures 21 to 25 C  
What is the en route time of the cruise leg for Operating Conditions BE-33?

**OPCION A:** 1 hour 50 minutes.  
**OPCION B:** 1 hour 36 minutes.  
**OPCION C:** 1 hour 46 minutes.

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8492 Figures 21 to 25 A  
What is the en route time of the cruise leg for Operating Conditions BE-34?

**OPCION A:** 1 hour 6 minutes.  
**OPCION B:** 1 hour 3 minutes.  
**OPCION C:** 1 hour 11 minutes.

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8493 Figures 21 to 25 C  
What is the en route time of the cruise leg for Operating Conditions BE-35?

**OPCION A:** 1 hour 6 minutes.  
**OPCION B:** 1 hour 8 minutes.  
**OPCION C:** 1 hour 10 minutes.

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8494	Figures 21 to 25 What is the fuel consumption during the cruise leg for Operating Conditions BE-31?	A
<b>OPCION A:</b> 812 pounds. <b>OPCION B:</b> 749 pounds. <b>OPCION C:</b> 870 pounds.		
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8495	What is the fuel consumption during the cruise leg for Operating Conditions BE-32?	C
<b>OPCION A:</b> 1,028 pounds. <b>OPCION B:</b> 896 pounds. <b>OPCION C:</b> 977 pounds.		
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8496	Fig. 21 to 25 What is the fuel consumption during the cruise leg for Operating Conditions BE-33?	B
<b>OPCION A:</b> 1,165 pounds. <b>OPCION B:</b> 1,373 pounds. <b>OPCION C:</b> 976 pounds.		
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8497	Figures 21 to 25 What is the fuel consumption during the cruise leg for Operating Conditions BE-34?	B
<b>OPCION A:</b> 668 pounds. <b>OPCION B:</b> 718 pounds. <b>OPCION C:</b> 737 pounds.		
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8498	Figures 21 to 25 What is the fuel consumption during the cruise leg for Operating Conditions BE-35?	C
<b>OPCION A:</b> 900 pounds. <b>OPCION B:</b> 1,030 pounds. <b>OPCION C:</b> 954 pounds.		
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8499	Figure 26 What are the time and distance to descend from 18,000 feet to 2,500 feet?	A
<b>OPCION A:</b> 10.3 minutes, 39 NM. <b>OPCION B:</b> 9.8 minutes, 33 NM. <b>OPCION C:</b> 10.0 minutes, 36 NM.		
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8500	Figure 26 What are the distance and fuel consumption to descend from 22,000 feet to 4,500 feet?	B
<b>OPCION A:</b> 44 NAM, 117 pounds. <b>OPCION B:</b> 48 NAM, 112 pounds. <b>OPCION C:</b> 56 NAM, 125 pounds.		
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8501	Figure 26 What are the time and distance to descend from 16,500 feet to 3,500 feet?	C
<b>OPCION A:</b> 9.3 minutes, 37 NAM. <b>OPCION B:</b> 9.1 minutes, 35 NAM. <b>OPCION C:</b> 8.7 minutes, 33 NAM.		
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8502	Figure 26 What are the distance and fuel consumption to descend from 13,500 feet to 1,500 feet?	B
<b>OPCION A:</b> 30 NAM, 87 pounds. <b>OPCION B:</b> 29 NAM, 80 pounds. <b>OPCION C:</b> 38 NAM, 100 pounds.		
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8503	Figure 26 What are the time and distance to descend from 23,000 feet to 600 feet with an average 15-knot headwind?	C
<b>OPCION A:</b> 14.2 minutes, 50 NAM. <b>OPCION B:</b> 14.6 minutes, 56 NAM. <b>OPCION C:</b> 14.9 minutes, 59 NAM.		

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8504	Figure 27 and 28 What is the landing distance over a 50-foot obstacle for Operating Conditions B-36?	A
<b>OPCION A:</b>	1,900 feet.	
<b>OPCION B:</b>	1,625 feet.	
<b>OPCION C:</b>	950 feet.	

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8505	Figure 27/28 What are the approach speed and ground roll when landing under Operating Conditions B-36?	A
<b>OPCION A:</b>	113 knots and 950 feet.	
<b>OPCION B:</b>	113 knots and 1,950 feet.	
<b>OPCION C:</b>	112 knots and 900 feet.	

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8506	Figure 27/28 What is the remaining runway length when stopped after landing over a 50-foot obstacle for Operating Conditions B-37?	B
<b>OPCION A:</b>	2,500 feet.	
<b>OPCION B:</b>	2,000 feet.	
<b>OPCION C:</b>	2,600 feet.	

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8507	Figure 27 and 28 What are the approach speed and ground roll when landing under Operating Conditions B-37?	A
<b>OPCION A:</b>	108 knots and 1,400 feet.	
<b>OPCION B:</b>	109 knots and 900 feet.	
<b>OPCION C:</b>	107 knots and 1,350 feet.	

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8508	Figures 27 and 28 What is the landing distance over a 50-foot obstacle for Operating Conditions B-38?	B
<b>OPCION A:</b>	1,850 feet.	
<b>OPCION B:</b>	1,700 feet.	
<b>OPCION C:</b>	1,800 feet.	

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8509	Figures 27 and 28 What is the total runway used when touchdown is at the 1,000 foot marker for Operating Conditions B-38?	C
<b>OPCION A:</b>	2,000 feet.	
<b>OPCION B:</b>	1,700 feet.	
<b>OPCION C:</b>	1,800 feet.	

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8510	What is the remaining runway length when stopped after landing over a 50-foot obstacle for Operating Conditions B-39?	C
<b>OPCION A:</b>	2,300 feet.	
<b>OPCION B:</b>	2,400 feet.	
<b>OPCION C:</b>	2,500 feet.	

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8511	Figure 27 and 28 What are the approach speed and ground roll when landing under Operating Conditions B-39?	B
<b>OPCION A:</b>	111 knots and 1,550 feet.	
<b>OPCION B:</b>	110 knots and 1,400 feet.	
<b>OPCION C:</b>	109 knots and 1,300 feet.	

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8512	Figure 27 and 28 What is the landing distance over a 50-foot obstacle for Operating Conditions B-40?	C
<b>OPCION A:</b>	1,500 feet.	
<b>OPCION B:</b>	1,750 feet.	
<b>OPCION C:</b>	1,650 feet.	

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8553 Figure 40 B  
What is the climb performance with both engines operating?

Pressure altitude ..... 9,500 ft  
Temperature (OAT) ..... -5°C  
Heater ..... ON

- OPCION A:** 925 ft/min.  
**OPCION B:** 600 ft/min.  
**OPCION C:** 335 ft/min.
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8554 Figure 40 B  
What is the climb performance with both engines operating?

Pressure altitude ..... 7,500 ft  
Temperature (OAT) ..... +5°C  
Heater ..... ON

- OPCION A:** 905 ft/min.  
**OPCION B:** 765 ft/min.  
**OPCION C:** 1,080 ft/min.
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8555 Figure 40 B  
What is the climb performance with both engines operating?

Pressure altitude ..... 6,500 ft  
Temperature (OAT) ..... +25°C  
Heater ..... OFF

- OPCION A:** 285 ft/min.  
**OPCION B:** 600 ft/min.  
**OPCION C:** 400 ft/min.
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8556 Figure 40 B  
What is the climb performance with both engines operating?

Pressure altitude ..... 11,500 ft  
Temperature (OAT) ..... -15°C  
Heater ..... ON

- OPCION A:** 645 ft/min.  
**OPCION B:** 375 ft/min.  
**OPCION C:** 330 ft/min.
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8557 What is the climb performance with both engines operating? A

Pressure altitude ..... 3,500 ft  
Temperature (OAT) ..... -10°C  
Heater ..... ON

- OPCION A:** 985 ft/min.  
**OPCION B:** 1,300 ft/min.  
**OPCION C:** 1,360 ft/min.
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8558 Figure 41 A  
What is the single-engine climb or descent performance?

Pressure altitude ..... 7,500 ft  
Temperature (OAT) ..... 0°C

- OPCION A:** 80 ft/min descent.  
**OPCION B:** 10 ft/min climb.  
**OPCION C:** 50 ft ft/min climb.
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8559 Figure 41 C  
Given the following, what is the single-engine climb or descent performance?

Pressure altitude ..... 3,000 ft  
Temperature (OAT) ..... +35°C

**OPCION A:** 150 ft/min descent.  
**OPCION B:** 350 ft/min climb.  
**OPCION C:** 100 ft/min descent.

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8560 Figure 41 B  
Given the following, what is the single-engine climb or descent performance?

Pressure altitude ..... 4,700 ft  
Temperature (OAT) ..... +20°C

**OPCION A:** 420 ft/min climb.  
**OPCION B:** 60 ft/min climb.  
**OPCION C:** 60 ft/min descent.

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8561 Figure 41 C  
Given the following, what is the single-engine climb or descent performance?

Pressure altitude ..... 9,500 ft  
Temperature (OAT) ..... -10°C

**OPCION A:** 600 ft/min descent.  
**OPCION B:** 840 ft/min descent.  
**OPCION C:** 280 ft/min descent.

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8562 Figure 41 A  
Given the following, what is the single-engine climb or descent performance?

Pressure altitude ..... 1,500 ft  
Temperature (OAT) ..... +45°C

**OPCION A:** 100 ft/min descent.  
**OPCION B:** 360 ft/min climb.  
**OPCION C:** 200 ft/min descent.

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8563 Figure 42 A  
Given the following, what is the airspeed limit (Vne)?

Gross weight ..... 16,500 lb  
Pressure altitude ..... 5,000 ft  
Temperature (OAT) ..... -15°C

**OPCION A:** 128 KIAS.  
**OPCION B:** 133 KIAS.  
**OPCION C:** 126 KIAS.

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8564 Figure 42 B  
What is the airspeed limit (Vne)?

Gross weight ..... 17,500 lb  
Pressure altitude ..... 4,000 ft  
Temperature (OAT) ..... +10°C

**OPCION A:** 114 KIAS.  
**OPCION B:** 120 KIAS.  
**OPCION C:** 130 KIAS.

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8565 Figure 42 A  
What is the airspeed limit (Vne)?

Gross weight ..... 15,000 lb  
Pressure altitude ..... 6,000 ft  
Temperature (OAT) ..... 0°C

**OPCION A:** 135 KIAS.  
**OPCION B:** 127 KIAS.  
**OPCION C:** 143 KIAS.

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8566 Figure 42 A  
What is the airspeed limit (Vne)?

