

**TEMA:** 0643 COM-RTC - Weather - Chap. 6

**COD PREG:** PREG20098631  
**PREGUNTA:** The conditions necessary for the formation of cumulonimbus clouds are a lifting action and  
**RPTA:** C  
**OPCION A:** unstable, dry air.  
**OPCION B:** stable, moist air.  
**OPCION C:** unstable, moist air.

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PREG20098634 Hazardous wind shear is commonly encountered  
**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.

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PREG20098632 Fog produced by frontal activity is a result of saturation due to  
**OPCION A:** nocturnal cooling.  
**OPCION B:** adiabatic cooling.  
**OPCION C:** evaporation of precipitation.

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PREG20098635 Low-level wind shear may occur when  
**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.

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PREG20098626 When an air mass is stable, which of these conditions are most likely to exist?  
**OPCION A:** Numerous towering cumulus and cumulonimbus clouds.  
**OPCION B:** Moderate to severe turbulence at the tower levels.  
**OPCION C:** Smoke, dust, haze, etc., concentrated at the lower levels with resulting poor visibility.

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PREG20098629 Which is true regarding a cold front occlusion? The air ahead of the warm front  
**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.

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PREG20098628 Which is a characteristic typical of a stable air mass?  
**OPCION A:** Cumuliform clouds.  
**OPCION B:** Showery precipitation.  
**OPCION C:** Continuous precipitation.

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PREG20098627	Which is a characteristic of stable air?	C
<b>OPCION A:</b>	Cumuliform clouds.	
<b>OPCION B:</b>	Excellent visibility.	
<b>OPCION C:</b>	Restricted visibility.	

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PREG20098636	If a temperature inversion is encountered immediately after takeoff or during an approach to a landing, a potential hazard exists due	A
<b>OPCION A:</b>	wind shear.	
<b>OPCION B:</b>	strong surface winds.	
<b>OPCION C:</b>	strong convective winds.	

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PREG20098630	Which are characteristics of a cold air mass moving over a warm surface?	B
<b>OPCION A:</b>	Cumuliform clouds, turbulence and poor visibility	
<b>OPCION B:</b>	Cumuliform clouds, turbulence, and good visibility	
<b>OPCION C:</b>	Stratiform clouds, smooth air, and poor visibility	

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PREG20098637	Convective currents are most active on warm summer afternoons when winds are	A
<b>OPCION A:</b>	light.	
<b>OPCION B:</b>	moderate.	
<b>OPCION C:</b>	strong.	

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PREG20098646	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
<b>OPCION A:</b>	Nighttime cooling.	
<b>OPCION B:</b>	Surface radiation.	
<b>OPCION C:</b>	Wind 15 knots or stronger.	

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PREG20098639	During an approach, the most important and most easily recognized means of being alerted to possible wind shear is monitoring the	C
<b>OPCION A:</b>	amount of trim required to relieve control pressures.	
<b>OPCION B:</b>	heading changes necessary to remain on the runway centerline.	
<b>OPCION C:</b>	power and vertical velocity required to remain on the proper glidepath.	

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PREG20098649	One of the most dangerous features of mountain waves is the turbulent areas in and	A
<b>OPCION A:</b>	below rotor clouds.	
<b>OPCION B:</b>	above rotor clouds.	
<b>OPCION C:</b>	below lenticular clouds.	

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PREG20098648	The conditions most favorable to wave formation over mountainous areas are a layer of	A
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- 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.

PREG20098647 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.

PREG20098645 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.

PREG20098644 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 cloud is maximum.

PREG20098643 What visible signs indicate extreme turbulence in 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.

PREG20098642 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 a thunderstorm.
- OPCION C:** The beginning of rain at the Earth's surface indicates the dissipating stage of a thunderstorm.

PREG20098641 Of the following, which is accurate regarding turbulence associated with thunderstorms? C

- OPCION A:** Outside the cloud, shearturbulence can be encountered 50 miles laterally from a severe storm.

