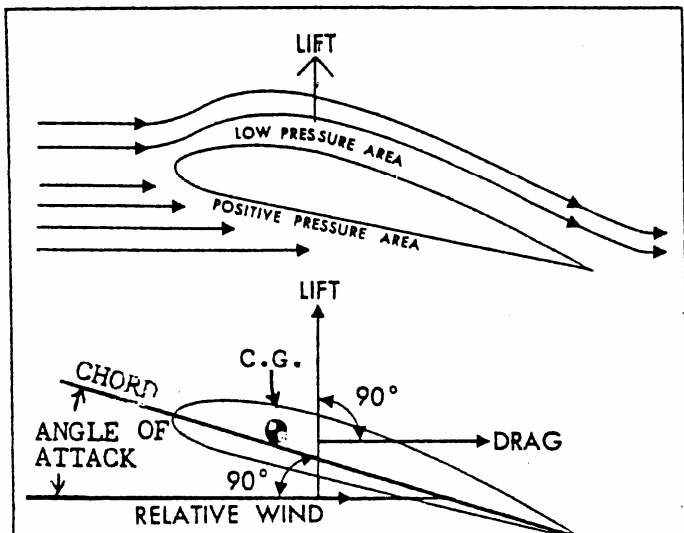




AERODYNAMICS AND AIRCRAFT OPERATIONS

Definitions

Angle of attack is the angle between the wing chord line and



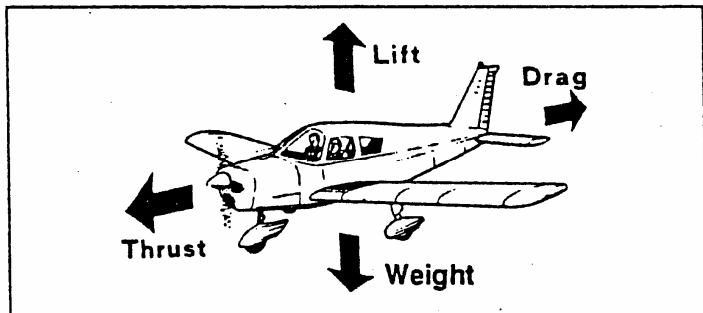
the direction of the relative wind. It changes as your flight path changes.

Chord line is the line between the leading and the trailing edge of the airfoil.

Relative wind is the direction of the airflow with respect to the wing. It is also the direction opposite and parallel to the flight path.

Forces Acting On The Aircraft

Lift is the difference in pressure between the upper (lower

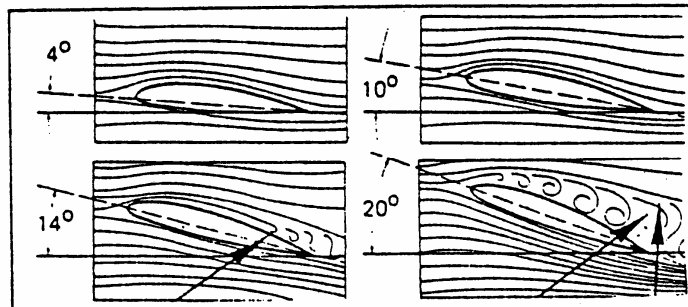


pressure) and lower (higher pressure area) wing surfaces.

Drag is the rearward force of wind resistance.

Thrust is the forward acting force, produced by the propeller. Lift equals weight whenever you are in straight and level

Forces Acting On The Aircraft (Cont)



flight, or climbing or descending at a constant rate (un-accelerated flight). Thrust is equal to drag whenever your airspeed is constant.

Angle Of Attack And Stalling Speeds

An airplane can be stalled at any airspeed and in any flight attitude.

The angle of attack at which an airplane stalls will always remain the same.

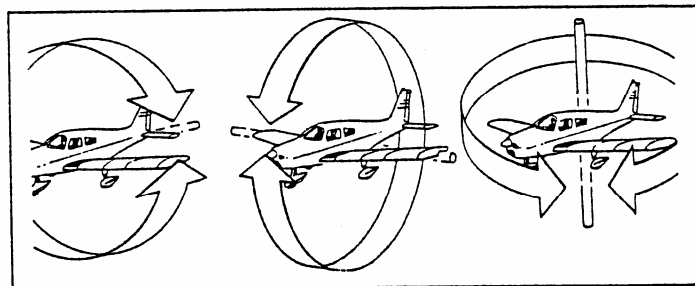
An airplane will spin only after having been stalled. During a spin to the left, both wings remain stalled, but the right wing is less stalled than the left wing.