Gross weight ..... 14,000 lb  
Pressure altitude ..... 8,000 ft  
Temperature (OAT) ..... -15°C

**OPCION A:** 121 KIAS.  
**OPCION B:** 123 KIAS.  
**OPCION C:** 113 KIAS.

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8567 Figure 42 C  
What is the airspeed limit (Vne)?

Gross weight ..... 12,500 lb  
Pressure altitude ..... 14,000 ft  
Temperature (OAT) ..... -20°C

**OPCION A:** 99 KIAS.  
**OPCION B:** 108 KIAS.  
**OPCION C:** 103 KIAS.

---

8568 Figure 43 C  
What is the single-engine landing distance over a 50-foot obstacle?

Gross weight ..... 12,000 lb  
Pressure altitude ..... 3,500 ft  
Temperature (OAT) ..... +30°C

**OPCION A:** 850 feet.  
**OPCION B:** 900 feet.  
**OPCION C:** 1,000 feet.

---

8569 Figure 43 B  
What is the single-engine landing distance over a 50-foot obstacle?

Gross weight ..... 16,500 lb  
Pressure altitude ..... 5,500 ft  
Temperature (OAT) ..... -10°C

**OPCION A:** 1,700 feet.  
**OPCION B:** 1,550 feet.  
**OPCION C:** 1,600 feet.

---

8570 Figure 43 A  
What is the single-engine landing distance over a 50-foot obstacle?

Gross weight ..... 15,000 lb  
Pressure altitude ..... 8,000 ft  
Temperature (OAT) ..... +20°C

**OPCION A:** 1,900 feet.  
**OPCION B:** 1,800 feet.  
**OPCION C:** 2,000 feet.

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8571 Figure 43 B  
What is the single-engine landing distance over a 50-foot obstacle?

Gross weight ..... 14,000 lb  
Pressure altitude ..... 1,000 ft  
Temperature (OAT) ..... +10°C

**OPCION A:** 650 feet.  
**OPCION B:** 920 feet.  
**OPCION C:** 800 feet.

---

8572 Figure 43 C  
What is the single-engine landing distance over a 50-foot obstacle?

Gross weight ..... 17,000 lb  
Pressure altitude ..... 4,000 ft  
Temperature (OAT) ..... +40°C

**OPCION A:** 1,850 feet.  
**OPCION B:** 2,200 feet.  
**OPCION C:** 2,000 feet.

---

8583 Figures 45,46,47 A  
What are V1 and Vr speeds for Operating Conditions A-1?

**OPCION A:** V1 123.1 knots; Vr 125.2 knots.  
**OPCION B:** V1 120.5 knots; Vr 123.5 knots.  
**OPCION C:** V1 122.3 knots; Vr 124.1 knots.

---

8584 Figures 45,46,47 C  
What are V1 and Vr speeds for Operating Conditions A-2?

**OPCION A:** V1 129.7 knots; Vr 134.0 knots.  
**OPCION B:** V1 127.2 knots; Vr 133.2 knots.  
**OPCION C:** V1 127.4 knots; Vr 133.6 knots.

---

8585 Figures 45, 46, and 47 A  
What are V1 and Vr speeds for Operating Conditions A-3?

**OPCION A:** V1 136.8 knots; 141.8 knots.  
**OPCION B:** V1 134.8 knots; 139.0 knots.  
**OPCION C:** V1 133.5 knots; 141.0 knots.

---

8586 Figures 45, 46, and 47 B  
What are V1 and Vr speeds for Operating Conditions A-4?

**OPCION A:** V1 128.0 knots; Vr 130.5 knots.  
**OPCION B:** V1 129.9 knots; Vr 133.4 knots.  
**OPCION C:** V1 128.6 knots; Vr 131.1 knots.

---

8587 Figures 45, 46, and 47 B  
What are V1 and Vr speeds for Operating Conditions A-5?

**OPCION A:** V1 110.4 knots; Vr 110.9 knots.  
**OPCION B:** V1 109.6 knots; Vr 112.7 knots.  
**OPCION C:** V1 106.4 knots; Vr 106.4 knots.

---

8593 Figures 48, 49, and 50 A  
What is the ground distance covered during en route climb for Operating Conditions W-1?

**OPCION A:** 104.0 NM.  
**OPCION B:** 99.2 NM.  
**OPCION C:** 109.7 NM.

---

8594 Figures 48, 49, and 50 C  
What is the ground distance covered during en route climb for Operating Conditions W-2?

**OPCION A:** 85.8 NM.  
**OPCION B:** 87.8 NM.  
**OPCION C:** 79.4 NM.

---

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8595      Figures 48, 49, and 50      A  
What is the ground distance covered during en route climb for Operating Conditions W-3?

**OPCION A:** 86.4 NM.  
**OPCION B:** 84.2 NM.  
**OPCION C:** 85.1 NM.

---

8596      Figures 48, 49, and 50      B  
What is the ground distance covered during en route climb for Operating Conditions W-4?

**OPCION A:** 58.4 NM.  
**OPCION B:** 61.4 NM.  
**OPCION C:** 60.3 NM.

---

8597      Figures 48, 49, and 50      C  
What is the ground distance covered during en route climb for Operating Conditions W-5?

**OPCION A:** 68.0 NM.  
**OPCION B:** 73.9 NM.  
**OPCION C:** 66.4 NM.

---

8598      Figures 48, 49, and 50      B  
What is the aircraft weight at the top of climb for Operating Conditions W-1?

**OPCION A:** 81,600 pounds.  
**OPCION B:** 81,400 pounds.  
**OPCION C:** 81,550 pounds.

---

8599      Figures 48, 49, and 50      C  
What is the aircraft weight at the top of climb for Operating Conditions W-2?

**OPCION A:** 82,775 pounds.  
**OPCION B:** 83,650 pounds.  
**OPCION C:** 83,800 pounds.

---

8600      Figures 48, 49, and 50      B  
What is the aircraft weight at the top of climb for Operating Conditions W-3?

**OPCION A:** 75,750 pounds.  
**OPCION B:** 75,900 pounds.  
**OPCION C:** 76,100 pounds.

---

8601      Figures 48, 49, and 50      B  
What is the aircraft weight at the top of climb for Operating Conditions W-4?

**OPCION A:** 86,150 pounds.  
**OPCION B:** 86,260 pounds.  
**OPCION C:** 86,450 pounds.

---

8602      Figures 48, 49, and 50      A  
What is the aircraft weight at the top of climb for Operating Conditions W-5?

**OPCION A:** 89,900 pounds.  
**OPCION B:** 90,000 pounds.  
**OPCION C:** 90,100 pounds.

---

8603      Figures 51, 52      B  
What is the total time from starting to the alternate through completing the approach for Operating Conditions L-1?

**OPCION A:** 30 minutes.  
**OPCION B:** 44 minutes.  
**OPCION C:** 29 minutes.

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8604	Figures 51,52 What is the total time from starting to the alternate through completing the approach for Operating Conditions L-2?	B
<b>OPCION A:</b> 36 minutes. <b>OPCION B:</b> 55 minutes. <b>OPCION C:</b> 40 minutes.		
<hr/>		
8605	Figures 51,52 What is the total time from starting to the alternate through completing the approach for Operating Conditions L-3?	B
<b>OPCION A:</b> 1 hour. <b>OPCION B:</b> 1 hour 15 minutes. <b>OPCION C:</b> 1 hour 24 minutes.		
<hr/>		
8606	Figures 51,52 What is the total time from starting to the alternate through completing the approach for Operating Conditions L-4?	A
<b>OPCION A:</b> 35 minutes. <b>OPCION B:</b> 19 minutes. <b>OPCION C:</b> 20 minutes.		
<hr/>		
8607	Figures 51,52 What is the total time from starting to the alternate through completing the approach for Operating Conditions L-5?	A
<b>OPCION A:</b> 1 hour 3 minutes. <b>OPCION B:</b> 48 minutes. <b>OPCION C:</b> 55 minutes.		
<hr/>		
8608	Figures 51, 52 What is the approximate landing weight for Operating Conditions L-1?	C
<b>OPCION A:</b> 79,000 pounds. <b>OPCION B:</b> 83,600 pounds. <b>OPCION C:</b> 81,500 pounds.		
<hr/>		
8609	What is the approximate landing weight for Operating Conditions L-2?	B
<b>OPCION A:</b> 65,200 pounds. <b>OPCION B:</b> 65,800 pounds. <b>OPCION C:</b> 69,600 pounds.		
<hr/>		
8610	What is the approximate landing weight for Operating Conditions L-3?	A
<b>OPCION A:</b> 80,300 pounds. <b>OPCION B:</b> 85,400 pounds. <b>OPCION C:</b> 77,700 pounds.		
<hr/>		
8611	Figure 51 and 52 What is the approximate landing weight for Operating Conditions L-4?	A
<b>OPCION A:</b> 73,200 pounds. <b>OPCION B:</b> 74,190 pounds. <b>OPCION C:</b> 73,500 pounds.		
<hr/>		
8612	Figure 51 and 52 What is the approximate landing weight for Operating Conditions L-5?	B
<b>OPCION A:</b> 78,600 pounds. <b>OPCION B:</b> 77,000 pounds. <b>OPCION C:</b> 76,300 pounds.		

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8613 Figures 53, 54, and 55 C  
What is the takeoff EPR for Operating Conditions R-1?