<b>OPCION B:</b>	Shear turbulence is encountered only inside cumulonimbus clouds or within a 5-mile radius of them.	
<b>OPCION C:</b>	Outside the cloud, shearturbulence can be encountered 20 miles laterally from a severe storm.	
PREG20098640	During departure, under conditions of suspected low-level wind shear, a sudden decrease in headwind will cause	A
<b>OPCION A:</b>	a loss in airspeed equal to the decrease in wind velocity.	
<b>OPCION B:</b>	a gain in airspeed equal to to the decrease in wind velocity.	
<b>OPCION C:</b>	no change in airspeed, but groundspeed will decrease.	
PREG20098638	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
<b>OPCION A:</b>	leeward side when flying with a tailwind.	
<b>OPCION B:</b>	leeward side when flying into the wind.	
<b>OPCION C:</b>	windward side when flying into the wind.	
PREG20098625	A moist, instable air mass is characterized by	B
<b>OPCION A:</b>	poor visibility and smooth air.	
<b>OPCION B:</b>	cumuliform clouds and showery precipitation.	
<b>OPCION C:</b>	stratiform clouds and continuous precipitation.	
PREG20098633	What is an important characteristic of wind shear?	C
<b>OPCION A:</b>	It is present at only lower levels and exists in a horizontal direction.	
<b>OPCION B:</b>	It is present at any level and exists in only a vertical direction.	
<b>OPCION C:</b>	It can be present at any level and can exist in both a horizontal and vertical direction.	
PREG20098623	Which combination of weather-producing variables would likely result in cumuliform-type clouds, good visibility, and showery rain?	B
<b>OPCION A:</b>	Stable, moist air and orographic lifting.	
<b>OPCION B:</b>	Unstable, moist air and orographic lifting.	
<b>OPCION C:</b>	Unstable, moist air and no lifting mechanism.	
PREG20098608	Virga is best described as	A
<b>OPCION A:</b>	streamers of precipitation trailing beneath clouds which evaporates before reaching the ground.	
<b>OPCION B:</b>	wall cloud torrents trailing beneath cumulonimbus clouds which dissipate before reaching the ground.	
<b>OPCION C:</b>	turbulent areas beneath cumulonimbus clouds.	
PREG20098607	Which is true regarding actual air temperature and dewpoint temperature spread? The temperature spread	B
<b>OPCION A:</b>	decreases as the relative humidity decreases.	

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**OPCION B:** decreases as the relative humidity increases.

**OPCION C:** increases as the relative humidity increases.

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PREG20098606 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.

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PREG20098605 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.

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PREG20098609 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.

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PREG20098604 What prevents air from flowing directly from high-pressure areas to A  
low-pressure areas?

**OPCION A:** Coriolis force.

**OPCION B:** Surface friction.

**OPCION C:** Pressure gradient force.

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PREG20098602 What causes wind? C

**OPCION A:** The Earth's rotation.

**OPCION B:** Air mass modification.

**OPCION C:** Pressure differences.

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PREG20098601 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.

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PREG20098600 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.

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PREG20098624 What is a characteristic of stable air? A

**OPCION A:** Stratiform clouds.

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**OPCION B:** Fair weather cumulus clouds.

**OPCION C:** Temperature decreases rapidly with altitude.

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PREG20098603 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.

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PREG20098611 What is indicated if ice pellets are encountered at 8,000 feet? A

**OPCION A:** Freezing rain at higher altitude.

**OPCION B:** You are approaching an area of thunderstorms.

**OPCION C:** You will encounter hail if you continue your flight.

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PREG20098610 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.

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PREG20098618 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.

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PREG20098620 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.

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PREG20098619 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.

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PREG20098612 Ice pellets encountered during flight normally are evidence that C

**OPCION A:** a cold front has passed.

**OPCION B:** there are thunderstorms in the area.

**OPCION C:** freezing rain exists at higher altitudes.

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PREG20098617 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.

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PREG20098616 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.

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PREG20098615 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.

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PREG20098614 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.

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PREG20098613 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 stratocumulus clouds.  
**OPCION B:** Restricted visibility near the surface over a large area.  
**OPCION C:** Strong updrafts and cumulonimbus clouds.

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PREG20098621 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.

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PREG20098622 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.

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