Load Factor

Load factor is the actual load on the wings at any time divided by the weight of the airplane. Increased Load factor in turns, for example, will cause an airplane to stall at a higher airspeed.

The amount of excess load that can be imposed on the wing of an airplane depends upon the speed of the airplane.

Functions Of The Flight Controls



Ailerons roll the airplane about the longitudinal axis to change the bank. The airplane turns because of the horizontal component of lift.

Elevators pitch the airplane about the lateral axis to change the angle of attack.



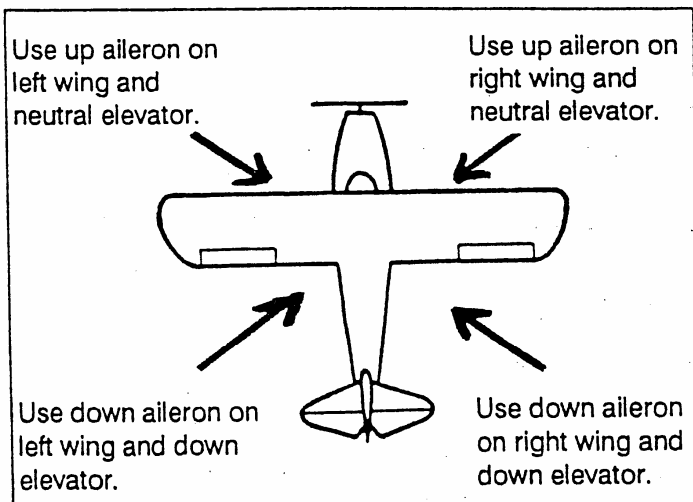
Flight Controls (Cont)

Rudder controls yaw about the vertical axis, not to turn the airplane, but to overcome adverse yaw produced by the depressed aileron on the high wing.

Wing flaps increase drag to increase the angle of descent and allow steeper approaches to a landing without increasing airspeed.

The most dangerous wind while taxiing in a nose-wheel equipped airplane is a quartering tailwind.

Air Density



High temperatures, high elevations, high humidity, and low atmospheric pressure all result in lower air density and decreased performance.

Air that is less dense (higher density altitude) will give you less performance because:

- the wings produce less lift;
- the engine produces less power;
- the propeller exerts less force.

Regardless of altitude and air density, the indicated airspeed at which an airplane stalls and your indicated speed on landing approach will remain the same.

Ground Effect

Ground effect is the result of interference of the earth with airflow patterns about an airplane, and will be realized when you are less than the wingspan above the surface. It causes a decrease in induced drag.

Ground effect allows you to become airborne before reaching recommended takeoff speed. Any excess speed on landing may cause considerable floating.

Stability

Longitudinal stability (the nose pitching up or down) is determined by location of the center of gravity with respect to the center of lift.

An airplane said to be inherently stable will require less effort to control.

An airplane (except T-tail) will pitch nosedown when power is reduced because the downwash on the elevator from the propeller slipstream is reduced and elevator effectiveness is reduced.

AIRCRAFT AND ENGINE OPERATION

'P' Factor And Torque

At high angles of attack, the descending propeller blade has a greater angle of attack than the ascending blade, thus it pulls more and yaws the airplane to the left.

The most torque and P-factor are experienced at high angles of attack, high power settings, and low airspeeds.

Engine Operation

The first action after starting an aircraft engine should be to adjust for proper RPM and check for desired indications on the engine gauges.

When starting an engine by hand, have a competent pilot at the controls in the cockpit.

Dual ignition, in addition to providing an increased safety factor, also provides improved engine performance.

A constant speed propeller permits the pilot to select the blade angle for the most efficient performance. The throttle controls power output as registered on the manifold pressure gauge and the propeller control regulates blade angle to provide a constant RPM. Avoid high manifold pressure setting with low RPM.

Engine cooling is caused by airflow and is especially dependent on the circulation of lubricating oil.

Overheating can be caused by:

- lower than specified fuel octane/rating,
- too high power setting,
- climbing at an excessive rate of climb and insufficient airspeed,
- mixture set too lean, and
- oil level being too low;



Engine Operation (Cont)

Higher temperatures will cause loss of power, excessive oil consumption and possible engine damage.