**OPCION A:** 2.04.  
**OPCION B:** 2.01.  
**OPCION C:** 2.035.

---

8614 Figures 53, 54, and 55 A  
What is the takeoff EPR for Operating Conditions R-2?

**OPCION A:** 2.19.  
**OPCION B:** 2.18.  
**OPCION C:** 2.16.

---

8615 Figures 53, 54, and 55 C  
What is the takeoff EPR for Operating Conditions R-3?

**OPCION A:** 2.01.  
**OPCION B:** 2.083.  
**OPCION C:** 2.04.

---

8616 Figures 53, 54, and 55 B  
What is the takeoff EPR for Operating Conditions R-4?

**OPCION A:** 2.06.  
**OPCION B:** 2.105.  
**OPCION C:** 2.11.

---

8617 Figures 53, 54, and 55 A  
What is the takeoff EPR for Operating Conditions R-5?

**OPCION A:** 1.98.  
**OPCION B:** 1.95.  
**OPCION C:** 1.96.

---

8618 Figures 53, 54, and 55 A  
What is the takeoff safety speed for Operating Conditions R-1?

**OPCION A:** 128 knots.  
**OPCION B:** 121 knots.  
**OPCION C:** 133 knots.

---

8619 Figures 53, 54, and 55 C  
What is the rotation speed for Operating Conditions R-2?

**OPCION A:** 147 knots.  
**OPCION B:** 152 knots.  
**OPCION C:** 146 knots.

---

8620 Figures 53, 54, and 55 B  
What are V1, Vr, and V2 speeds for Operating Conditions R-3?

**OPCION A:** 143, 143, and 147 knots.  
**OPCION B:** 138, 138, and 142 knots.  
**OPCION C:** 136, 138, and 143 knots.

---

8621 Figures 53,54,55 B  
What are critical engine failure and takeoff safety speeds for Operating Conditions R-4?

**OPCION A:** 131 and 133 knots.  
**OPCION B:** 123 and 134 knots.  
**OPCION C:** 122 and 130 knots.

---

8622 Figures 53, 54, and 55 A  
What are rotation and V2 bug speeds for Operating Conditions R-5?

**OPCION A:** 138 and 143 knots.  
**OPCION B:** 136 and 138 knots.  
**OPCION C:** 134 and 141 knots.

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8628	Figures 56, 57, and 58 What is the ground distance covered during en route climb for Operating Conditions V-1?	A
<b>OPCION A:</b>	145 NM.	
<b>OPCION B:</b>	137 NM.	
<b>OPCION C:</b>	134 NM.	

---

8629	Figures 56, 57, and 58 What is the ground distance covered during en route climb for Operating Conditions V-2?	C
<b>OPCION A:</b>	84 NM.	
<b>OPCION B:</b>	65 NM.	
<b>OPCION C:</b>	69 NM.	

---

8630	Figures 56, 57, and 58 What is the ground distance covered during en route climb for Operating Conditions V-3?	B
<b>OPCION A:</b>	95 NM.	
<b>OPCION B:</b>	79 NM.	
<b>OPCION C:</b>	57 NM.	

---

8631	Figures 56, 57, and 58 What is the ground distance covered during en route climb for Operating Conditions V-4?	A
<b>OPCION A:</b>	63 NM.	
<b>OPCION B:</b>	53 NM.	
<b>OPCION C:</b>	65 NM.	

---

8632	Figures 56, 57, and 58 What is the ground distance covered during en route climb for Operating Conditions V-5?	C
<b>OPCION A:</b>	70 NM.	
<b>OPCION B:</b>	47 NM.	
<b>OPCION C:</b>	61 NM.	

---

8633	Figures 56, 57, and 58 How much fuel is burned during en route climb for Operating Conditions V-1?	C
<b>OPCION A:</b>	4,100 pounds.	
<b>OPCION B:</b>	3,600 pounds.	
<b>OPCION C:</b>	4,000 pounds.	

---

8634	Figures 56, 57, and 58 How much fuel is burned during en route climb for Operating Conditions V-2?	A
<b>OPCION A:</b>	2,250 pounds.	
<b>OPCION B:</b>	2,600 pounds.	
<b>OPCION C:</b>	2,400 pounds.	

---

8635	Figures 56, 57, and 58 What is the aircraft weight at the top of climb for Operating Conditions V-3?	B
<b>OPCION A:</b>	82,100 pounds.	
<b>OPCION B:</b>	82,500 pounds.	
<b>OPCION C:</b>	82,200 pounds.	

---

8636	Figures 56, 57, and 58 What is the aircraft weight at the top of climb for Operating Conditions V-4?	A
<b>OPCION A:</b>	102,900 pounds.	
<b>OPCION B:</b>	102,600 pounds.	
<b>OPCION C:</b>	103,100 pounds.	

---

8637	Figures 56, 57, and 58 What is the aircraft weight at the top of climb for Operating Conditions V-5?	A
<b>OPCION A:</b>	73,000 pounds.	
<b>OPCION B:</b>	72,900 pounds.	
<b>OPCION C:</b>	72,800 pounds.	

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8638	Figures 59 and 60 What is the maximum climb EPR for Operating Conditions T-1?	A
<b>OPCION A:</b> 1.82. <b>OPCION B:</b> 1.96. <b>OPCION C:</b> 2.04.		
<hr/>		
8639	Figures 59 and 60 What is the maximum climb EPR for Operating Conditions T-2?	C
<b>OPCION A:</b> 2.10. <b>OPCION B:</b> 1.99. <b>OPCION C:</b> 2.02.		
<hr/>		
8640	Figures 59 and 60 What is the maximum climb EPR for Operating Conditions T-3?	C
<b>OPCION A:</b> 2.11. <b>OPCION B:</b> 2.02. <b>OPCION C:</b> 1.90.		
<hr/>		
8641	Figures 59 and 60 What is the maximum climb EPR for Operating Conditions T-4?	C
<b>OPCION A:</b> 2.20. <b>OPCION B:</b> 2.07. <b>OPCION C:</b> 2.06.		
<hr/>		
8642	Figures 59 and 60 What is the maximum climb EPR for Operating Conditions T-5?	B
<b>OPCION A:</b> 2.00. <b>OPCION B:</b> 2.04. <b>OPCION C:</b> 1.96.		
<hr/>		
8643	Figures 61 and 62 What is the trip time for Operating Conditions X-1?	C
<b>OPCION A:</b> 4 hours 5 minutes. <b>OPCION B:</b> 4 hours 15 minutes. <b>OPCION C:</b> 4 hours.		
<hr/>		
8644	Figures 61 and 62 What is the trip time for Operating Conditions X-2?	B
<b>OPCION A:</b> 5 hours 5 minutes. <b>OPCION B:</b> 6 hours 15 minutes. <b>OPCION C:</b> 5 hours 55 minutes.		
<hr/>		
8645	Figures 61 and 62 What is the trip time for Operating Conditions X-3?	C
<b>OPCION A:</b> 4 hours 15 minutes. <b>OPCION B:</b> 3 hours 40 minutes. <b>OPCION C:</b> 4 hours.		
<hr/>		
8646	Figures 61 and 62 What is the trip time for Operating Conditions X-4?	B
<b>OPCION A:</b> 6 hours 50 minutes. <b>OPCION B:</b> 5 hours 45 minutes. <b>OPCION C:</b> 5 hours 30 minutes.		
<hr/>		
8647	Figures 61 and 62 What is the trip time for Operating Conditions X-5?	A
<b>OPCION A:</b> 2 hours 55 minutes. <b>OPCION B:</b> 3 hours 10 minutes. <b>OPCION C:</b> 2 hours 50 minutes.		

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8648	Figures 61 and 62 What is the trip fuel for Operating Conditions X-1?	B
<b>OPCION A:</b> 25,000 pounds. <b>OPCION B:</b> 26,000 pounds. <b>OPCION C:</b> 24,000 pounds.		
<hr/>		
8649	Figures 61 and 62 What is the trip fuel for Operating Conditions X-2?	C
<b>OPCION A:</b> 33,000 pounds. <b>OPCION B:</b> 28,000 pounds. <b>OPCION C:</b> 35,000 pounds.		
<hr/>		
8650	Figures 61 and 62 What is the trip fuel for Operating Conditions X-3?	B
<b>OPCION A:</b> 36,000 pounds. <b>OPCION B:</b> 34,500 pounds. <b>OPCION C:</b> 33,000 pounds.		
<hr/>		
8651	Figures 61 and 62 What is the trip fuel for Operating Conditions X-4?	A
<b>OPCION A:</b> 33,000 pounds. <b>OPCION B:</b> 31,500 pounds. <b>OPCION C:</b> 34,000 pounds.		
<hr/>		
8652	Figures 61 and 62 What is the trip fuel for Operating Conditions X-5?	C
<b>OPCION A:</b> 15,000 pounds. <b>OPCION B:</b> 20,000 pounds. <b>OPCION C:</b> 19,000 pounds.		
<hr/>		
8653	Figures 63 and 64 What is the turbulent air penetration N1 power setting for Operating Conditions Q-1?	C
<b>OPCION A:</b> 82.4 percent? <b>OPCION B:</b> 84.0 percent. <b>OPCION C:</b> 84.8 percent.		
<hr/>		
8654	Figures 63 and 64 What is the turbulent air penetration N1 power setting for Operating Conditions Q-2?	B
<b>OPCION A:</b> 78.2 percent. <b>OPCION B:</b> 75.2 percent. <b>OPCION C:</b> 76.7 percent.		
<hr/>		
8655	Figures 63 and 64 What is the turbulent air penetration N1 power setting for Operating Conditions Q-3?	C
<b>OPCION A:</b> 77.8 percent. <b>OPCION B:</b> 82.6 percent. <b>OPCION C:</b> 84.2 percent.		
<hr/>		
8656	Figures 63 and 64 What is the turbulent air penetration N1 power setting for Operating Conditions Q-4?	A
<b>OPCION A:</b> 76.8 percent. <b>OPCION B:</b> 75.4 percent. <b>OPCION C:</b> 74.0 percent.		
<hr/>		
8657	Figures 63 and 64 What is the turbulent air penetration N1 power setting for Operating Conditions Q-5?	A
<b>OPCION A:</b> 70.9 percent. <b>OPCION B:</b> 72.9 percent. <b>OPCION C:</b> 71.6 percent.		

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8658 Figures 66,67 B  
What is the trip time corrected for wind under Operating Conditions Z-1?

