

TEMA: 0159 COMMERCIAL PILOT - (CH. 6) WEATHER

COD_PREG: PREGUNTA: **RPTA:**
PREG20080349 What determines the structure or type of clouds which will form as a result of air being forced to ascend? B
OPCION A: The method by which the air is lifted.
OPCION B: The stability of the air before lifting occurs.
OPCION C: The relative humidity of the air after lifting occurs.
OPCION D:

PREG20080383 Of the following, which is accurate regarding turbulence associated with thunderstorms? C
OPCION A: Outside the cloud, shear turbulence can be encountered 50 miles laterally from a severe storm.
OPCION B: Shear turbulence is encountered only inside cumulonimbus clouds or within a 5-mile radius of them.
OPCION C: Outside the cloud, shear turbulence can be encountered 20 miles laterally from a severe storm.
OPCION D:

PREG20080350 Refer to the excerpt from the following METAR report: B
KTUS.....08004KT 4SM HZ.....26/04 A2995 RMK RAE36
At approximately what altitude AGL should bases of convective-type cumuliform clouds be expected?
OPCION A: 4,400 feet.
OPCION B: 8,800 feet.
OPCION C: 17,600 feet.
OPCION D:

PREG20080351 What are the characteristics of stable air? B
OPCION A: Good visibility; steady precipitation; stratus clouds.
OPCION B: Poor visibility; steady precipitation; stratus clouds.
OPCION C: Poor visibility; intermittent precipitation; cumulus clouds.
OPCION D:

PREG20080352 Which would decrease the stability of an air mass? A
OPCION A: Warming from below.
OPCION B: Cooling from below.
OPCION C: Decrease in water vapor.
OPCION D:

PREG20080353 From which measurement of the atmosphere can stability be determined? B
OPCION A: Atmospheric pressure.

OPCION B: The ambient lapse rate.
OPCION C: The dry adiabatic lapse rate.
OPCION D:

PREG20080354 What type weather can one expect from moist, unstable air, and very warm surface temperatures? C

OPCION A: Fog and low stratus clouds.
OPCION B: Continuous heavy precipitation.
OPCION C: Strong updrafts and cumulonimbus clouds.
OPCION D:

PREG20080355 Which would increase the stability of an air mass? B

OPCION A: Warming from below.
OPCION B: Cooling from below.
OPCION C: Decrease in water vapor.
OPCION D:

PREG20080356 The conditions necessary for the formation of stratiform clouds are a lifting action and B

OPCION A: unstable, dry air.
OPCION B: stable, moist air.
OPCION C: unstable, moist air.
OPCION D:

PREG20080357 Which cloud types would indicate convective turbulence? C

OPCION A: Cirrus clouds.
OPCION B: Nimbostratus clouds.
OPCION C: Towering cumulus clouds.
OPCION D:

PREG20080358 The presence of standing lenticular altocumulus clouds is a good indication of B

OPCION A: lenticular ice formation in calm air.
OPCION B: very strong turbulence.
OPCION C: heavy icing conditions.
OPCION D:

PREG20080359 The formation of either predominantly stratiform or predominantly cumuliform clouds is dependent upon the B

OPCION A: source of lift.
OPCION B: stability of the air being lifted.
OPCION C: temperature of the air being lifted.
OPCION D:

PREG20080360	Which combination of weather-producing variables would likely result in cumuliform-type clouds, good visibility, and showery rain?	B
OPCION A:	Stable, moist air and orographic lifting.	
OPCION B:	Unstable, moist air and orographic lifting.	
OPCION C:	Unstable, moist air and no lifting mechanism.	
OPCION D:		

PREG20080361	What is a characteristic of stable air?	A
OPCION A:	Stratiform clouds.	
OPCION B:	Fair weather cumulus clouds.	
OPCION C:	Temperature decreases rapidly with altitude.	
OPCION D:		

PREG20080362	A moist, unstable air mass is characterized by	B
OPCION A:	poor visibility and smooth air.	
OPCION B:	cumuliform clouds and showery precipitation.	
OPCION C:	stratiform clouds and continuous precipitation.	
OPCION D:		

PREG20080363	When an air mass is stable, which of these conditions are most likely to exist?	C
OPCION A:	Numerous towering cumulus and cumulonimbus clouds.	
OPCION B:	Moderate to severe turbulence at the lower levels.	
OPCION C:	Smoke, dust, haze, etc., concentrated at the lower levels with resulting poor visibility.	
OPCION D:		