Detonation occurs when the unburned charge (fuel) in the cylinders explodes instead of burning evenly. If you suspect that the engine is detonating during climb-out, lower the nose to increase airspeed.

Preignition is the uncontrolled firing of the fuel/air charge in advance of normal spark ignition.

While at a high altitude airport and while checking your magnetos, if you notice a roughness in the engine that gets worse when you check carburetor heat, check the results obtained with a leaner mixture setting.

Fuel

Use the correct octane of fuel specified for your aircraft. If the correct octane is not available, a higher octane will not be harmful unless used for a long time.

Make sure there is no water or contamination in the fuel by:

- draining the fuel sumps and the fuel strainer before each flight, and
- filling the tanks after completion of a flight to minimize the possibility of condensation of water on the inner walls of partially filled tanks.

Do not run the fuel tanks dry because the engine-driven fuel pump or electric fuel boost pump may draw air into the fuel system and cause vapor lock.

Float-type carburetor operation is based on the difference in air pressure at the venturi throat and the air inlet.

Fuel (Cont)

The main purpose of the fuel/air mixture control is to decrease the fuel flow to compensate for decreased air density at higher altitudes.

As you climb out to a higher altitude, if no adjustment is made to the mixture, your mixture will become richer.

Induction Icing

Carburetor icing is caused by sudden cooling of the air as it expands in the venturi of the carburetor.

Carburetor icing will most likely occur with temperatures between 20 and 70 degrees F with high relative humidity.

Carb ice reduces the amount of air coming into the carburetor. The indication for an airplane with fixed pitch propeller is the loss of RPM.

When you apply carb heat there will be a drop in RPM. If there is no carb ice, the RPM will remain there. If carb ice is present when you apply carb heat, the RPM will drop then rise as the ice melts.

Carburetor heat reduces the density of the air by heating it, and this makes the mixture richer. It decreases engine output and increases operating temperatures.

Float-type carburetor systems, in comparison to fuel injection systems are considered to be more susceptible to evaporative icing.

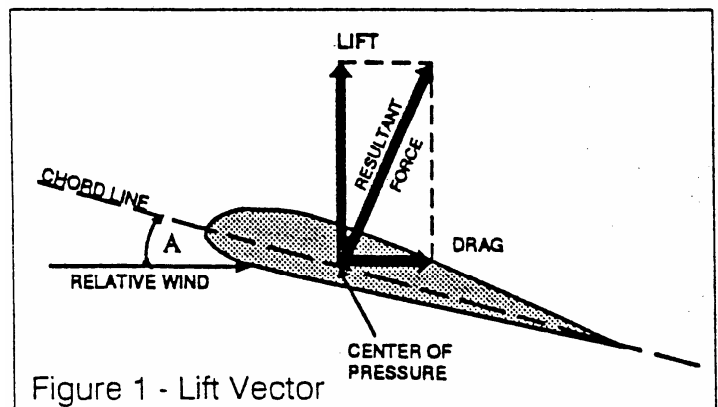
Emergencies And Miscellaneous Information

Perform a walk-around inspection of the aircraft before each flight.

Use a written checklist to ensure that all items are checked in a logical sequence.

If an aircraft has been stored an extended period of time, check for damage or obstructions caused by animals, birds or insects.

If you lose power immediately after takeoff, immediately establish the proper gliding attitude and airspeed.



3201. H911

The four forces acting on an airplane in flight are

- A) lift, weight, thrust, and drag.**
- B) lift, weight, gravity, and thrust.
- C) lift, gravity, power, and friction.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3202. H911

When are the four forces that act on an airplane in equilibrium?

- A)** During unaccelerated flight.
- B) When the aircraft is accelerating.
- C) When the aircraft is at rest on the ground.

3203. H300

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

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

3204. H911

The term 'angle of attack' is defined as the angle

- A)** between the wing chord line and the relative wind.
- B) between the airplane's climb angle and the horizon.
- C) formed by the longitudinal axis of the airplane and the chord line of the wing.

3205. H912

What is the relationship of lift, drag, thrust, and weight when the airplane is in straight-and-level flight?

- A)** Lift equals weight and thrust equals drag.
- B) Lift, drag, and weight equal thrust.
- C) Lift and weight equal thrust and drag.

3207. H920

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.

3208. H920

The left turning tendency of an airplane caused by P-factor is the result of the

- A) clockwise rotation of the engine and the propeller turning the airplane counter-clockwise.
- B)** propeller blade descending on the right, producing more thrust than the ascending blade on the left.
- C) gyroscopic forces applied to the rotating propeller blades acting 90° in advance of the point the force was applied.

3209. H920

When does P-factor cause the airplane to yaw to the left?

- A) When at low angles of attack.
- B)** When at high angles of attack.
- C) When at high airspeeds.

3210. H917

An airplane said to be inherently stable will

- A) be difficult to stall.
- B)** require less effort to control.
- C) not spin.

3211. H917

What determines the longitudinal stability of an airplane?

- A)** The location of the CG with respect to the center of lift.
- B) The effectiveness of the horizontal stabilizer, rudder, and rudder trim tab.
- C) The relationship of thrust and lift to weight and drag.

3212. H917

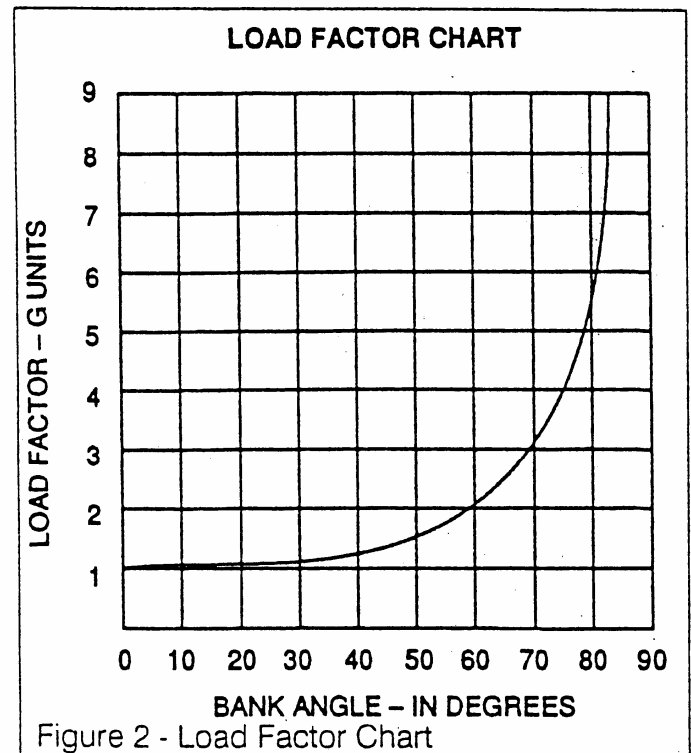
What causes an airplane (except a T-tail) to pitch nosedown when power is reduced and controls are not adjusted?

- A) The CG shifts forward when thrust and drag are reduced.
- B)** The downwash on the elevators from the propeller slipstream is reduced and elevator effectiveness is reduced.
- C) When thrust is reduced to less than weight, lift is also reduced and the wings can no longer support the weight.

3213. H915

What is the purpose of the rudder on an airplane?

- A)** To control yaw.
- B) To control overbanking tendency.
- C) To control roll.



3214. H921

(Refer to figure 2.) If an airplane weighs 2,300 pounds, what approximate weight would the airplane structure be required to support during a 60° banked turn while maintaining altitude?

- A) 2,300 pounds.
- B) 3,400 pounds.
- C)** 4,600 pounds.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3215. H921

(Refer to figure 2.) If an airplane weighs 3,300 pounds, what approximate weight would the airplane structure be required to support during a 30° banked turn while maintaining altitude?

- A) 1,200 Pounds
- B) 3,100 Pounds
- C) 3,960 Pounds**

3216. H921

(Refer to figure 2.) If an airplane weighs 4,500 pounds, what approximate weight would the airplane structure be required to support during a 45° banked turn while maintaining altitude?

- A) 4,500 Pounds
- B) 6,750 Pounds**
- C) 7,200 Pounds

3217. H921

The amount of excess load that can be imposed on the wing of an airplane depends upon the

- A) position of the CG.
- B) speed of the airplane.**
- C) abruptness at which the load is applied.

3218. H303

Which basic flight maneuver increases the load factor on an airplane as compared to straight-and-level flight?

- A) Climbs.
- B) Turns.**
- C) Stalls.

3219. H926

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

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

3220.

What is one purpose of wing flaps?

- A) To enable the pilot to make steeper approaches to a landing without increasing the airspeed**
- B) To relieve the pilot of maintaining continuous pressure on the controls.
- C) To decrease wing area to vary the lift.