**OPCION A:** 58.1 minutes.  
**OPCION B:** 51.9 minutes.  
**OPCION C:** 54.7 minutes.

---

8659 Figures 66,67 C  
What is the trip time corrected for wind under Operating Conditions Z-2?

**OPCION A:** 1 hour 35 minutes.  
**OPCION B:** 1 hour 52 minutes.  
**OPCION C:** 1 hour 46 minutes.

---

8660 Figure 66,67 B  
What is the trip time corrected for wind under Operating Conditions Z-3?

**OPCION A:** 2 hours 9 minutes.  
**OPCION B:** 1 hour 59 minutes.  
**OPCION C:** 1 hour 52 minutes.

---

8661 Figure 66, 67 B  
What is the trip time corrected for wind under Operating Conditions Z-4?

**OPCION A:** 48.3 minutes.  
**OPCION B:** 50.7 minutes.  
**OPCION C:** 51.3 minutes.

---

8662 Figure 66,67 A  
What is the trip time corrected for wind under Operating Conditions Z-5?

**OPCION A:** 1 hour 11 minutes.  
**OPCION B:** 56 minutes.  
**OPCION C:** 62 minutes.

---

8663 Figure 66,67 A  
What is the estimated fuel consumption for Operating Conditions Z-1?

**OPCION A:** 5,230 pounds.  
**OPCION B:** 5,970 pounds.  
**OPCION C:** 5,550 pounds.

---

8664 Figure 66,67 A  
What is the estimated fuel consumption for Operating Conditions Z-2?

**OPCION A:** 10,270 pounds.  
**OPCION B:** 9,660 pounds.  
**OPCION C:** 10,165 pounds.

---

8665 Figure 66,67 B  
What is the estimated fuel consumption for Operating Conditions Z-3?

**OPCION A:** 12,300 pounds.  
**OPCION B:** 11,300 pounds.  
**OPCION C:** 13,900 pounds.

---

8666 Figure 66,67 C  
What is the estimated fuel consumption for Operating Conditions Z-4?

**OPCION A:** 4,950 pounds.  
**OPCION B:** 5,380 pounds.  
**OPCION C:** 5,230 pounds.

---

8667 Figure 66,67 C  
What is the estimated fuel consumption for Operating Conditions Z-5?

**OPCION A:** 6,250 pounds.  
**OPCION B:** 5,380 pounds.  
**OPCION C:** 7,120 pounds.

---

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8668 Figure 68,69 C  
What are the recommended IAS and EPR settings for holding under Operating Conditions O-1?

**OPCION A:** 221 knots and 1.83 EPR.  
**OPCION B:** 223 knots and 2.01 EPR.  
**OPCION C:** 217 knots and 1.81 EPR.

---

8669 Figure 68,69 B  
What are the recommended IAS and EPR settings for holding under Operating Conditions O-2?

**OPCION A:** 210 knots and 1.57 EPR.  
**OPCION B:** 210 knots and 1.515 EPR.  
**OPCION C:** 210 knots and 1.45 EPR.

---

8670 Figure 68,69 B  
What are the recommended IAS and EPR settings for holding under Operating Conditions O-3?

**OPCION A:** 217 knots and 1.50 EPR.  
**OPCION B:** 215 knots and 1.44 EPR.  
**OPCION C:** 216 knots and 1.40 EPR.

---

8671 Figure 68,69 A  
What are the recommended IAS and EPR settings for holding under Operating Conditions O-4?

**OPCION A:** 223 knots and 1.33 EPR.  
**OPCION B:** 225 knots and 1.33 EPR.  
**OPCION C:** 220 knots and 1.28 EPR.

---

8672 Figure 68,69 C  
What are the recommended IAS and EPR settings for holding under Operating Conditions O-5?

**OPCION A:** 219 knots and 1.28 EPR.  
**OPCION B:** 214 knots and 1.26 EPR.  
**OPCION C:** 218 knots and 1.27 EPR.

---

8673 Figures 68, 69 A  
What is the approximate fuel consumed when holding under Operating Conditions O-1?

**OPCION A:** 1,625 pounds.  
**OPCION B:** 1,950 pounds.  
**OPCION C:** 2,440 pounds.

---

8674 Figures 68,69 C  
What is the approximate fuel consumed when holding under Operating Conditions O-2?

**OPCION A:** 2,250 pounds.  
**OPCION B:** 2,500 pounds.  
**OPCION C:** 3,000 pounds.

---

8675 Figures 68,69 A  
What is the approximate fuel consumed when holding under Operating Conditions O-3?

**OPCION A:** 2,940 pounds.  
**OPCION B:** 2,520 pounds.  
**OPCION C:** 3,250 pounds.

---

8676 Figures 68,69 C  
What is the approximate fuel consumed when holding under Operating Conditions O-4?

**OPCION A:** 2,870 pounds.  
**OPCION B:** 2,230 pounds.  
**OPCION C:** 1,440 pounds.

---

8677 Figures 68,69 C  
What is the approximate fuel consumed when holding under Operating Conditions O-5?

**OPCION A:** 2,950 pounds.  
**OPCION B:** 2,870 pounds.  
**OPCION C:** 2,400 pounds.

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8678 Figure 70 B  
How many minutes of dump time is required to reach a weight of 144,500 pounds?  
  
Initial weight ..... 180,500 lb  
Zero fuel weight ..... 125,500 lb  
**OPCION A:** 13 minutes.  
**OPCION B:** 15 minutes.  
**OPCION C:** 16 minutes.

---

8679 Figure 70 C  
How many minutes of dump time is required to reduce fuel load to 25,000 pounds?  
  
Initial weight ..... 179,500 lb  
Zero fuel weight ..... 136,500 lb  
**OPCION A:** 10 minutes.  
**OPCION B:** 9 minutes.  
**OPCION C:** 8 minutes.

---

8680 Figure 70 C  
How many minutes of dump time is required to reach a weight of 151,500 pounds?  
  
Initial weight ..... 181,500 lb  
Zero fuel weight ..... 126,000 lb  
**OPCION A:** 15 minutes.  
**OPCION B:** 14 minutes.  
**OPCION C:** 13 minutes.

---

8681 Figure 70 A  
How many minutes of dump time is required to reduce fuel load to 16,000 pounds?  
  
Initial weight ..... 175,500 lb  
Zero fuel weight ..... 138,000 lb  
**OPCION A:** 9 minutes.  
**OPCION B:** 10 minutes.  
**OPCION C:** 8 minutes.

---

8682 Figure 71,72 A  
What is the approximate level-off pressure altitude after drift-down under Operating Conditions D-1?  
**OPCION A:** 19,400 feet.  
**OPCION B:** 18,000 feet.  
**OPCION C:** 20,200 feet.

---

8683 Figures 71,72 B  
What is the approximate level-off pressure altitude after drift-down under Operating Conditions D-2?  
**OPCION A:** 14,700 feet.  
**OPCION B:** 17,500 feet.  
**OPCION C:** 18,300 feet.

---

8684 Figures 71,72 C  
What is the approximate level-off pressure altitude after drift-down under Operating Conditions D-3?  
**OPCION A:** 22,200 feet.  
**OPCION B:** 19,800 feet.  
**OPCION C:** 21,600 feet.

---

8685 Figures 71,72 C  
What is the approximate level-off pressure altitude after drift-down under Operating Conditions D-4?  
**OPCION A:** 27,900 feet.  
**OPCION B:** 22,200 feet.  
**OPCION C:** 24,400 feet.

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8686 Figures 71,72 B  
What is the approximate level-off pressure altitude after drift-down under Operating Conditions D-5?

**OPCION A:** 8,800 feet.  
**OPCION B:** 9,600 feet.  
**OPCION C:** 13,000 feet.

---

8687 Figures 73,75 B  
What is the go-around EPR for Operating Conditions L-1?

**OPCION A:** 2.01 EPR.  
**OPCION B:** 2.03 EPR.  
**OPCION C:** 2.04 EPR.

---

8688 Figures 73,75 C  
What is the go-around EPR for Operating Conditions L-2?

**OPCION A:** 2.115 EPR.  
**OPCION B:** 2.10 EPR.  
**OPCION C:** 2.06 EPR.

---

8689 Figures 73,75 A  
What is the go-around EPR for Operating Conditions L-3?

**OPCION A:** 2.06 EPR.  
**OPCION B:** 2.07 EPR.  
**OPCION C:** 2.09 EPR.

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8690 Figures 73,75 A  
What is the go-around EPR for Operating Conditions L-4?

**OPCION A:** 2.056 EPR.  
**OPCION B:** 2.12 EPR.  
**OPCION C:** 2.096 EPR.

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8691 Figures 73,75 A  
What is the go-around EPR for Operating Conditions L-5?

**OPCION A:** 2.00 EPR.  
**OPCION B:** 2.04 EPR.  
**OPCION C:** 2.05 EPR.

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8692 Figures 73,74,75 A  
What is Vref for Operating Conditions L-1?

**OPCION A:** 143 knots.  
**OPCION B:** 144 knots.  
**OPCION C:** 145 knots.

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8693 Figures 73,74,75 B  
What is the reference speed for Operating Conditions L-2?

**OPCION A:** 140 knots.  
**OPCION B:** 145 knots.  
**OPCION C:** 148 knots.

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8694 Figures 73,74,75 B  
What is Vref +20 for Operating Conditions L-3?

**OPCION A:** 151 knots.  
**OPCION B:** 169 knots.  
**OPCION C:** 149 knots.

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8695 Figures 73,74,75 C  
What is Vref +10 for Operating Conditions L-4?

**OPCION A:** 152 knots.  
**OPCION B:** 138 knots.  
**OPCION C:** 148 knots.

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8696	Figures 73,74,75 What is the maneuvering speed for Operating Conditions L-5?	C
<b>OPCION A:</b> 124 knots. <b>OPCION B:</b> 137 knots. <b>OPCION C:</b> 130 knots.		
<hr/>		
8712	Figures 81, 82, and 83 What is the maximum takeoff EPR for Operating Conditions G-1?	A
<b>OPCION A:</b> Engines 1 and 3, 2.22; engine 2, 2.16. <b>OPCION B:</b> Engines 1 and 3, 2.22; engine 2, 2.21. <b>OPCION C:</b> Engines 1 and 3, 2.15; engine 2, 2.09.		
<hr/>		
8713	Figures 81, 82, and 83 What is the maximum takeoff EPR for Operating Conditions G-2?	C
<b>OPCION A:</b> Engines 1 and 3, 2.15; engine 2, 2.16. <b>OPCION B:</b> Engines 1 and 3, 2.18; engine 2, 2.13. <b>OPCION C:</b> Engines 1 and 3, 2.14; engine 2, 2.11.		
<hr/>		
8714	Figures 81, 82, and 83 What is the maximum takeoff EPR for Operating Conditions G-3?	B
<b>OPCION A:</b> Engines 1 and 3, 2.08; engine 2, 2.05. <b>OPCION B:</b> Engines 1 and 3, 2.14; engine 2, 2.10. <b>OPCION C:</b> Engines 1 and 3, 2.18; engine 2, 2.07.		
<hr/>		
8715	Figures 81, 82, and 83 What is the maximum takeoff EPR for Operating Conditions G-4?	A
<b>OPCION A:</b> Engines 1 and 3, 2.23; engine 2, 2.21. <b>OPCION B:</b> Engines 1 and 3, 2.26; engine 2, 2.25. <b>OPCION C:</b> Engines 1 and 3, 2.24; engine 2, 2.24.		
<hr/>		
8716	Figures 81, 82, and 83 What is the maximum takeoff EPR for Operating Conditions G-5?	C
<b>OPCION A:</b> Engines 1 and 3, 2.27; engine 2, 2.18. <b>OPCION B:</b> Engines 1 and 3, 2.16; engine 2, 2.14. <b>OPCION C:</b> Engines 1 and 3, 2.23; engine 2, 2.22.		
<hr/>		
8717	Figures 81, 82, and 83 What is the takeoff safety speed for Operating Conditions G-1?	B
<b>OPCION A:</b> 122 knots. <b>OPCION B:</b> 137 knots. <b>OPCION C:</b> 133 knots.		
<hr/>		
8718	Figures 81, 82, and 83 What is the rotation speed for Operating Conditions G-2?	C
<b>OPCION A:</b> 150 knots. <b>OPCION B:</b> 154 knots. <b>OPCION C:</b> 155 knots.		
<hr/>		
8719	Figures 81, 82, and 83 What are V1, Vr and V2 speeds for Operating Conditions G-3?	A
<b>OPCION A:</b> 134, 134, and 145 knots. <b>OPCION B:</b> 134, 139, and 145 knots. <b>OPCION C:</b> 132, 132, and 145 knots.		
<hr/>		
8720	Figures 81, 82, and 83 What are V1 and V2 speeds for Operating Conditions G-4?	C
<b>OPCION A:</b> 133 and 145 knots. <b>OPCION B:</b> 127 and 141 knots. <b>OPCION C:</b> 132 and 146 knots.		