PREG20080364	Which is a characteristic of stable air?	C
OPCION A:	Cumuliform clouds.	
OPCION B:	Excellent visibility.	
OPCION C:	Restricted visibility.	
OPCION D:		

PREG20080365	Which is a characteristic typical of a stable air mass?	C
OPCION A:	Cumuliform clouds.	
OPCION B:	Showery precipitation.	
OPCION C:	Continuous precipitation.	
OPCION D:		

PREG20080366	Which is true regarding a cold front occlusion? The air ahead of the warm front	B
OPCION A:	is colder than the air behind the overtaking cold front.	
OPCION B:	is warmer than the air behind the overtaking cold front.	
OPCION C:	has the same temperature as the air behind the overtaking cold front.	

OPCION D:

- PREG20080367 Which are characteristics of a cold air mass moving over a warm surface? B
- OPCION A:** Cumuliform clouds, turbulence, and poor visibility.
- OPCION B:** Cumuliform clouds, turbulence, and good visibility.
- OPCION C:** Stratiform clouds, smooth air, and poor visibility.
- OPCION D:**
-

- PREG20080368 The conditions necessary for the formation of cumulonimbus clouds are a lifting action and C
- OPCION A:** unstable, dry air.
- OPCION B:** stable, moist air.
- OPCION C:** unstable, moist air.
- OPCION D:**
-

- PREG20080369 Fog produced by frontal activity is a result of saturation due to C
- OPCION A:** nocturnal cooling.
- OPCION B:** adiabatic cooling.
- OPCION C:** evaporation of precipitation.
- OPCION D:**
-

- PREG20080370 What is an important characteristic of wind shear? C
- OPCION A:** It is present at only lower levels and exists in a horizontal direction.
- OPCION B:** It is present at any level and exists in only a vertical direction.
- OPCION C:** It can be present at any level and can exist in both a horizontal and vertical direction.
- OPCION D:**
-

- PREG20080371 Hazardous wind shear is commonly encountered C
- OPCION A:** near warm or stationary frontal activity.
- OPCION B:** when the wind velocity is stronger than 35 knots.
- OPCION C:** in areas of temperature inversion and near thunderstorms.
- OPCION D:**
-

- PREG20080372 Low-level wind shear may occur when B
- OPCION A:** surface winds are light and variable.
- OPCION B:** there is a low-level temperature inversion with strong winds above the inversion.
- OPCION C:** surface winds are above 15 knots and there is no change in wind direction and windspeed with height.
- OPCION D:**
-

- PREG20080373 If a temperature inversion is encountered immediately after takeoff or during an approach to a landing, a potential hazard exists due to A

- OPCION A:** wind shear.
OPCION B: strong surface winds.
OPCION C: strong convective currents.
OPCION D:
-

PREG20080374 GIVEN: A

Winds at 3,000 feet AGL 30 kts
Surface winds Calm

While on approach for landing under clear skies with convective turbulence a few hours after sunrise, one should

- OPCION A:** increase approach airspeed slightly above normal to avoid stalling.
OPCION B: keep the approach airspeed at or slightly below normal to compensate for floating.
OPCION C: not alter the approach airspeed, these conditions are nearly ideal.
OPCION D:
-

PREG20080375 Convective currents are most active on warm summer afternoons when winds are A

- OPCION A:** light.
OPCION B: moderate.
OPCION C: strong.
OPCION D:
-

PREG20080376 When flying low over hilly terrain, ridges, or mountain ranges, the greatest potential danger from turbulent air currents will usually be encountered on the B

- OPCION A:** leeward side when flying with a tailwind.
OPCION B: leeward side when flying into the wind.
OPCION C: windward side when flying into the wind.
OPCION D:
-

PREG20080377 During an approach, the most important and most easily recognized means of being alerted to possible wind shear is monitoring the C

- OPCION A:** amount of trim required to relieve control pressures.
OPCION B: heading changes necessary to remain on the runway centerline.
OPCION C: power and vertical velocity required to remain on the proper glidepath.
OPCION D:
-

PREG20080378 During departure, under conditions of suspected low-level wind shear, a sudden decrease in headwind will cause A

- OPCION A:** a loss in airspeed equal to the decrease in wind velocity.
OPCION B: a gain in airspeed equal to the decrease in wind velocity.
OPCION C: no change in airspeed, but groundspeed will decrease.
OPCION D:
-

PREG20080379 Which situation would most likely result in freezing precipitation? Rain falling from air which has a temperature of C

OPCION A: 32°F or less into air having a temperature of more than 32°F.

