

**3236**

With regard to carburetor ice, float-type carburetor systems in comparison to fuel injection systems are generally considered to be

- A) more susceptible to icing.
- B) equally susceptible to icing.
- C) susceptible to icing only when visible moisture is present.

### 3207

In what flight condition is torque effect the greatest in a single-engine airplane?

- A) Low airspeed, high power, high angle of attack.
- B) Low airspeed, low power, low angle of attack.
- C) High airspeed, high power, high angle of attack.

### 3245

An abnormally high engine oil temperature indication may be caused by

- A) operating with an excessively rich mixture.
- B) operating with a too high viscosity oil.
- C) the oil level being too low.

### 3240

The uncontrolled firing of the fuel/air charge in advance of normal spark ignition is known as

- A) detonation.
- B) combustion.
- C) pre-ignition.

### 3630

(Refer to figure 22.) On what frequency can a pilot receive Hazardous Inflight Weather Advisory Service (HIWAS) in the vicinity of area 1?

- A) 117.1 MHz.
- B) 118.0 MHz.

- C) 122.0 MHz.

## 3185

An aircraft's annual condition inspection was performed on July 12, this year. The next annual inspection will be due no later than

- A) July 31, next year.
- B) July 13, next year.
- C) July 1, next year.

## 3105

If an altimeter setting is not available before flight, to which altitude should the pilot adjust the altimeter?

- A) Pressure altitude corrected for nonstandard temperature.
- B) The elevation of the nearest airport corrected to mean sea level.
- C) The elevation of the departure area.

## 3097

Unless otherwise authorized, what is the maximum indicated airspeed at which a person may operate an aircraft below 10,000 feet MSL?

- A) 250 knots.
- B) 288 knots.
- C) 200 knots.

## 3091

Which aircraft has the right-of-way over the other aircraft listed?

- A) Airship.
- B) Gyroplane.
- C) Aircraft towing other aircraft.

## 3225

The operating principle of float-type carburetors is based on the

- A) increase in air velocity in the throat of a venturi causing an increase in air pressure.
- B) difference in air pressure at the venturi throat and the air inlet.
- C) automatic metering of air at the venturi as the aircraft gains altitude.

## 3278

(Refer to figure 7.) How should a pilot determine the direction of bank from an attitude indicator such as the one illustrated?

- A) By the relationship of the miniature airplane (C) to the deflected horizon bar (B).
- B) By the direction of deflection of the horizon bar (B).
- C) By the direction of deflection of the banking scale (A).

## 3203

(Refer to figure 1.) The acute angle A is the angle of

- A) attack.
- B) incidence.
- C) dihedral.

### 3079

No person may attempt to act as a crewmember of a civil aircraft with

- A) .04 percent by weight or more alcohol in the blood.
- B) .008 percent by weight or more alcohol in the blood.
- C) .004 percent by weight or more alcohol in the blood.

### 3635

(Refer to figure 22.) Which public use airports depicted are indicated as having fuel?

- A) Minot Intl. (area 1) and Mercer County Regional Airport (area 3).
- B) Minot Intl. (area 1) and Garrison (area 2).
- C) Mercer County Regional Airport (area 3) and Garrison (area 2).

### 3190

A 100-hour inspection was due at 3302.5 hours. The 100-hour inspection was actually done at 3309.5 hours. When is the next 100-hour inspection due?

- A) 3312.5 hours.
- B) 3409.5 hours.
- C) 3402.5 hours.

### 3634

(Refer to figure 22.) The terrain elevation of the light tan area between Minot (area 1) and Audubon Lake (area 2) varies from

- A) sea level to 2,000 feet MSL.
- B) 2,000 feet to 2,700 feet MSL.
- C) 2,000 feet to 2,500 feet MSL.

### 3167

No person may operate an aircraft in acrobatic flight when

- A) flight visibility is less than 5 miles.
- B) over any congested area of a city, town, or settlement.
- C) less than 2,500 feet AGL.