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8721 figures 81, 82, and 83 B  
What are rotation and V2 bug speeds for Operating Conditions G-5?  
**OPCION A:** 120 and 134 knots.  
**OPCION B:** 119 and 135 knots.  
**OPCION C:** 135 and 135 knots.

---

8727 Figures 84,85 A  
What are the recommended IAS and EPR settings for holding under Operating Conditions H-1?  
**OPCION A:** 264 knots and 1.80 EPR.  
**OPCION B:** 259 knots and 1.73 EPR.  
**OPCION C:** 261 knots and 1.81 EPR.

---

8728 Figures 84,85 C  
What are the recommended IAS and EPR settings for holding under Operating Conditions H-2?  
**OPCION A:** 257 knots and 1.60 EPR.  
**OPCION B:** 258 knots and 1.66 EPR.  
**OPCION C:** 253 knots and 1.57 EPR.

---

8729 What are the recommended IAS and EPR settings for holding under Operating Conditions H-3? B  
**OPCION A:** 226 knots and 1.30 EPR.  
**OPCION B:** 230 knots and 1.31 EPR.  
**OPCION C:** 234 knots and 1.32 EPR.

---

8730 Figures 84,85 B  
What are the recommended IAS and EPR settings for holding under Operating Conditions H-4?  
**OPCION A:** 219 knots and 1.44 EPR.  
**OPCION B:** 216 knots and 1.42 EPR.  
**OPCION C:** 220 knots and 1.63 EPR.

---

8731 Figures 84,85 C  
What are the recommended IAS and EPR settings for holding under Operating Conditions H-5?  
**OPCION A:** 245 knots andn 1.65 EPR.  
**OPCION B:** 237 knots andn 1.61 EPR.  
**OPCION C:** 249 knots andn 1.67 EPR.

---

8732 Figures 84,85 C  
What is the approximate fuel consumed when holding under Operating Conditions H-1?  
**OPCION A:** 3,500 pounds.  
**OPCION B:** 4,680 pounds.  
**OPCION C:** 2,630 pounds.

---

8733 Figures 84,85 A  
What is the approximate fuel consumed when holding under Operating Conditions H-2?  
**OPCION A:** 5,100 pounds.  
**OPCION B:** 3,400 pounds.  
**OPCION C:** 5,250 pounds.

---

8734 Figures 84,85 B  
What is the approximate fuel consumed when holding under Operating Conditions H-3?  
**OPCION A:** 3,090 pounds.  
**OPCION B:** 6,950 pounds.  
**OPCION C:** 6,680 pounds.

---

8735 Figures 84,85 A  
What is the approximate fuel consumed when holding under Operating Conditions H-4?  
**OPCION A:** 3,190 pounds.  
**OPCION B:** 3,050 pounds.  
**OPCION C:** 2,550 pounds.

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8736 Figures 84,85 C  
What is the approximate fuel consumed when holding under Operating Conditions H-5?

**OPCION A:** 3,170 pounds.  
**OPCION B:** 7,380 pounds.  
**OPCION C:** 5,540 pounds.

---

8737 Figures 86,87 B  
What are descent time and distance under Operating Conditions S-1?

**OPCION A:** 24 minutes, 118 NM.  
**OPCION B:** 26 minutes, 125 NM.  
**OPCION C:** 25 minutes, 118 NM.

---

8738 Figurews 86,87 B  
What are descent fuel and distance under Operating Conditions S-2?

**OPCION A:** 1,440 pounds, 104 NM.  
**OPCION B:** 1,500 pounds, 118 NM.  
**OPCION C:** 1,400 pounds, 98 NM.

---

8739 Figures 86,87 A  
What are descent fuel and distance under Operating Conditions S-3?

**OPCION A:** 1,490 pounds, 118 NM.  
**OPCION B:** 1,440 pounds, 110 NM.  
**OPCION C:** 1,550 pounds, 127 NM.

---

8740 Figures 86,87 B  
What are descent time and distance under Operating Conditions S-4?

**OPCION A:** 22 minutes, 110 NM.  
**OPCION B:** 21 minutes, 113 NM.  
**OPCION C:** 24 minutes, 129 NM.

---

8741 Figures 86,87 A  
What are descent fuel and distance under Operating Conditions S-5?

**OPCION A:** 1,420 pounds, 97 NAM.  
**OPCION B:** 1,440 pounds, 102 NAM.  
**OPCION C:** 1,390 pounds, 92 NAM.

---

8742 Figures 88,89 B  
Which conditions will result in the shortest landing distance at a weight of 132,500 pounds?

**OPCION A:** Dry runway using brakes and reversers.  
**OPCION B:** Dry runway using brakes and spoilers.  
**OPCION C:** Wet runway using brakes, spoilers and reversers.

---

8743 Figure 88 C  
How much longer is the dry runway landing distance using brakes only compared to using brakes and reversers at 114,000 pounds gross weight?

**OPCION A:** 1,150 feet.  
**OPCION B:** 500 feet.  
**OPCION C:** 300 feet.

---

8744 Figure 88 B  
How many feet will remain after landing on a 7,200-foot dry runway with spoilers inoperative at 118,000 pounds gross weight?

**OPCION A:** 4,200 feet.  
**OPCION B:** 4,500 feet.  
**OPCION C:** 4,750 feet.

---

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8745 What is the maximum landing weight which will permit stopping 2,000 feet short of the end of a 5,400-foot dry runway with reversers and spoilers inoperative? B

**OPCION A:** 117,500 pounds.  
**OPCION B:** 136,500 pounds.  
**OPCION C:** 139,500 pounds.

---

8746 Figure 89 C  
Which of the following configurations will result in the shortest landing distance over a 50-foot obstacle to a wet runway?

**OPCION A:** Brakes and spoilers at 122,500 pounds gross weight.  
**OPCION B:** Brakes and reversers at 124,000 pounds gross weight.  
**OPCION C:** Brakes, spoilers, and reversers at 131,000 pounds gross weight.

---

8747 Figure 89 B  
How many feet will remain after landing on a 6,000-foot wet runway with reversers inoperative at 122,000 pounds gross weight?

**OPCION A:** 2,200 feet.  
**OPCION B:** 2,750 feet.  
**OPCION C:** 3,150 feet.

---

8748 Figure 90 C  
Which configuration will result in a landing distance of 5,900 feet over a 50 foot obstacle to an icy runway?

**OPCION A:** Use of three reversers at 131,000 pounds gross weight.  
**OPCION B:** Use of brakes and spoilers at 125,000 pounds gross weight.  
**OPCION C:** Use of three reversers at 133,000 pounds gross weight.

---

8749 Figure 90 A  
What is the transition distance when landing on an icy runway at a gross weight of 134,000 pounds?

**OPCION A:** 400 feet.  
**OPCION B:** 950 feet.  
**OPCION C:** 1,350 feet.

---

8750 Figure 90 B  
What is the maximum landing weight which will permit stopping 700 feet short of the end of a 5,200-foot icy runway?

**OPCION A:** 124,000 pounds.  
**OPCION B:** 137,000 pounds.  
**OPCION C:** 108,000 pounds.

---

8751 Figure 90 C  
What is the landing distance on an icy runway with reversers inoperative at a landing weight of 125,000 pounds?

**OPCION A:** 4,500 feet.  
**OPCION B:** 4,750 feet.  
**OPCION C:** 5,800 feet.

---

8752 Figure 91 B  
How much will landing distance be reduced by using 15° of flaps rather than 0° flaps at a landing weight of 119,000 pounds?

**OPCION A:** 500 feet.  
**OPCION B:** 800 feet.  
**OPCION C:** 2,700 feet.

---

8753 Figure 91 A  
What is the ground roll when landing with 15° of flaps at a landing weight of 122,000 pounds?

**OPCION A:** 1,750 feet.  
**OPCION B:** 2,200 feet.  
**OPCION C:** 2,750 feet.

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8754	Figures 91, 92 What approach speed and ground roll will be needed when landing at a weight of 140,000 pounds if flaps are not used?	C
<b>OPCION A:</b>	138 knots and 3,900 feet.	
<b>OPCION B:</b>	153 knots and 2,900 feet.	
<b>OPCION C:</b>	183 knots and 2,900 feet.	

---

8755	Figure 91 How much more runway will be used to land with 0° flaps rather than 15° of flaps at a landing weight of 126,000 pounds?	A
<b>OPCION A:</b>	900 feet.	
<b>OPCION B:</b>	1,800 feet.	
<b>OPCION C:</b>	2,700 feet.	

---

8756	Figures 91,92 What approach speed and landing distance will be needed when landing at a weight of 140,000 pounds with 15° of flaps?	B
<b>OPCION A:</b>	123 knots and 3,050 feet.	
<b>OPCION B:</b>	138 knots and 3,050 feet.	
<b>OPCION C:</b>	153 knots and 2,050 feet.	

---

8757	Figure 92 What is the maximum charted indicated airspeed while maintaining a 3° glide slope at a weight of 140,000 pounds?	C
<b>OPCION A:</b>	127 knots.	
<b>OPCION B:</b>	149 knots.	
<b>OPCION C:</b>	156 knots.	

---

8758	Figure 92 What is the thrust required to maintain a 3° glide slope at 140,000 pounds, with gear down, flaps 30°, and an airspeed of Vref +30 knots?	B
<b>OPCION A:</b>	13,300 pounds.	
<b>OPCION B:</b>	16,200 pounds.	
<b>OPCION C:</b>	17,700 pounds.	

---

8759	Figure 92 What thrust is required to maintain level flight at 140,000 pounds, with gear up, flaps 25°, and an airspeed of 172 knots?	B
<b>OPCION A:</b>	13,700 pounds.	
<b>OPCION B:</b>	18,600 pounds.	
<b>OPCION C:</b>	22,000 pounds.	

---

8760	Figure 92 What thrust is required to maintain level flight at 140,000 pounds, with gear down, flaps 25°, and an airspeed of 162 knots?	B
<b>OPCION A:</b>	17,400 pounds.	
<b>OPCION B:</b>	19,500 pounds.	
<b>OPCION C:</b>	22,200 pounds.	

---

8761	Figure 92 What thrust is required to maintain level flight at 140,000 pounds, with gear down, flaps 25°, and an airspeed of 145 knots?	B
<b>OPCION A:</b>	16,500 pounds.	
<b>OPCION B:</b>	18,100 pounds.	
<b>OPCION C:</b>	18,500 pounds.	

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8762	Figure 92 What is the change of total drag for a 140,000-pound airplane when configuration is changed from flaps 30°, gear down, to flaps 0°, gear up, at a constant airspeed of 160 knots?	A
<b>OPCION A:</b> 13,500 pounds. <b>OPCION B:</b> 13,300 pounds. <b>OPCION C:</b> 15,300 pounds.		
<hr/>		
8763	Figure 93 What is the maximum charted indicated airspeed while maintaining a 3° glide slope at a weight of 110,000 pounds?	A
<b>OPCION A:</b> 136 knots. <b>OPCION B:</b> 132 knots. <b>OPCION C:</b> 139 knots.		
<hr/>		
8764	Figure 93 What is the thrust required to maintain a 3° glide slope at 110,000 pounds, with gear down, flaps 30°, and an airspeed of $V_{ref} + 20$ knots?	B
<b>OPCION A:</b> 9,800 pounds. <b>OPCION B:</b> 11,200 pounds. <b>OPCION C:</b> 17,000 pounds.		
<hr/>		
8765	Figure 93 What thrust is required to maintain level flight at 110,000 pounds, with gear down, flaps 40°, and an airspeed of 118 knots?	B
<b>OPCION A:</b> 17,000 pounds. <b>OPCION B:</b> 20,800 pounds. <b>OPCION C:</b> 22,300 pounds.		
<hr/>		
8766	Figure 93 What thrust is required to maintain level flight at 110,000 pounds, with gear up, flaps 25°, and an airspeed of 152 knots?	A
<b>OPCION A:</b> 14,500 pounds. <b>OPCION B:</b> 15,900 pounds. <b>OPCION C:</b> 16,700 pounds.		
<hr/>		
8774	The maximum speed during takeoff that the pilot may abort the takeoff and stop the airplane within the accelerate-stop distance is	C
<b>OPCION A:</b> $V_2$ . <b>OPCION B:</b> $V_{ef}$ . <b>OPCION C:</b> $V_1$ .		
<hr/>		
8775	The minimum speed during takeoff, following a failure of the critical engine at $V_{ef}$ , at which the pilot may continue the takeoff and achieve the required height above the takeoff surface within the takeoff distance is indicated by symbol	B
<b>OPCION A:</b> $V_{2min}$ . <b>OPCION B:</b> $V_1$ . <b>OPCION C:</b> $V_{lof}$ .		
<hr/>		
8780	The symbol for the speed at which the critical engine is assumed to fail during takeoff is	C
<b>OPCION A:</b> $V_2$ . <b>OPCION B:</b> $V_1$ . <b>OPCION C:</b> $V_{ef}$ .		
<hr/>		
8795	Figure 103 What CAS should be used to maintain the fixed TAS at the proposed altitude?	B
<b>OPCION A:</b> 157 knots. <b>OPCION B:</b> 167 knots. <b>OPCION C:</b> 172 knots.		

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8835	Figures 115, 116, and 117.	B
	Due to traffic, LAX Center radar vectored PTL 130 to TRM, then cleared the flight to PHX via J169 BLH, direct to Arlin Intersection. What approximate indicated MAch should be maintained to arrive over the BLH VORTAC 8 minutes after passing TRM VORTAC?	
<b>OPCION A:</b>	.84 Mach.	
<b>OPCION B:</b>	.82 Mach.	
<b>OPCION C:</b>	.86 Mach.	
<hr/>		
8933	A definition of the term "viscous hydroplaning" is where	B
<b>OPCION A:</b>	the airplane rides on standing water.	
<b>OPCION B:</b>	a film of moisture covers the painted or rubber-coated portion of the runway.	
<b>OPCION C:</b>	the tires of the airplane are actually riding on a mixture of steam and melted rubber.	
<hr/>		
8934	Which term describes the hydroplaning which occurs when an airplane's tire is effectively held off a smooth runway surface by steam generated by friction?	A
<b>OPCION A:</b>	Reverted rubber hydroplaning.	
<b>OPCION B:</b>	Dynamic hydroplaning.	
<b>OPCION C:</b>	Viscous hydroplaning.	
<hr/>		
8935	At what minimum speed (rounded off) could dynamic hydroplaning occur on main tires having a pressure of 121 psi?	B
<b>OPCION A:</b>	90 knots.	
<b>OPCION B:</b>	96 knots.	
<b>OPCION C:</b>	110 knots.	
<hr/>		
8936	At what minimum speed will dynamic hydroplaning begin if a tire has an air pressure of 70 psi?	C
<b>OPCION A:</b>	85 knots.	
<b>OPCION B:</b>	80 knots.	
<b>OPCION C:</b>	75 knots.	
<hr/>		
8937	What is the best method of speed reduction if hydroplaning is experienced on landing?	C
<b>OPCION A:</b>	Apply full main wheel braking only.	
<b>OPCION B:</b>	Apply nosewheel and main wheel braking alternately and abruptly.	
<b>OPCION C:</b>	Apply aerodynamic braking to the fullest advantage.	
<hr/>		
8938	Compared to dynamic hydroplaning, at what speed does viscous hydroplaning occur when landing on a smooth, wet runway?	B
<b>OPCION A:</b>	At approximately 2.0 times the speed that dynamic hydroplannin occurs.	
<b>OPCION B:</b>	At a lower speed than dynamic hydroplaning.	
<b>OPCION C:</b>	At the same speed as dynamic hydroplaning.	
<hr/>		
8939	What effect, if any, will landing at a higher-than-recommended touchdown speed have on hydroplaning?	C
<b>OPCION A:</b>	No effect on hydroplaning, but increases landing roll.	
<b>OPCION B:</b>	Reduces hydroplaning potential if heavy braking is applied.	
<b>OPCION C:</b>	Increases hydroplaning potential regardless of braking.	
<hr/>		
9058	Which place in the turbojet engine is subjected to the highest temperature?	C
<b>OPCION A:</b>	Compressor discharge.	
<b>OPCION B:</b>	Fuel spray nozzles.	
<b>OPCION C:</b>	Turbine inlet.	
<hr/>		
9059	What effect would a change in ambient temperature of air density have on gas-turbine-engine performance?	C
<b>OPCION A:</b>	As air density decreases, thrust increases.	
<b>OPCION B:</b>	As temperature increases, thrust increases.	
<b>OPCION C:</b>	As temperature increases, thrust decreases.	

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9060 The most important restriction to the operation of turbojet or turboprop engines is B  
**OPCION A:** limiting compressor speed.  
**OPCION B:** limiting exhaust gas temperature.  
**OPCION C:** limiting torque.

---

9061 An outside air pressure decreases, thrust output will C  
**OPCION A:** increase due to greater efficiency of jet aircraft in thin air.  
**OPCION B:** remain the same since compression of inlet air will compensate for any decrease in air pressure.  
**OPCION C:** decrease due to higher density altitude.

---

9062 What effect will an increase in altitude have upon the available equivalent shaft horsepower (ESHP) of a A  
turboprop engine?  
**OPCION A:** Lower air density and engine mass flow will cause a decrease in power.  
**OPCION B:** Higher propeller efficiency will cause an increase in usable power (ESHP) and thrust.  
**OPCION C:** Power will remain the same but propeller efficiency will decrease.

---

9063 What effect, if any, does high ambient temperature have upon the thrust output of a turbine engine? A  
**OPCION A:** Thrust will be reduced due to the decrease in air density.  
**OPCION B:** Thrust will remain the same, but turbine temperature will be higher.  
**OPCION C:** Thrust will be higher because more heat energy is extracted from the hotter air.

---

9064 What characterizes a transient compressor stall? C  
**OPCION A:** Loud, steady roar accompanied by heavy shuddering.  
**OPCION B:** Sudden loss of thrust accompanied by a loud whine.  
**OPCION C:** Intermittent "bang", as backfires and flow reversals take place.

---

9065 What indicates that a compressor stall has developed and become steady? A  
**OPCION A:** Strong vibrations and loud roar.  
**OPCION B:** Occasional loud "bang" and low reversal.  
**OPCION C:** Completes loss of power with severe reduction in airspeed.

---

9066 Which type of compressor stall has the greatest potential for severe engine damage? C  
**OPCION A:** Intermittent "backfire" stall.  
**OPCION B:** Transient "backfire" stall.  
**OPCION C:** Steady, continuous flow reversal stall.

---

9067 What recovery would be appropriate in the event of compressor stall? A  
**OPCION A:** Reduce fuel flow, reduce angle of attack, and increase airspeed.  
**OPCION B:** Advance throttle, lower angle of attack, and reduce airspeed.  
**OPCION C:** Reduce throttle, reduce airspeed, and increase angle of attack.

---

9068 Under normal operating conditions, which combination of MAP and RPM produce the most severe wear, A  
fatigue, and damage to high performance reciprocating engines?  
**OPCION A:** High RPM and low MAP.  
**OPCION B:** Low RPM and high MAP.  
**OPCION C:** High RPM and high MAP.