OPCION B: 0°C or less into air having a temperature of 0°C or more.

OPCION C: more than 32°F into air having temperature of 32°F or less.

OPCION D:

PREG20080380 Which statement is true concerning the hazards of hail? C

OPCION A: Hail damage in horizontal flight is minimal due to the vertical movement of hail in the clouds.

OPCION B: Rain at the surface is a reliable indication of no hail aloft.

OPCION C: Hailstones may be encountered in clear air several miles from a thunderstorm.

OPCION D:

PREG20080381 Hail is most likely to be associated with B

OPCION A: cumulus clouds.

OPCION B: cumulonimbus clouds.

OPCION C: stratocumulus clouds.

OPCION D:

PREG20080382 The most severe weather conditions, such as destructive winds, heavy hail, and tornadoes, are generally associated with B

OPCION A: slow-moving warm fronts which slope above the tropopause.

OPCION B: squall lines.

OPCION C: fast-moving occluded fronts.

OPCION D:

PREG20080384 If airborne radar is indicating an extremely intense thunderstorm echo, this thunderstorm should be avoided by a distance of at least A

OPCION A: 20 miles.

OPCION B: 10 miles.

OPCION C: 5 miles.

OPCION D:

PREG20080385 Which statement is true regarding squall lines? C

OPCION A: They are always associated with cold fronts.

OPCION B: They are slow in forming, but rapid in movement.

OPCION C: They are nonfrontal and often contain severe, steady-state thunderstorms.

OPCION D:

PREG20080386 Which statement is true concerning squall lines? C

OPCION A: They form slowly, but move rapidly.

OPCION B: They are associated with frontal systems only.

OPCION C: They offer the most intense weather hazards to aircraft.

OPCION D:

- PREG20080387 Select the true statement pertaining to the life cycle of a thunderstorm. B
- OPCION A:** Updrafts continue to develop throughout the dissipating stage of a thunderstorm.
- OPCION B:** The beginning of rain at the Earth's surface indicates the mature stage of the thunderstorm.
- OPCION C:** The beginning of rain at the Earth's surface indicates the dissipating stage of the thunderstorm.
- OPCION D:**
-

- PREG20080388 What visible signs indicate extreme turbulence in the thunderstorms? C
- OPCION A:** Base of the clouds near the surface, heavy rain, and hail.
- OPCION B:** Low ceiling and visibility, hail, and precipitation static.
- OPCION C:** Cumulonimbus clouds, very frequent lightning, and roll clouds.
- OPCION D:**
-

- PREG20080389 Which weather phenomenon signals the beginning of the mature stage of a thunderstorm? A
- OPCION A:** The start of rain.
- OPCION B:** The appearance of an anvil top.
- OPCION C:** Growth rate of clouds is maximum.
- OPCION D:**
-

- PREG20080390 What feature is normally associated with the cumulus stage of a thunderstorm? B
- OPCION A:** Roll cloud.
- OPCION B:** Continuous updraft.
- OPCION C:** Beginning of rain at the surface.
- OPCION D:**
-

- PREG20080391 During the life cycle of a thunderstorm, which stage is characterized predominately by downdrafts? C
- OPCION A:** Mature.
- OPCION B:** Developing.
- OPCION C:** Dissipating.
- OPCION D:**
-

- PREG20080392 What minimum distance should exist between intense radar echoes before any attempt is made to fly between these thunderstorms? C
- OPCION A:** 20 miles.
- OPCION B:** 30 miles.
- OPCION C:** 40 miles.
- OPCION D:**
-

PREG20080393 Which in-flight hazard is most commonly associated with warm fronts? C

OPCION A: Advection fog.

OPCION B: Radiation fog.

OPCION C: Precipitation-induced fog.

OPCION D:

PREG20080394 Which is true regarding the use of airborne weather-avoidance radar for the recognition of certain weather conditions? A

OPCION A: The radarscope provides no assurance of avoiding instrument weather conditions.

OPCION B: The avoidance of hail is assured when flying between and just clear of the most intense echoes.

OPCION C: The clear area between intense echoes indicates that visual sighting of storms can be maintained when flying between the echoes.

OPCION D:

PREG20080395 A situation most conducive to the formation of advection fog is B

OPCION A: a light breeze moving colder air over a water surface.

OPCION B: an air mass moving inland from the coastline during the winter.

OPCION C: a warm, moist air mass settling over a cool surface under no-wind conditions.