## 3163

When operating an aircraft at cabin pressure altitudes above 12,500 feet MSL up to and including 14,000 feet MSL, supplemental oxygen shall be used during

- A) that flight time in excess of 30 minutes at those altitudes.
- B) the entire flight time at those altitudes.
- C) that flight time in excess of 10 minutes at those altitudes.

## 3575

(Refer to figure 28.) An aircraft departs an airport in the Pacific standard time zone at 1030 PST for a 4-hour flight to an airport located in the central standard time zone. The landing should be at what coordinated universal time?

- A) 2030Z.
- B) 2130Z.
- C) 2230Z.

## 3933

What is the antidote when a pilot has a hazardous attitude, such as "Impulsivity"?

- A) Do it quickly to get it over with.
- B) It could happen to me.
- C) Not so fast, think first.

## 3222

If the engine oil temperature and cylinder head temperature gauges have exceeded their normal operating range, the pilot may have been operating with

- A) higher-than-normal oil pressure.
- B) too much power and with the mixture set too lean.
- C) the mixture set too rich.

## 3632

(Refer to figure 21, area 2.) The flag symbol at Lake Drummond represents a

- A) visual checkpoint used to identify position for initial callup to Norfolk Approach Control.
- B) compulsory reporting point for Norfolk Class C airspace.
- C) compulsory reporting point for Hampton Roads Airport.

## 3170

No person may operate an aircraft in acrobatic flight when the flight visibility is less than

- A) 3 miles.
- B) 7 miles.
- C) 5 miles.

## 3562

(Refer to figure 26.) What is the estimated time en route for a flight from Denton Muni (area 1) to Addison (area 2)? The wind is from 200° at 20 knots, the true airspeed is 110 knots, and the magnetic variation is 7° east.

- A) 13 minutes.
- B) 16 minutes.
- C) 19 minutes.

## 3178

Which is normally prohibited when operating a restricted category civil aircraft?

- A) Flight under instrument flight rules.
- B) Flight within Class D airspace.
- C) Flight over a densely populated area.

## 3934

What is the antidote when a pilot has a hazardous attitude, such as "Invulnerability"?

- A) It could happen to me.
- B) It can not be that bad.
- C) It will not happen to me.

## 3183

If an alteration or repair substantially affects an aircraft's operation in flight, that aircraft must be test flown by an appropriately-rated pilot and approved for return to service prior to being operated

- A) by any private pilot.
- B) with passengers aboard.
- C) for compensation or hire.

## 3310

During a spin to the left, which wing(s) is/are stalled?

- A) Neither wing is stalled.
- B) Both wings are stalled.
- C) Only the left wing is stalled.

## 3160

When must batteries in an emergency locator transmitter (ELT) be replaced or recharged, if rechargeable?

- A) When the ELT can no longer be heard over the airplane's communication radio receiver.
- B) When the ELT has been in use for more than 1 cumulative hour.
- C) After any inadvertent activation of the ELT.

## 3013

Preventive maintenance has been performed on an aircraft. What paperwork is required?

- A) The signature, certificate number, and kind of certificate held by the person approving the work and a description of the work must be entered in the aircraft maintenance records.
- B) The date the work was completed, and the name of the person who did the work must be entered in the airframe and engine logbook.
- C) A full, detailed description of the work done must be entered in the airframe logbook.

What is the one common factor which affects most preventable accidents?

- A) Mechanical malfunction.
- B) Structural failure.
- C) Human error.

## 3271

(Refer to figure 4.) Which color identifies the normal flap operating range?

- A) The lower limit of the white arc to the upper limit of the green arc.
- B) The green arc.
- C) The white arc.

## 3169

What is the lowest altitude permitted for acrobatic flight?

- A) 2,000 feet AGL.
- B) 1,000 feet AGL.
- C) 1,500 feet AGL.

## 3187

How long does the Airworthiness Certificate of an aircraft remain valid?

- A) As long as the aircraft has a current Registration Certificate.
- B) Indefinitely, unless the aircraft suffers major damage.
- C) As long as the aircraft is maintained and operated as required by Federal Aviation Regulations.

## 3232

Applying carburetor heat will

- A) not affect the fuel/air mixture.
- B) result in more air going through the carburetor.
- C) enrich the fuel/air mixture.

## 3191

No person may use an ATC transponder unless it has been tested and inspected within at least the preceding

- A) 24 calendar months.

- B) 12 calendar months.
- C) 6 calendar months.

## 3272

(Refer to figure 4.) Which color identifies the power-off stalling speed with wing flaps and landing gear in the landing configuration?

- A) Upper limit of the white arc.
- B) Lower limit of the white arc.
- C) Upper limit of the green arc.

## 3572

(Refer to figure 28.) An aircraft departs an airport in the central standard time zone at 0930 CST for a 2-hour flight to an airport located in the mountain standard time zone. The landing should be at what time?

- A) 0930 MST.
- B) 1130 MST.
- C) 1030 MST.

## 3242

What type fuel can be substituted for an aircraft if the recommended octane is not available?

- A) The next higher octane aviation gas.
- B) Unleaded automotive gas of the same octane rating.
- C) The next lower octane aviation gas.

## 3192

Maintenance records show the last transponder inspection was performed on September 1, 2006. The next inspection will be due no later than

- A) September 1, 2008.
- B) September 30, 2008.
- C) September 30, 2007.

## 3078

Under what condition, if any, may a pilot allow a person who is obviously under the influence of drugs to be carried aboard an aircraft?

- A) Under no condition.
- B) Only if the person does not have access to the cockpit or pilot's compartment.
- C) In an emergency or if the person is a medical patient under proper care.

## 0003

As Pilot in Command of an aircraft, under which situation can you deviate from an ATC clearance?

- A) If an ATC clearance is not understood and in VFR conditions.



- B) In response to a traffic alert and collision avoidance system resolution advisory.
- C) When operating in Class A airspace at night.

## 3088

No person may operate an aircraft in formation flight

- A) over a densely populated area.
- B) except by prior arrangement with the pilot in command of each aircraft.
- C) in Class D airspace under special VFR.

## 3123

Which is the correct traffic pattern departure procedure to use at a noncontrolled airport?

- A) Depart in any direction consistent with safety, after crossing the airport boundary.
- B) Comply with any FAA traffic pattern established for the airport.
- C) Make all turns to the left.

## 3219

One of the main functions of flaps during approach and landing is to

- A) permit a touchdown at a higher indicated airspeed.
- B) decrease the angle of descent without increasing the airspeed.
- C) increase the angle of descent without increasing the airspeed.

## 3223

One purpose of the dual ignition system on an aircraft engine is to provide for

- A) uniform heat distribution.
- B) balanced cylinder head pressure.
- C) improved engine performance.

## 3852

Pilots are more subject to spatial disorientation if

- A) visual cues are taken away, as they are in instrument meteorological conditions (IMC).
- B) they ignore the sensations of muscles and inner ear.
- C) eyes are moved often in the process of cross-checking the flight instruments.

## 3641

(Refer to figure 26, area 2.) The control tower frequency for Addison Airport is

- A) 133.4 MHz.
- B) 126.0 MHz.
- C) 122.95 MHz.

## 3165

An operable 4096-code transponder with an encoding altimeter is required in which airspace?

- A) Class A, Class B (and within 30 miles of the Class B primary airport), and Class C.
- B) Class D and Class G (below 10,000 feet MSL).
- C) Class D and Class E (below 10,000 feet MSL).

## 3231

If an aircraft is equipped with a fixed-pitch propeller and a float-type carburetor, the first indication of carburetor ice would most likely be

- A) loss of RPM.
- B) engine roughness.
- C) a drop in oil temperature and cylinder head temperature.

## 3181

The responsibility for ensuring that maintenance personnel make the appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service lies with the

- A) owner or operator.
- B) mechanic who performed the work.
- C) pilot in command.

## 3073

When must a pilot who deviates from a regulation during an emergency send a written report of that deviation to the Administrator?

- A) Within 10 days.
- B) Within 7 days.
- C) Upon request.

## 3261

If it is necessary to set the altimeter from 29.15 to 29.85, what change occurs?

- A) 70-foot increase in density altitude.
- B) 700-foot increase in indicated altitude.
- C) 70-foot increase in indicated altitude.

## 3224

On aircraft equipped with fuel pumps, when is the auxiliary electric driven pump used?

- A) In the event engine-driven fuel pump fails.
- B) All the time to aid the engine-driven fuel pump.
- C) Constantly except in starting the engine.

## 3077

A person may not act as a crewmember of a civil aircraft if alcoholic beverages have been consumed by that person within the preceding

- A) 12 hours.
- B) 8 hours.
- C) 24 hours.

## 3654

What is an advantage of a constant-speed propeller?

- A) Permits the pilot to select and maintain a desired cruising speed.
- B) Permits the pilot to select the blade angle for the most efficient performance.
- C) Provides a smoother operation with stable RPM and eliminates vibrations.

## 3035

If a certificated pilot changes permanent mailing address and fails to notify the FAA Airmen Certification Branch of the new address, the pilot is entitled to exercise the privileges of the pilot certificate for a period of only

- A) 30 days after the date of the move.
- B) 90 days after the date of the move.
- C) 60 days after the date of the move.

## 3243

Filling the fuel tanks after the last flight of the day is considered a good operating procedure because this will

- A) force any existing water to the top of the tank away from the fuel lines to the engine.
- B) prevent moisture condensation by eliminating airspace in the tanks.
- C) prevent expansion of the fuel by eliminating airspace in the tanks.

## 3940

What is one of the neglected items when a pilot relies on short and long term memory for repetitive tasks?

- A) Checklists.
- B) Flying outside the envelope.
- C) Situation awareness.

## 3233

Detonation may occur at high-power settings when

- A) the fuel mixture ignites instantaneously instead of burning progressively and evenly.
- B) an excessively rich fuel mixture causes an explosive gain in power.
- C) the fuel mixture is ignited too early by hot carbon deposits in the cylinder.

## 3710

Prior to starting each maneuver, pilots should

- A) visually scan the entire area for collision avoidance.

- B) check altitude, airspeed, and heading indications.
- C) announce their intentions on the nearest CTAF.

## 3227

During the run-up at a high-elevation airport, a pilot notes a slight engine roughness that is not affected by the magneto check but grows worse during the carburetor heat check. Under these circumstances, what would be the most logical initial action?

- A) Taxi back to the flight line for a maintenance check.
- B) Check the results obtained with a leaner setting of the mixture.
- C) Reduce manifold pressure to control detonation.

## 3026

Before a person holding a private pilot certificate may act as pilot in command of a high-performance airplane, that person must have

- A) an endorsement in that person's logbook that he or she is competent to act as pilot in command.
- B) received ground and flight instruction from an authorized flight instructor who then endorses that person's logbook.
- C) passed a flight test in that airplane from an FAA inspector.

## 3244

For internal cooling, reciprocating aircraft engines are especially dependent on

- A) the circulation of lubricating oil.
- B) air flowing over the exhaust manifold.
- C) a properly functioning thermostat.

## 3019

Each person who holds a pilot certificate or a medical certificate shall present it for inspection upon the request of the Administrator, the National Transportation Safety Board, or any

- A) authorized representative of the Department of Transportation.
- B) person in a position of authority.
- C) federal, state, or local law enforcement officer.

## 3221

Excessively high engine temperatures will

- A) cause damage to heat-conducting hoses and warping of the cylinder cooling fins.
- B) not appreciably affect an aircraft engine.
- C) cause loss of power, excessive oil consumption, and possible permanent internal engine damage.

## 3036

A certificated private pilot may not act as pilot in command of an aircraft towing a glider unless there is entered in the pilot's logbook a minimum of

- A) 200 hours of pilot-in-command time in the aircraft category, class, and type, if required, that the pilot is using to tow a glider.
- B) 100 hours of pilot flight time in any aircraft, that the pilot is using to tow a glider.
- C) 100 hours of pilot-in-command time in the aircraft category, class, and type, if required, that the pilot is using to tow a glider.