---

9069 What effect does high relative humidity have upon the maximum power output of modern aircraft engines? B  
**OPCION A:** Neither turbojet nor reciprocating engines are affected.  
**OPCION B:** Reciprocating engines will experience a significant loss of BHP.  
**OPCION C:** Turbojet engines will experience a significant loss of thrust.

---

9070 Equivalent shaft horsepower (ESHP) of a turbo-prop engine is a measure of B  
**OPCION A:** turbine inlet temperature.  
**OPCION B:** shaft horsepower and jet thrust.  
**OPCION C:** propeller thrust only.

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9071 Minimum specific fuel consumption of the turbo-prop engine is normally available in which altitude range? B  
**OPCION A:** 10,000 feet to 25,000 feet.  
**OPCION B:** 25,000 feet to the tropopause.  
**OPCION C:** The tropopause to 45,000 feet.

---

9072 Where is the critical altitude of a supercharged reciprocating engine? A  
**OPCION A:** The highest altitude at which a desired manifold pressure can be obtained.  
**OPCION B:** Highest altitude where the mixture can be leaned to best power ratio.  
**OPCION C:** The altitude at which maximum allowable BMEP can be obtained.

---

9073 What is controlled by the waste gas of a turbo-charged reciprocating engine? B  
**OPCION A:** Supercharger gear ratio.  
**OPCION B:** Exhaust gas discharge.  
**OPCION C:** Throttle opening.

---

9074 How should thrust reversers be applied to reduce landing distance for turbojet aircraft? A  
**OPCION A:** Immediately after ground contact.  
**OPCION B:** Immediately prior to touchdown.  
**OPCION C:** After applying maximum wheel braking.

---

9075 Which condition reduces the required runway for takeoff? C  
**OPCION A:** Higher-than-recommended airspeed before rotation.  
**OPCION B:** Lower-than-standard air density.  
**OPCION C:** Increased headwind component.

---

9076 Which performance factor decreases as airplane gross weight increases, for a given runway? A  
**OPCION A:** Critical engine failure speed.  
**OPCION B:** Rotation speed.  
**OPCION C:** Accelerate-stop distance.

---

9077 Maximum range performance of a turbojet aircraft is obtained by which procedure as aircraft weight reduces? B  
**OPCION A:** Increasing speed or altitude.  
**OPCION B:** Increasing altitude or decreasing speed.  
**OPCION C:** Increasing speed or decreasing altitude.

---

9078 Which procedure produces the minimum fuel consumption for a given leg of the cruise flight? A  
**OPCION A:** Increase speed for a headwind.  
**OPCION B:** Increase speed for a tailwind.  
**OPCION C:** Increase altitude for a headwind, decrease altitude for a tailwind.

---

9079 How should reverse thrust propellers be used during landing for maximum effectiveness in stopping? B  
**OPCION A:** Gradually increase reverse power to maximum as rollout speed decreases.  
**OPCION B:** Use maximum reverse power as soon as possible after touchdown.  
**OPCION C:** Select reverse-pitch after landing and use idle power setting of the engines.

---

9083 What effect does an uphill runway slope have upon takeoff performance? A  
**OPCION A:** Increases takeoff distance.  
**OPCION B:** Decreases takeoff speed.  
**OPCION C:** Decreases takeoff distance.

---

9084 Under which condition during the landing roll are the main wheel brakes at maximum effectiveness? A  
**OPCION A:** When wing lift has been reduced.  
**OPCION B:** At high groundspeeds.  
**OPCION C:** When the wheels are locked and skidding.

---

9085 Which condition has the effect of reducing critical engine failure speed? A  
**OPCION A:** Slush on the runway or inoperative antiskid.  
**OPCION B:** Low gross weight.  
**OPCION C:** High density altitude.

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9128 What action is appropriate when encountering the first ripple of reported clear air turbulence (CAT)? C  
**OPCION A:** Extend flaps to decrease wing loading.  
**OPCION B:** Extend gear to provide more drag and increase stability.  
**OPCION C:** Adjust airspeed to that recommended for rough air.

---

9129 If severe turbulence is encountered, which procedure is recommended? B  
**OPCION A:** Maintain a constant altitude.  
**OPCION B:** Maintain a constant attitude.  
**OPCION C:** Maintain constant airspeed and altitude.

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9317 Which is the definition of V2 speed? B  
**OPCION A:** Takeoff decision speed.  
**OPCION B:** Takeoff safety speed.  
**OPCION C:** Minimum takeoff speed.

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9319 What is the correct symbol for minimum unstick speed? A  
**OPCION A:** Vmu.  
**OPCION B:** Vmd.  
**OPCION C:** Vfc.

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9320 Which speed symbol indicates the maximum operating limit speed for an airplane? B  
**OPCION A:** Vle.  
**OPCION B:** Vmo/Mmo.  
**OPCION C:** Vlo/Mlo.

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9321 Which is the correct symbol for design cruising speed? A  
**OPCION A:** Vc.  
**OPCION B:** Vs.  
**OPCION C:** Vma.

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9322 Which is the correct symbol for the minimum steady-flight speed or stalling speed in the landing configuration? C  
**OPCION A:** Vs.  
**OPCION B:** Vs1.  
**OPCION C:** Vso.

---

9323 Which is correct symbol for the stalling speed or the minimum steady flight speed at which the airplane is controllable? B  
**OPCION A:** Vso.  
**OPCION B:** Vs.  
**OPCION C:** Vs1.

---

9324 What is the name of a plane beyond the end of a runway which does not contain obstructions and can be considered when calculating takeoff performance of turbine-powered aircraft? A  
**OPCION A:** Clearway.  
**OPCION B:** Stopway.  
**OPCION C:** Obstruction clearance plane.

---

9327 What is an area identified by the term "stopway"? B  
**OPCION A:** An area, at least the same width as the runway, capable of supporting an airplane during a normal takeoff.  
**OPCION B:** An area designated for use in decelerating an aborted takeoff.  
**OPCION C:** An area, not as wide as the runway, capable of supporting an airplane during a normal takeoff.

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9355 Which operational requirement must be observed by a commercial operator when ferrying a large, three-engine, turbojet-powered airplane from one facility to another to repair an inoperative engine? C  
**OPCION A:** The computed takeoff distance to reach V1 must not exceed 70 percent of the effective runway length.  
**OPCION B:** The existing and forecast weather for departure, en route, and approach must be VFR.  
**OPCION C:** No passengers may be carried.

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9358 A commercial operator plans to ferry a large, four-engine, reciprocating-engine-powered airplane from one facility to another to repair an inoperative engine. Which is an operational requirement for the three-engine flight? B

**OPCION A:** The gross weight at takeoff may not exceed 75 percent of the maximum certificated gross weight.

**OPCION B:** Weather conditions at the takeoff and destination airports must be VFR.

**OPCION C:** The computed takeoff distance to reach V1 must not exceed 70 percent of the effective runway length.

---

9359 Which operational requirement must be observed when ferrying an air carrier airplane when one of its three turbine engines is inoperative? A

**OPCION A:** The weather conditions at takeoff and destination must be VFR.

**OPCION B:** The flight cannot be conducted between official sunset and official sunrise.

**OPCION C:** Weather conditions must exceed the basic VFR minimums for the entire route, including takeoff and landing.

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9360 Which operational requirement must be observed when ferrying a large, turbine-engine-powered airplane when one of its engines is inoperative? A

**OPCION A:** The weather conditions at takeoff and destination must be VFR.

**OPCION B:** Weather conditions must exceed the basic VFR minimums for the entire route, including takeoff and landing.

**OPCION C:** The flight cannot be conducted between official sunset and sunrise.

---

9361 When a turbine-engine-powered airplane is to be ferried to another base for repair of an inoperative engine, which operational requirement must be observed? A

**OPCION A:** Only the required flight crewmembers may be on board the airplane.

**OPCION B:** The existing and forecast weather for departure, en route, and approach must be VFR.

**OPCION C:** No passengers except authorized maintenance personnel may be carried.

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9546 Figures 94,95,96  
What is the ETE from Chicago Midway Airport to Greater Buffalo Int'l? A

**OPCION A:** 2 hours 12 minutes.

**OPCION B:** 2 hours 15 minutes.

**OPCION C:** 2 hours 18 minutes.

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9547 Figures 94,95,96  
What are the fuel requirements from Chicago Midway Airport to the Greater Buffalo Int'l? A

**OPCION A:** 2,224 pounds.

**OPCION B:** 1,987 pounds.

**OPCION C:** 1,454 pounds.

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9548 Figures 94,95,96  
What TAS should be maintained to arrive over CRL VORTAC 42 minutes after level-off? C

**OPCION A:** 166 knots.

**OPCION B:** 168 knots.

**OPCION C:** 171 knots.

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9556 Figures 98,100,102  
What is the ETE from DFW Int'l to IAH? B

**OPCION A:** 1 hour 2 minutes.

**OPCION B:** 1 hour 4 minutes.

**OPCION C:** 1 hour 6 minutes.

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9557 Figures 98-100-102  
What is the total fuel required from DFW Int'l to IAH? B

**OPCION A:** 1,555 pounds.

**OPCION B:** 1,863 pounds.

**OPCION C:** 1,941 pounds.

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9558 Figures 98,100,102  
Determine the TAS required to arrive at CUGAR, 31 minutes after level-off? A