OPCION D:

PREG20080396 Advection fog has drifted over a coastal airport during the day. What may tend to dissipate or lift this fog into low stratus clouds? C

OPCION A: Nighttime cooling.

OPCION B: Surface radiation.

OPCION C: Wind 15 knots or stronger.

OPCION D:

PREG20080397 What lifts advection fog into low stratus clouds? C

OPCION A: Nighttime cooling.

OPCION B: Dryness of the underlying land mass.

OPCION C: Surface winds of approximately 15 knots or stronger.

OPCION D:

PREG20080398 In what ways do advection fog, radiation fog, and steam fog differ in their formation or location? A

OPCION A: Radiation fog is restricted to land areas; advection fog is most common along coastal areas; steam fog forms over a water surface.

OPCION B: Advection fog deepens as windspeed increases up to 20 knots; steam fog requires calm or very light wind; radiation fog forms when the ground or water cools the air by radiation.

OPCION C: Steam fog forms from moist air moving over a colder surface; advection fog requires cold air over a warmer surface; radiation fog is produced by radiational cooling of the ground.

OPCION D:

PREG20080399 With respect to advection fog, which statement is true? C

OPCION A: It is slow to develop, and dissipates quite rapidly.

OPCION B: It forms almost exclusively at night or near daybreak.

OPCION C: It can appear suddenly during day or night, and it is more persistent than radiation fog.

OPCION D:

PREG20080400 Which feature is associated with the tropopause? B

OPCION A: Constant height above the Earth.

OPCION B: Abrupt change in temperature lapse rate.

OPCION C: Absolute upper limit of cloud formation.

OPCION D:

PREG20080401 A common location of clear air turbulence is A

OPCION A: in an upper trough on the polar side of a jet stream.

OPCION B: near a ridge aloft on the equatorial side of a high-pressure flow.

OPCION C: south of an east/west oriented high-pressure ridge in its dissipating stage.

OPCION D:

PREG20080402 The jet stream and associated clear and air turbulence can sometimes be visually identified in flight by B

OPCION A: dust or haze at flight level.

OPCION B: long streaks or cirrus clouds.

OPCION C: a constant outside air temperature.

OPCION D:

PREG20080403 During the winter months in the middle latitudes, the jet stream shifts toward the B

OPCION A: north and speed decreases.

OPCION B: south and speed increases.

OPCION C: north and speed increases.

OPCION D:

PREG20080404 The strength and location of the jet stream is normally A

OPCION A: weaker and farther north in the summer.

OPCION B: stronger and farther north in the winter.

OPCION C: stronger and farther north in the summer.

OPCION D:

PREG20080405 The conditions most favorable to wave formation over mountainous areas are a layer of A

OPCION A: stable air at mountaintop altitude and a wind of at least 20 knots blowing across the ridge.

OPCION B: unstable air at mountaintop altitude and a wind of at least 20 knots blowing across the ridge.

OPCION C: moist, unstable air at mountaintop altitude and a wind of less than 5 knots blowing across the ridge.

OPCION D:

PREG20080406 Which type of jetstream can be expected to cause the greater turbulence? B

OPCION A: A straight jetstream associated with a low-pressure trough.

OPCION B: A curving associated with a deep low-pressure trough.

OPCION C: A jetstream occurring during the summer at the lower latitudes.

OPCION D:

PREG20080407 A strong wind shear can be expected C

OPCION A: in the jetstream front above a core having a speed of 60 to 90 knots.

OPCION B: if the 5°C isotherms are spaced between 7° to 10° of latitude.

OPCION C: on the low-pressure side of a jetstream core where the speed at the core is stronger than 110 knots.

OPCION D:

PREG20080408 One of the most dangerous features of mountain waves is the turbulent areas in and A

OPCION A: below rotor clouds.

OPCION B: above rotor clouds.

OPCION C: below lenticular clouds.

OPCION D:

PREG20080409 Frost covering the upper surface of an airplane wing usually will cause B

OPCION A: the airplane to stall at an angle of attack that is higher than normal.

OPCION B: the airplane to stall at an angle of attack that is lower than normal.

OPCION C: drag factors so large that sufficient speed cannot be obtained for takeoff.

OPCION D:

PREG20080332 Every physical process of weather is accompanied by or is the result of A

OPCION A: a heat exchange.

OPCION B: the movement of air.

OPCION C: a pressure differential.

OPCION D:

PREG20080333 Which conditions are favorable for the formation of a surface based A
temperature inversion?