## 3255

How do variations in temperature affect the altimeter?

- A) Pressure levels are raised on warm days and the indicated altitude is lower than true altitude.
- B) Lower temperatures lower the pressure levels and the indicated altitude is lower than true altitude.
- C) Higher temperatures expand the pressure levels and the indicated altitude is higher than true altitude.

## 3260

Under what condition is indicated altitude the same as true altitude?

- A) When at 18,000 feet MSL with the altimeter set at 29.92.
- B) When at sea level under standard conditions.
- C) If the altimeter has no mechanical error.

## 3548

(Refer to figure 24.) What is the estimated time en route for a flight from Allendale County Airport (area 1) to Claxton-Evans County Airport (area 2)? The wind is from 100° at 18 knots and the true airspeed is 115 knots. Add 2 minutes for climb-out.

- A) 33 minutes.
- B) 27 minutes.
- C) 30 minutes.

## 0002

How soon after the conviction for driving while intoxicated by alcohol or drugs shall it be reported to the FAA, Civil Aviation Security Division?

- A) No later than 60 days after the motor vehicle action.
- B) Required to be reported upon renewal of medical certificate.
- C) No later than 30 working days after the motor vehicle action.

## 3273

(Refer to figure 4.) What is the maximum structural cruising speed?

- A) 208 MPH.
- B) 100 MPH.
- C) 165 MPH.

## 3013

What regulation allows a private pilot to perform preventive maintenance?

- A) 14 CFR Part 61.113.
- B) 14 CFR Part 91.403.
- C) 14 CFR Part 43.7.

## 3089

Which aircraft has the right-of-way over all other air traffic?

- A) An aircraft in distress.
- B) A balloon.
- C) An aircraft on final approach to land.

## 3118

Airspace at an airport with a part-time control tower is classified as Class D airspace only

- A) when the weather minimums are below basic VFR.
- B) when the associated control tower is in operation.
- C) when the associated Flight Service Station is in operation.

## 3090

What action is required when two aircraft of the same category converge, but not head-on?

- A) Each aircraft shall give way to the right.
- B) The faster aircraft shall give way.
- C) The aircraft on the left shall give way.

## 3041

Each recreational or private pilot is required to have

- A) an annual flight review.
- B) a semiannual flight review.
- C) a biennial flight review.

## 3111

A steady green light signal directed from the control tower to an aircraft in flight is a signal that the pilot

- A) should return for landing.
- B) is cleared to land.
- C) should give way to other aircraft and continue circling.

## 3571

(Refer to figure 28.) An aircraft departs an airport in the eastern daylight time zone at 0945 EDT for a 2-

hour flight to an airport located in the central daylight time zone. The landing should be at what coordinated universal time?

- A) 1445Z.
- B) 1545Z.
- C) 1345Z.

## 3072

If an in-flight emergency requires immediate action, the pilot in command may

- A) not deviate from any rule of 14 CFR part 91 unless prior to the deviation approval is granted by the Administrator.
- B) deviate from any rule of 14 CFR part 91 to the extent required to meet the emergency, but must submit a written report to the Administrator within 24 hours.
- C) deviate from any rule of 14 CFR part 91 to the extent required to meet that emergency.

## 3653

How is engine operation controlled on an engine equipped with a constant-speed propeller?

- A) The throttle controls engine RPM as registered on the tachometer and the mixture control regulates the power output.
- B) The throttle controls power output as registered on the manifold pressure gauge and the propeller control regulates engine RPM.
- C) The throttle controls power output as registered on the manifold pressure gauge and the propeller control regulates a constant blade angle.

## 3550

(Refer to figure 24.) Determine the magnetic heading for a flight from Allendale County Airport (area 1) to Claxton-Evans County Airport (area 2). The wind is from 090° at 16 knots, and the true airspeed is 90 knots.

- A) 208°.
- B) 230°.
- C) 212°.