**OPCION A:** 269 knots.

**OPCION B:** 264 knots.

**OPCION C:** 258 knots.

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9559	Figures 98,100,102 Determine the TAS required to arrive at CUGAR, 29 minutes after level-off?	A
<b>OPCION A:</b> 285 knots. <b>OPCION B:</b> 290 knots. <b>OPCION C:</b> 295 knots.		
<hr/>		
9560	Figures 103 to 106 Estimate the total fuel required to be on the aircraft, prior to taxi at Tucson Int'l.	B
<b>OPCION A:</b> 2,223 pounds. <b>OPCION B:</b> 2,327 pounds. <b>OPCION C:</b> 2,447 pounds.		
<hr/>		
9561	Figures 103 to 106 Determine the ETE for the flight from Tucson Int'l to Los Angeles Int'l.	B
<b>OPCION A:</b> 2 hours 10 minutes. <b>OPCION B:</b> 2 hours 15 minutes. <b>OPCION C:</b> 2 hours 19 minutes.		
<hr/>		
9578	Figures 107, 115, 116, 117, 118, and 118C What is the ETE at .78 Mach?	A
<b>OPCION A:</b> 1 hour 08 minutes. <b>OPCION B:</b> 1 hour 02 minutes. <b>OPCION C:</b> 1 hour 05 minutes.		
<hr/>		
9579	Figures 115, 116, 117, 118, and 118C What is the total fuel required at .78 Mach?	B
<b>OPCION A:</b> 22,140 pounds. <b>OPCION B:</b> 22,556 pounds. <b>OPCION C:</b> 22,972 pounds.		
<hr/>		
9580	Figures 115, 116, 117, 118, and 118C What is the specific range in nautical miles per 1,000 pounds of fuel from level-off to the ARLIN Intersection using .78 Mach?	B
<b>OPCION A:</b> 46.1 NAM/1,000 pounds. <b>OPCION B:</b> 48.2 NAM/1,000 pounds. <b>OPCION C:</b> 50.0 NAM/1,000 pounds.		
<hr/>		
9581	Figures 115, 116, 117, 118, and 118C What is the ETE at .80 Mach?	C
<b>OPCION A:</b> 1 hour 02 minutes. <b>OPCION B:</b> 1 hour 04 minutes. <b>OPCION C:</b> 1 hour 07 minutes.		
<hr/>		
9582	Figures 115, 116, 117, 118, and 118C What is the total fuel required at .80 Mach?	B
<b>OPCION A:</b> 22,836 pounds. <b>OPCION B:</b> 22,420 pounds. <b>OPCION C:</b> 22,256 pounds.		
<hr/>		
9583	Figures 115, 116, 117, 118, and 118C What approximate indicated Mach should be maintained to arrive over the BZA VORTAC 6 minutes after passing IPL VORTAC?	C
<b>OPCION A:</b> .73 Mach. <b>OPCION B:</b> .74 Mach. <b>OPCION C:</b> .715 Mach.		

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9584	Figures 107, 115, 116, 117, 118, and 118C	B
	What is the ETE at .82 Mach?	
<b>OPCION A:</b>	1 hour 05 minutes.	
<b>OPCION B:</b>	1 hour 07 minutes.	
<b>OPCION C:</b>	1 hour 03 minutes.	

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9585	Figures 115, 116, 117, 118, and 118C	B
	What is the total fuel required at .82 Mach?	
<b>OPCION A:</b>	22,420 pounds.	
<b>OPCION B:</b>	22,284 pounds.	
<b>OPCION C:</b>	22,700 pounds.	

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9591	Figures 119 to 122	C
	What is the ETE from BUF to ORD using .78 Mach?	
<b>OPCION A:</b>	1 hour 09 minutes.	
<b>OPCION B:</b>	1 hour 07 minutes.	
<b>OPCION C:</b>	1 hour 05 minutes.	

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9592	Figures 119 to 122	B
	What is the total fuel required for the flight from BUF to ORD using .78 Mach?	
<b>OPCION A:</b>	19,033 pounds.	
<b>OPCION B:</b>	21,739 pounds.	
<b>OPCION C:</b>	22,189 pounds.	

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9593	Figures 119 to 122	A
	What is the specific range in nautical miles per 1,000 pounds of fuel from level-off to start of descent using .78 Mach?	
<b>OPCION A:</b>	48.8 NAM/1000.	
<b>OPCION B:</b>	52.5 NAM/1000.	
<b>OPCION C:</b>	55.9 NAM/1000.	

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9594	Figures 119 to 122	B
	What is the ETE from BUF to ORD using .80 Mach?	
<b>OPCION A:</b>	1 hour 01 minutes.	
<b>OPCION B:</b>	1 hour 04 minutes.	
<b>OPCION C:</b>	1 hour 08 minutes.	

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9595	Figures 119 to 122	C
	What is the total fuel required for the flight from BUF to ORD using .80 Mach?	
<b>OPCION A:</b>	19,388 pounds.	
<b>OPCION B:</b>	22,094 pounds.	
<b>OPCION C:</b>	21,644 pounds.	

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9597	Figures 158, 159, 160, 160A, 161.	C
	The estimated time en route from STL to LGA for N711JB is	
<b>OPCION A:</b>	1 hour 46 minutes.	
<b>OPCION B:</b>	1 hour 50 minutes.	
<b>OPCION C:</b>	1 hour 54 minutes.	

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9598	Figures 158, 159, 160, 160A, and 161	B
	The required amount of fuel (in pounds) to be on N711JB, prior to taxi, is	
<b>OPCION A:</b>	5,993 pounds.	
<b>OPCION B:</b>	6,408 pounds.	
<b>OPCION C:</b>	6,641 pounds.	

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9610	Figures 168, 169, 169A, 171, and 172.	B
	What is the ETE for PTZ 70 from Chicago Pal-Waukee Airport to Greater Buffalo Int'l Airport?	
<b>OPCION A:</b>	2 hours 15 minutes.	
<b>OPCION B:</b>	2 hours 18 minutes.	
<b>OPCION C:</b>	2 hours 21 minutes.	

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9611	Figures 168, 169, 169A, 171, and 172.	A
	What is the computed fuel usage for PTZ 70 from start or taxi at Chicago Pal-Waukee to landing at Greater Buffalo Int'l?	
<b>OPCION A:</b>	1,642 pounds.	
<b>OPCION B:</b>	2,005 pounds.	
<b>OPCION C:</b>	2,550 pounds.	

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9612	Figures 168, 171, 172, and 173.	C
	What TAS should PTZ 70 maintain to arrive at FNT 30 minutes after passing PMM?	
<b>OPCION A:</b>	255 knots.	
<b>OPCION B:</b>	265 knots.	
<b>OPCION C:</b>	260 knots.	

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9626	Figures 179, 180A, 181, 182, and 182A.	C
	The time en route from Newport News/Williamsburg Int'l to Philadelphia Int'l via the flight plan of EAB 90 is	
<b>OPCION A:</b>	1 hour 27 minutes.	
<b>OPCION B:</b>	1 hour 29 minutes.	
<b>OPCION C:</b>	1 hour 31 minutes.	

---

9627	Figures 179, 180, 181, 182, and 182A.	A
	The planned fuel usage from Newport News/Williamsburg Int'l to Philadelphia Int'l for EAB 90 is	
<b>OPCION A:</b>	1,132 pounds.	
<b>OPCION B:</b>	1,107 pounds.	
<b>OPCION C:</b>	1,084 pounds.	

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9628	Figures 179, 180, 181, 182, and 183.	B
	The required fuel from Newport News/Williamsburg Int'l to Philadelphia Int'l for EAB 90 is	
<b>OPCION A:</b>	1,860 pounds.	
<b>OPCION B:</b>	1,908 pounds.	
<b>OPCION C:</b>	2,003 pounds.	

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9635	Figures 179 to 183	A
	What "TAS" would EAB 90 need to maintain from SWL to SIE in an attempt to cut 3 minutes off of the flight plan (SWL-SIE) ETE?	
<b>OPCION A:</b>	276.	
<b>OPCION B:</b>	280.	
<b>OPCION C:</b>	284.	

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9642	Figures 190, 191, 192, 193, 193A, 194, 195, and 195A.	A
	The estimated time en route from MSP to DEN for PIL 10 is	
<b>OPCION A:</b>	1 hour 54 minutes.	
<b>OPCION B:</b>	1 hour 57 minutes.	
<b>OPCION C:</b>	2 hours 00 minutes.	

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9643	Figures 190, 191, 192, 193, 193A, 194, 195, and 195A.	A
	The required fuel that should be onboard PIL 10 at MSP is	
<b>OPCION A:</b>	28,053 pounds.	
<b>OPCION B:</b>	29,057 pounds.	
<b>OPCION C:</b>	29,960 pounds.	

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9656	Figures 185A, 202, 203, 203A, 204, 205A, and 206.	B
	For PTL 55 to be dispatched on this flight plan (LAS-SFO), how much fuel is required to be onboard at the start of taxi?	
<b>OPCION A:</b>	27,800 pounds.	
<b>OPCION B:</b>	28,317 pounds.	
<b>OPCION C:</b>	29,450 pounds.	

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9657	Figures 185A, 202, 203, 203A, 204, 205A, and 206.	C
	The ETE on this flight plan (PTL 55 LAS-SFO), is	
<b>OPCION A:</b>	1 hour 25 minutes.	
<b>OPCION B:</b>	1 hour 27 minutes.	
<b>OPCION C:</b>	1 hour 29 minutes.	

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9664	Figure 202 In block 3 of the flight plan, there is the following entry: B/B747/R. What does the prefix "B" indicate?	B
<b>OPCION A:</b>	Foreign air carrier (Brazil).	
<b>OPCION B:</b>	TCAS and heavy.	
<b>OPCION C:</b>	DME and transponder but no altitude encoding capability.	

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9665	Figure 202 In block 3 of the flight plan, there is the following entry: B/B747/R. What does the suffix "/R" indicate?	A
<b>OPCION A:</b>	RNAV/Transponder/altitude encoding capability.	
<b>OPCION B:</b>	That the flight plan contains an RNAV route.	
<b>OPCION C:</b>	RNAV/TCAS/Transponder/altitude encoding capability.	

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9676	Figure 214 In block 3 of the flight plan, the G following MD90/indicates the aircraft is equipped with	A
<b>OPCION A:</b>	GPS/GNSS that has oceanic, en route, terminal, and GPS approach capability.	
<b>OPCION B:</b>	Traffic Alert and Collision Avoidance System (TCAS) with /R capability.	
<b>OPCION C:</b>	Electronic Flight Instrument System (EFIS).	

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9677	Figures 182, 214, 216, 216A, 217, and 218. The time enroute between BDL and PHL for TNA 90 is	B
<b>OPCION A:</b>	54 minutes.	
<b>OPCION B:</b>	52 minutes.	
<b>OPCION C:</b>	50 minutes.	

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9678	Figures 214, 216, 216A, 217, and 218. The total fuel required to be onboard TNA 90 before starting to taxi at BDL is	B
<b>OPCION A:</b>	11,979 pounds.	
<b>OPCION B:</b>	11,735 pounds.	
<b>OPCION C:</b>	11,851 pounds.	

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9679	Figures 214, 216, 216A, 217, and 218. The estimated fuel usage between BDL and PHL for TNA 90 is	C
<b>OPCION A:</b>	10,555 pounds.	
<b>OPCION B:</b>	10,799 pounds.	
<b>OPCION C:</b>	6,130 pounds.	

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