3221. H928

Excessively high engine temperatures will

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

3222. H928

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

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

3223. H928

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

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

3224. H928

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

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

3225. H927

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

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

3226. H928

The basic purpose of adjusting the fuel/air mixture at altitude is to

- A) decrease the amount of fuel in the mixture in order to compensate for increased air density.
- B) decrease the fuel flow in order to compensate for decreased air density.**
- C) increase the amount of fuel in the mixture to compensate for the decrease in pressure and density of the air.

3227. H928

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

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3228. H927

While cruising at 9,500 feet MSL, the fuel/air mixture is properly adjusted. What will occur if a descent to 4,500 feet MSL is made without readjusting the mixture?

- A)** The fuel/air mixture may become excessively lean.
- B) There will be more fuel in the cylinders than is needed for normal combustion, and the excess fuel will absorb heat and cool the engine.
- C) The excessively rich mixture will create higher cylinder head temperatures and may cause detonation.

3229. H927

Which condition is most favorable to the development of carburetor icing?

- A) Any temperature below freezing and a relative humidity of less than 50 percent.
- B) Temperature between 32 and 50 °F and low humidity.
- C)** Temperature between 20 and 70 °F and high humidity.

3230. H927

The possibility of carburetor icing exists even when the ambient air temperature is as

- A)** high as 70 °F and the relative humidity is high
- B) high as 95 °F and there is visible moisture
- C) low as 0 °F and the relative humidity is high

3231. H927

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

3232. H927

Applying carburetor heat will

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

3233. H927

What change occurs in the fuel/air mixture when carburetor heat is applied?

- A) A decrease in RPM results from the lean mixture.
- B)** The fuel/air mixture becomes richer.
- C) The fuel/air mixture becomes leaner.

3234. H927

Generally speaking, the use of carburetor heat tends to

- A)** decrease engine performance.
- B) increase engine performance.
- C) have no effect on engine performance.

3235. H928

The presence of carburetor ice in an aircraft equipped with a fixed-pitch propeller can be verified by applying carburetor heat and noting

- A) an increase in RPM and then a gradual decrease in RPM.
- B) a decrease in RPM and then a constant RPM indication.
- C)** a decrease in RPM and then a gradual increase in RPM.

3236. H307

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.

3237. H928

If the grade of fuel used in an aircraft engine is lower than specified for the engine, it will most likely cause

- A) a mixture of fuel and air that is not uniform in all cylinders.
- B) lower cylinder head temperatures.
- C)** detonation.

3238. H928

Detonation occurs in a reciprocating aircraft engine when

- A) the spark plugs are fouled or shorted out or the wiring is defective.
- B) hot spots in the combustion chamber ignite the fuel/air mixture in advance of normal ignition.
- C)** the unburned charge in the cylinders explodes instead of burning normally.

3239. H928

If a pilot suspects that the engine (with a fixed-pitch propeller) is detonating during climb-out after takeoff, the initial corrective action to take would be to

- A) lean the mixture.
- B)** lower the nose slightly to increase airspeed.
- C) apply carburetor heat.

3240. H928

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

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

3241. H928

Which would most likely cause the cylinder head temperature and engine oil temperature gauges to exceed their normal operating ranges?

- A)** Using fuel that has a lower-than-specified fuel rating.
- B) Using fuel that has a higher-than-specified fuel rating.
- C) Operating with higher-than-normal oil pressure.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3242. H927

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

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

3243. H927

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 expansion of the fuel by eliminating airspace in the tanks.
- C) prevent moisture condensation by eliminating airspace in the tanks.

3244. H928

For internal cooling, reciprocating aircraft engines are especially dependent on

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

3245. H928

An abnormally high engine oil temperature indication may be caused by

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

3246. H928

What effect does high density altitude, as compared to low density altitude, have on propeller efficiency and why?

- A) Efficiency is increased due to less friction on the propeller blades.
- B) Efficiency is reduced because the propeller exerts less force at high density altitudes than at low density altitudes.**
- C) Efficiency is reduced due to the increased force of the propeller in the thinner air.

3263. H312

As altitude increases, the indicated airspeed at which a given airplane stalls in a particular configuration will

- A) decrease as the true airspeed decreases.
- B) decrease as the true airspeed increases.
- C) remain the same regardless of altitude.