OPCION A: Clear, cool nights with calm or light wind.

OPCION B: Area of unstable air rapidly transferring heat from the surface.

OPCION C: Broad areas of cumulus clouds with smooth, level bases at the same altitude.

OPCION D:

PREG20080334 What causes wind? C

OPCION A: The Earth's rotation.

OPCION B: Air mass modification.

OPCION C: Pressure differences.

OPCION D:

PREG20080335 Why does the wind have a tendency to flow parallel to the isobars above the friction level? A

OPCION A: Coriolis force tends to counterbalance the horizontal pressure gradient.

OPCION B: Coriolis force acts perpendicular to a line connecting the highs and lows.

OPCION C: Friction of the air with the Earth deflects the air perpendicular to the pressure gradient.

OPCION D:

PREG20080336 With regard to windflow patterns shown on surface analysis charts; when the isobars are C

OPCION A: close together, the pressure gradient force is slight and wind velocities are weaker.

OPCION B: not close together, the pressure gradient force is greater and wind velocities are stronger.

OPCION C: close together, the pressure gradient force is greater and wind velocities are stronger.

OPCION D:

PREG20080337 What prevents air from flowing directly from high-pressure areas to low-pressure areas? A

OPCION A: Coriolis force.

OPCION B: Surface friction.

OPCION C: Pressure gradient force.

OPCION D:

PREG20080338 Which is true with respect to a high- or low-pressure system? C

OPCION A: A high-pressure area or ridge is an area of rising air.

OPCION B: A low-pressure area or trough is an area of descending air.

OPCION C: A high-pressure area or ridge is an area of descending air.

OPCION D:

PREG20080339 Which is true regarding high- or low-pressure systems? B

OPCION A: A high-pressure area or ridge is an area of rising air.

OPCION B: A low-pressure area or trough is an area of rising air.

OPCION C: Both high- and low-pressure areas are characterized by descending air.

OPCION D:

PREG20080340	Which is true regarding actual air temperature and dewpoint temperature spread? The temperature spread	B
OPCION A:	decreases as the relative humidity decreases.	
OPCION B:	decreases as the relative humidity increases.	
OPCION C:	increases as the relative humidity increases.	
OPCION D:		

PREG20080341	Virga is best described as	A
OPCION A:	streamers of precipitation trailing beneath clouds which evaporates before reaching the ground.	
OPCION B:	wall cloud torrents trailing beneath cumulonimbus clouds which dissipate before reaching the ground.	
OPCION C:	turbulent areas beneath cumulonimbus clouds.	
OPCION D:		

PREG20080342	Moisture is added to a parcel of air by	C
OPCION A:	sublimation and condensation.	
OPCION B:	evaporation and condensation.	
OPCION C:	evaporation and sublimation.	
OPCION D:		

PREG20080343	Ice pellets encountered during flight normally are evidence that	B
OPCION A:	a warm front has passed.	
OPCION B:	a warm front is about to pass.	
OPCION C:	there are thunderstorms in the area.	
OPCION D:		

PREG20080344	What is indicated if ice pellets are encountered at 8,000 feet?	A
OPCION A:	Freezing rain at higher altitude.	
OPCION B:	You are approachig an area of thunderstorms.	
OPCION C:	You will encounter hail if you continue your flight.	
OPCION D:		

PREG20080345	Ice pellets encountered during flight are normally evidence that	C
OPCION A:	a cold front has passed.	
OPCION B:	there are thunderstorms in the area.	
OPCION C:	freezing rain exists at hiher altitudes.	
OPCION D:		

PREG20080346	When conditionally unstable air with high-moisture content and very warm surface temperature is forecast, one can expect what type of weather?	C
OPCION A:	Strong updrafts and stratonimbus clouds.	
OPCION B:	Restricted visibility near the surface over a large area.	
OPCION C:	Strong updrafts and cumulonimbus clouds.	

OPCION D:

PREG20080347 What is the approximate base of the cumulus clouds if the temperature at 2,000 feet MSL is 10°C and the dewpoint is 1°C? C

OPCION A: 3,000 feet MSL.

OPCION B: 4,000 feet MSL.

OPCION C: 6,000 feet MSL.

OPCION D:

PREG20080348 If clouds form as a result of very stable, moist air being forced to ascend a mountain slope, the clouds will be C

OPCION A: cirrus type with no vertical development or turbulence.

OPCION B: cumulus type with considerable vertical development and turbulence.

OPCION C: stratus type with little vertical development and little or no turbulence.

OPCION D:
