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PREG20097961 (Refer to Figure 43.) What is the single-engine landing distance over a 50-foot obstacle? B  
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
- 

PREG20097956 (Refer to Figure 42.) Given the following, what is the airspeed (VNE)? B  
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
- 

PREG20097960 (Refer to Figure 42.) What is the single-engine landing distance over a 50 foot obstacle? C  
Gross weight ..... 12,500 lb  
Pressure altitude ..... 3,500 ft  
Temperature (OAT) ..... +30°C

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

PREG20097959 (Refer to Figure 42.) What is the airspeed limit (VNE)? C  
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
- 

PREG20097958 (Refer to Figure 42.) What is the airspeed limit (VNE)? A  
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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PREG20097957 (Refer to Figure 42.) What is the airspeed limit (VNE)? A  
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
- 

PREG20097953 (Refer to Figure 41.) Given the following, what is the single-engine climb or descent performance? C  
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
- 

PREG20097979 Which is the correct symbol for design cruising speed? A

- OPCION A:**  $V_c$   
**OPCION B:**  $V_s$   
**OPCION C:**  $V_{ma}$
- 

PREG20097952 (Refer to Figure 41.) Given the following, what is the single-engine climb or descent performance? B  
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
- 

PREG20097951 (Refer to Figure 41.) Given the following, what is the single-engine climb or descent performance? C  
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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PREG20097950 (Refer to Figure 41.) What is the single-engine climb or descent performance? A  
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/min climb

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PREG20097962 (Refer to Figure 43.) What is the single-engine landing distance over a 50 foot obstacle? A  
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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PREG20097955 (Refer to Figure 42.) Given the following, what is the airspeed (VNE)? A  
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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PREG20097963 (Refer to Figure 43.) What is the single-engine landing distance over a 50 foot obstacle? B  
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

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PREG20097973 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

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PREG20097965 Which place in the turbojet engine is subjected to the highest temperature? C

**OPCION A:** Compressor discharge

**OPCION B:** Fuel spray nozzles

**OPCION C:** Turbine inlet

PREG20097949 (Refer to Figure 40.) 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

PREG20097978 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

PREG20097977 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

PREG20097976 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

PREG20097975 Under normal operating conditions, which combination of MAP and RPM produce the most severe wear, fatigue, and damage to high performance reciprocating engines? A

**OPCION A:** High RPM and low MAP

**OPCION B:** Low RPM and high MAP

**OPCION C:** High RPM and high MAP

PREG20097974 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

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**OPCION C:** Reduce throttle, reduce airspeed, and increase angle of attack

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PREG20097972 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 flow reversal

**OPCION C:** Complete loss of power with severe reduction in airspeed

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PREG20097971 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

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PREG20097970 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

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PREG20097969 What effect will an increase in altitude have upon the available equivalent shaft horsepower (ESHP) of a turboprop engine? A

**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

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PREG20097968 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

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PREG20097967 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

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PREG20097966 What effect would a change in ambient temperature or air density have on gas-turbine-engine performance? C

**OPCION A:** As air density decreases, thrust increases

**OPCION B:** As temperature increases, thrust increases

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**OPCION C:** As temperature increases, thrust decreases

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PREG20097964 (Refer to Figure 43.) What is the single-engine landing distance over a 50-foot obstacle? C  
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

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PREG20097948 (Refer to Figure 40.) What is the climb performance with both engines operating? B  
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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PREG20097954 (Refer to Figure 41.) Given the following, what is the single-engine climb or descent performance? A  
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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PREG20097946 (Refer to Figure 40.) What is the climb performance with both engines operating? B  
Pressure altitude 7,500 ft  
Temperature +5° C  
Heater ON

**OPCION A:** 905 ft/min

**OPCION B:** 765 ft/min

**OPCION C:** 1,080 ft/min

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PREG20097928 (Refer to Figure 36.) Given the following conditions, what is the maximum allowable measured gas temperature (MGT) during the power assurance check? B  
Engine torque ..... 43%  
Pressure altitude ..... 9,000 ft.  
Temperature (OAT) ..... -15°C

**OPCION A:** 782°C.

**OPCION B:** 768°C.

**OPCION C:** 750°C.

PREG20097926 (Refer to Figure 36.) Given the following conditions, what is the maximum allowable measured gas temperature (MGT) during the power assurance check? A

Engine Torque ..... 49%  
Pressure altitude ..... 5,500 ft.  
Temperature (OAT) ..... +25°C

**OPCION A:** 870°C.

**OPCION B:** 855°C.

**OPCION C:** 880°C.

PREG20097925 (Refer to Figure 36.) Given the following conditions, what is the maximum allowable measured gas temperature (MGT) during the power assurance check? C

Engine Torque ..... 57%  
Pressure altitude ..... 2,500 ft.  
Temperature (OAT).....+5°C

**OPCION A:** 810°C.

**OPCION B:** 815°C.

**OPCION C:** 828°C.

PREG20097924 The main rotor blades of a semi-rigid system can A

**OPCION A:** flap and feather as a unit.

**OPCION B:** flap, drag, and feather independently.

**OPCION C:** flap and drag individually, but can only feather collectively.

PREG20097923 The main rotor blades of a fully articulated rotor system can B

**OPCION A:** flap, drag, and feather collectively.

**OPCION B:** flap, drag, and feather independently of each other.

**OPCION C:** flap and drag individually, but can only feather collectively.

PREG20097929 (Refer to Figure 36.) Given the following conditions, what is the maximum allowable measured gas temperature (MGT) during the power assurance check? B

Engine torque ..... 52%  
Pressure altitude ..... 1,500 ft.  
Temperature (OAT) ..... +35°C

**OPCION A:** 880°C.

**OPCION B:** 865°C.

**OPCION C:** 872°C.

PREG20097922 What is the primary purpose of the free-wheeling unit? B

**OPCION A:** To provide speed reduction between the engine, main rotor system, and the tail rotor system.



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**OPCION B:** To provide disengagement of the engine from the rotor system for autorotation purposes.

**OPCION C:** To transmit engine power to the main rotor, tail rotor, generator/alternator, and other accessories.

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PREG20097920 What type frequency vibration is associated with the main rotor system? A

**OPCION A:** Low frequency.

**OPCION B:** Medium frequency.

**OPCION C:** High frequency.

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PREG20097919 What type frequency vibration is associated with a defective transmission? C

**OPCION A:** Low frequency.

**OPCION B:** Medium frequency.

**OPCION C:** High frequency.

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PREG20097918 Which type of rotor system is more susceptible to ground resonance? A

**OPCION A:** Fully articulated rotor system.

**OPCION B:** Semi-rigid rotor system.

**OPCION C:** Rigid rotor system.

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PREG20097917 How can turbulent air cause an increase in stalling speed of an airfoil? A

**OPCION A:** An abrupt change in relative wind

**OPCION B:** A decrease in angle of attack

**OPCION C:** Sudden decrease in load factor

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PREG20097947 (Refer to Figure 40.) What is the climb performance with both engines operating? B

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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PREG20097921 What type frequency vibration is indicative of a defective tail rotor system? B

**OPCION A:** Low frequency.

**OPCION B:** Medium frequency.

**OPCION C:** High frequency.

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PREG20097930 (Refer to Figure 37.) What is the maximum gross weight for hovering in ground effect at 3,000' pressure altitude and +25°C? A

**OPCION A:** 17,300 pounds.  
**OPCION B:** 14,700 pounds.  
**OPCION C:** 16,600 pounds.

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PREG20097927 (Refer to Figure 36.) Given the following conditions, what is the maximum allowable measured gas temperature (MGT) during the power assurance check? A

Engine torque ..... 54%  
Pressure altitude ..... 500 ft.  
Temperature (OAT) ..... +25°C

**OPCION A:** 840°C.  
**OPCION B:** 830°C.  
**OPCION C:** 820°C.

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PREG20097932 (Refer to Figure 37.) What is the maximum gross weight for hovering in ground effect at 7,000' pressure altitude and +35°C? A

**OPCION A:** 13,500 pounds.  
**OPCION B:** 14,700 pounds.  
**OPCION C:** 12,100 pounds.

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PREG20097945 (Refer to Figure 40.) What is the climb performance with both engines operating? B

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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PREG20097944 (Refer to Figure 39.) What is the takeoff distance over a 50-foot obstacle? B

Pressure altitude ..... -1,000 ft.  
Temperature (OAT)..... +25°C  
Gross weight ..... 14,000 lb.

**OPCION A:** 1,000 feet.  
**OPCION B:** 900 feet.  
**OPCION C:** 950 feet.

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PREG20097943 (Refer to Figure 39.) What is the takeoff distance over a 50-foot obstacle? B

Pressure altitude ..... 9,000 ft.  
Temperature (OAT) ..... +20°C  
Gross weight ..... 15,000 lb.

**OPCION A:** 1,300 feet.  
**OPCION B:** 1,350 feet.

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**OPCION C:** 1,250 feet.

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PREG20097931 (Refer to Figure 37.) What is the maximum gross weight for hovering in ground effect at 6,000' pressure altitude and +15°C? B

**OPCION A:** 17,200 pounds.

**OPCION B:** 16,600 pounds.

**OPCION C:** 14,200 pounds.

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PREG20097941 (Refer to Figure 39.) What is the takeoff distance over a 50-foot obstacle? C

Pressure altitude ..... 5,000 ft.

Temperature (OAT) ..... -10°C

Gross weight ..... 11,000 lb.

**OPCION A:** 1,000 feet.

**OPCION B:** 920 feet.

**OPCION C:** 870 feet.

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PREG20097940 (Refer to Figure 39.) What is the takeoff distance over a 50-foot obstacle? A

Pressure altitude ..... 3,500 ft

Temperature (OAT) ..... +20°C

Gross weight ..... 15,000 lb.

**OPCION A:** 1,070 feet.

**OPCION B:** 1,020 feet.

**OPCION C:** 1,100 feet.

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PREG20097939 (Refer to Figure 38.) What is the maximum gross weight for hovering out of ground effect at 2,500' pressure altitude and +30°C? C

**OPCION A:** 17,400 pounds.

**OPCION B:** 15,000 pounds.

**OPCION C:** 14,500 pounds.

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PREG20097942 (Refer to Figure 39.) What is the takeoff distance over a 50-foot obstacle? B

Pressure altitude ..... 6,500 ft.

Temperature (OAT) ..... 0°C

Gross weight ..... 13,500 lb.

**OPCION A:** 1,500 feet.

**OPCION B:** 1,050 feet.

**OPCION C:** 1,100 feet.

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