3290. H317

Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- A) Low temperature, low relative humidity, and low density altitude.
- B) High temperature, low relative humidity, and low density altitude.
- C) High temperature, high relative humidity, and high density altitude.**

3301. H911

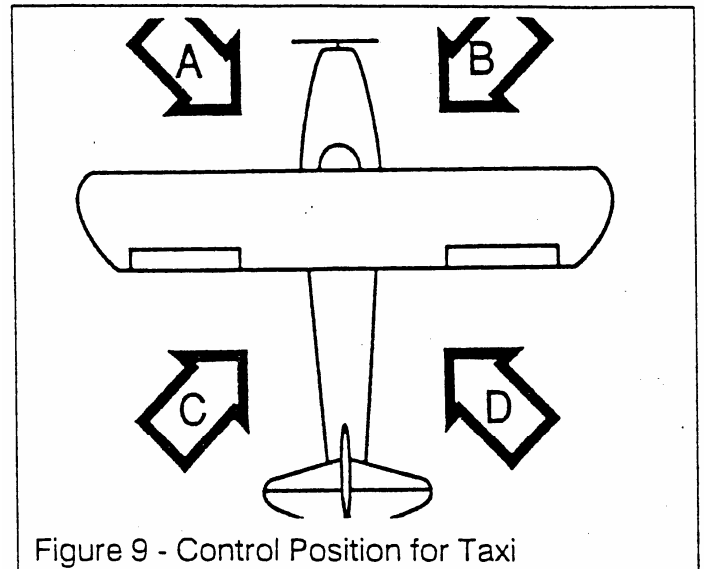
What force makes an airplane turn?

- A) The horizontal component of lift.**
- B) The vertical component of lift.
- C) Centrifugal force.

3302. H516

When taxiing with strong quartering tailwinds, which aileron positions should be used?

- A) Aileron down on the downwind side.
- B) Ailerons neutral.
- C) Aileron down on the side from which the wind is blowing.**



3303.

Which aileron positions should a pilot generally use when taxiing in strong quartering headwinds.

- A) Aileron up on the side from which the wind is blowing.**
- B) Aileron down on the side from which the wind is blowing.
- C) Ailerons Neutral.

3304.

Which wind condition would be most critical when taxiing a nosewheel equipped high-wing airplane.

- A) Quartering tailwind.**
- B) Direct crosswind.
- C) Quartering heading..

3305. H516

(Refer to figure 9, area A.) How should the flight controls be held while taxiing a tricycle-gear equipped airplane into a left quartering headwind?

- A) Left aileron up, elevator neutral.**
- B) Left aileron down, elevator neutral.
- C) Left aileron up, elevator down.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3306.

(Refer to figure 9, area B.) How should the flight controls be held while taxiing a tailwheel airplane into a right quartering headwind?

- A) Right aileron up, elevator up.
- B) Right aileron down, elevator neutral.
- C) Right aileron up, elevator down.

3307.

(Refer to figure 9, area C.) How should the flight controls be held while taxiing a tailwheel airplane with a left quartering tailwind?

- A) Left aileron up, elevator neutral.
- B) Left aileron down, elevator neutral.**
- C) Left aileron up, elevator down.

3308.

(Refer to figure 9, area C) How should the flight control be held while taxiing tricycle-gear equipped airplane with a left quartering tailwind?

- A) Left aileron up, elevator neutral.
- B) Left aileron down, elevator down.**
- C) Left aileron up, elevator down.

3309. H540

In what flight condition must an aircraft be placed in order to spin?

- A) Partially stalled with one wing low.
- B) In a steep diving spiral.
- C) Stalled.**

3310. H540

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

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

3311. H919

The angle of attack at which an airplane wing stalls will

- A) increase if the CG is moved forward.
- B) change with an increase in gross weight.
- C) remain the same regardless of gross weight.**

3312. H945

What is ground effect?

- A) The result of the interference of the surface of the Earth with the airflow patterns about an airplane.**
- B) The result of an alteration in airflow patterns increasing induced drag about the wings of an airplane.
- C) The result of the disruption of the airflow patterns about the wings of an airplane to the point where the wings will no longer support the airplane in flight.

3313.

Float caused by the phenomenon ground effect will be most realized during an approach to land when at

- A) less than the length of the wingspan above the surface.**
- B) twice the length of the wingspan above the surface
- C) a higher-than-normal angle of attack.

3314.

What must a pilot be aware of as a result of ground effect?

- A) Wingtip vortices increase creating wake turbulence problems for arriving and departing aircraft.
- B) Induced drag decreases; therefore, any excess speed at the point of flare may cause considerable floating.**
- C) A full stall landing will require less up elevator deflection than would a full stall when done free of ground effect.

3315.

Ground effect is most likely to result in which problem?

- A) Settling to the surface abruptly during landing.
- B) Becoming airborne before reaching recommended takeoff speed.**
- C) Inability to get airborne even though airspeed is sufficient for normal takeoff needs.

3316. H921

During an approach to a stall, an increased load factor will cause the airplane to

- A) stall at a higher airspeed.**
- B) have a tendency to spin.
- C) be more difficult to control.

3317. H702

Angle of attack is defined as the angle between the chord line of an airfoil and the

- A) direction of the relative wind.**
- B) pitch angle of an airfoil.
- C) rotor plane of rotation.

3651. H928

What action can a pilot take to aid in cooling an engine that is overheating during a climb?

- A) Reduce rate of climb and increase airspeed.**
- B) Reduce climb speed and increase RPM.
- C) Increase climb speed and increase RPM.

3652. H928

What is one procedure to aid in cooling an engine that is overheating?

- A) Enrichen the fuel mixture.**
- B) Increase the RPM.
- C) Reduce the airspeed.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC



3653. H928

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

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

3654. H928

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.

3655. H928

A precaution for the operation of an engine equipped with a constant-speed propeller is to

- A) avoid high RPM settings with high manifold pressure.
- B)** avoid high manifold pressure settings with low RPM.
- C) always use a rich mixture with high RPM settings.

3656. H928

What should be the first action after starting an aircraft engine?

- A)** Adjust for proper RPM and check for desired indications on the engine gauges.
- B) Place the magneto or ignition switch momentarily in the OFF position to check for proper grounding.
- C) Test each brake and the parking brake.

3657. H309

Should it become necessary to handprop an airplane engine, it is extremely important that a competent pilot

- A) call 'contact' before touching the propeller.
- B)** be at the controls in the cockpit.
- C) be in the cockpit and call out all commands.

3658. H937

In regard to preflighting an aircraft, what is the minimum expected of a pilot prior to every flight?

- A) Drain fuel from each quick drain.
- B)** Perform a walk-around inspection of the aircraft.
- C) Check the required documents aboard the aircraft.

3659. H937

Why is the use of a written checklist recommended for preflight inspection and engine start?

- A)** To ensure that all necessary items are checked in a logical sequence.
- B) For memorizing the procedures in an orderly sequence.
- C) To install confidence in the passengers.

3660.

What special check should be made on an aircraft during preflight after it has been stored an extended period of time?

- A) ELT batteries and operation.
- B) Condensation in the fuel tanks.
- C)** Damage or obstructions caused by animals, birds or insects.

3308-1 H557 PVT **NEW QUESTION**

To minimize the side loads placed on the landing gear during touchdown, the pilot should keep the

- A) direction of motion of the aircraft parallel to the runway.
- B)** longitudinal axis of the aircraft parallel to the direction of its motion.
- C) downwind wing lowered sufficiently to eliminate the tendency for the aircraft to drift.

2005.766. H545 PVT **NEW QUESTION**

(Refer to figure 63.) In flying the rectangular course, when would the aircraft be turned less than 90°?

- A)** Corners 1 and 4.
- B) Corners 1 and 2.
- C) Corners 2 and 4.

772. H545 PVT

(Refer to figure 67.) While practicing S-turns, a consistently smaller half-circle is made on one side of the road than on the other, and this turn is not completed before crossing the road or reference line. This would most likely occur in turn

- A) 1-2-3 because the bank is decreased too rapidly during the latter part of the turn.
- B)** 4-5-6 because the bank is increased too rapidly during the early part of the turn.
- C) 4-5-6 because the bank is increased too slowly during the latter part of the turn.

2005.805. H583 PVT **NEW QUESTION**

When executing an emergency approach to land in a single-engine airplane, it is important to maintain a constant glide speed because variations in glide speed

- A) increase the chances of shock cooling the engine.
- B) increase the airplane's rate of descent and decrease gliding distance.
- C)** nullify all attempts at accuracy in judgment of gliding distance and landing spot.

NOTE: CORRECT ANSWER IS IN BOLD ITALIC