

**TEMA:** 0626 ATP-RTC - Meteorology and Weather Services - Chap.8

**COD\_PREG:** PREGUNTA: **RPTA:**  
PREG20098166 (9299) What is indicated on the Weather Depiction Chart by a continuous smooth line enclosing a hatched geographic area? C  
**OPCION A:** The entire area has ceilings less than 1,000 feet and/or visibility less than 3 miles  
**OPCION B:** More than 50 percent of the area enclosed by the smooth line is predicted to have IFR conditions  
**OPCION C:** Reporting stations within the enclosed area are all showing IFR conditions at the time of the report  
**OPCION D:**

PREG20098167 (9701) The horizontal wind shear, critical for turbulence (moderate or greater) per 150 miles is B  
**OPCION A:** 18 knots or less  
**OPCION B:** greater than 18 knots  
**OPCION C:** not a factor, only vertical shear is a factor  
**OPCION D:**

PREG20098168 (9706) A severe thunderstorm is one in which the surface wind is A  
**OPCION A:** 50 knots or greater and/or surface hail is 3/4 inch or more in diameter.  
**OPCION B:** 55 knots or greater and/or surface hail is 1/2 inch or more in diameter.  
**OPCION C:** 45 knots or greater and/or surface hail is 1 inch or more in diameter.  
**OPCION D:**

PREG20098169 (9708) A squall is a sudden increase of at least 16 knots in average wind speed to a sustained speed of B  
**OPCION A:** 24 knots or more for at least 1 minute  
**OPCION B:** 22 knots or more for at least 1 minute  
**OPCION C:** 20 knots or more for at least 1 minute  
**OPCION D:**

PREG20098170 (9709) A calm wind that is forecast, in the international Terminal Aerodrome Forecast (TAF) is encoded as B  
**OPCION A:** VRB00KT  
**OPCION B:** 00000KT  
**OPCION C:** 00003KT  
**OPCION D:**

PREG20098171 (9710) In the International Terminal Aerodrome Forecast (TAF), a variable wind direction is noted by "VRB" where the three digit direction usually appears. A calm wind appears in the TAF as C

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**OPCION A:** 00003KT  
**OPCION B:** VRB00KT  
**OPCION C:** 00000KT  
**OPCION D:**

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PREG20098172 (9713) KFTW UA/OV DFW/TM 1645/FL100/TP PA30/SK SCT031- TOP043/BKN060-TOP085/OVC097-TOPUNKN/WX FV00SM RA/TA 07 This pilot report to Fort Worth (KFTW) indicates C

**OPCION A:** the aircraft is in light rain  
**OPCION B:** that the top of the ceiling is 4,300 feet  
**OPCION C:** the ceiling at KDFW is 6,000 feet  
**OPCION D:**

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PREG20098173 (9716) The prevailing visibility in the following METAR is METAR KFSM 131756Z AUTO 00000KT M1/4SM R25/0600V 1000FT-RA FG VV004 06/05 A2989 RMK AO2 \$ A

**OPCION A:** less than 1/4 statute mile  
**OPCION B:** measured 1/4 statute mile  
**OPCION C:** a mean (average) of 1/4 statute mile  
**OPCION D:**

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PREG20098174 (9718) The VV001 in the following METAR indicates METAR KFSM 131756Z AUTO 00000KT M1/4SM R25/0600V1000FT - RA FG VV001 A2989 RMK AO2 VIS 3/4 RWY19 CHINO RWY19\$ B

**OPCION A:** an observer reported the vertical visibility as 100 feet  
**OPCION B:** a 100 foot indefinite ceiling  
**OPCION C:** the variability value is 100 feet  
**OPCION D:**

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PREG20098079 (9151) What is a characteristic of the troposphere? B

**OPCION A:** It contains all the moisture of the atmosphere.  
**OPCION B:** There is an overall decrease of temperature with an increase of altitude.  
**OPCION C:** The average altitude of the top of the troposphere is about 6 miles.  
**OPCION D:**

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PREG20098080 (9152) What is the primary cause of all changes in the Earth's weather? A

**OPCION A:** Variations of solar energy at the Earth's surface  
**OPCION B:** Changes in air pressure over the Earth's surface  
**OPCION C:** Movement of air masses from moist areas to dry areas  
**OPCION D:**

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PREG20098060 (9130) What is the expected duration of an individual microburst? C

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- OPCION A:** Two minutes with maximum winds lasting approximately 1 minute  
**OPCION B:** One microburst may continue for as long as 2 to 4 hours  
**OPCION C:** Seldom longer than 15 minutes from the time the burst strikes the ground until dissipation  
**OPCION D:**
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- PREG20098061 (9133) Which INITIAL cockpit indications should a pilot be aware of when a headwind shears to a calm wind? C
- OPCION A:** Indicated airspeed decreases, aircraft pitches up, and altitude decreases.  
**OPCION B:** Indicated airspeed increases, aircraft pitches down, and altitude increases.  
**OPCION C:** Indicated airspeed decreases, aircraft pitches down, and altitude decreases.  
**OPCION D:**
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- PREG20098062 (9134) Which condition would INITIALLY cause the indicated airspeed and pitch to increase and the sink rate to decrease? C
- OPCION A:** Sudden decrease in a headwind component.  
**OPCION B:** Tailwind which suddenly increases in velocity.  
**OPCION C:** Sudden increase in a headwind component.  
**OPCION D:**
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- PREG20098063 (9135) Which INITIAL cockpit indications should a pilot be aware of when a constant tailwind shears to a calm wind? C
- OPCION A:** Altitude increases; pitch and indicated airspeed decrease  
**OPCION B:** Altitude, pitch, and indicated airspeed decrease  
**OPCION C:** Altitude, pitch, and indicated airspeed increase  
**OPCION D:**
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- PREG20098064 (9136) What is the recommended technique to counter the loss of airspeed and resultant lift from wind shear? C
- OPCION A:** Lower the pitch attitude and regain lost airspeed.  
**OPCION B:** Avoid overstressing the aircraft, "pitch to airspeed", and apply maximum power.  
**OPCION C:** Maintain, or increase, pitch attitude and accept the lower-than-normal airspeed indications.  
**OPCION D:**
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- PREG20098065 (9137) Which wind-shear condition results in a loss of airspeed? B
- OPCION A:** Decreasing headwind or tailwind  
**OPCION B:** Decreasing headwind and increasing tailwind  
**OPCION C:** Increasing headwind and decreasing tailwind  
**OPCION D:**
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- PREG20098066 (9138) Which wind-shear condition results in an increase in airspeed? C

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- OPCION A:** Increasing tailwind and decreasing headwind.  
**OPCION B:** Increasing tailwind and headwind.  
**OPCION C:** Decreasing tailwind and increasing headwind.  
**OPCION D:**
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PREG20098067 (9139) Which is the definition of "severe wind shear"? B

- OPCION A:** Any rapid change of horizontal wind shear in excess of 25 knots; vertical shear excepted.  
**OPCION B:** Any rapid change in wind direction or velocity which causes airspeed changes greater than 500 ft/min.  
**OPCION C:** Any change of airspeed greater than 20 knots which is sustained for more than 20 seconds or vertical speed changes in excess of 100 ft/min.  
**OPCION D:**
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PREG20098068 (9140) Doppler wind measurements indicate that the windspeed change a pilot may expect when flying through the peak intensity of a microburst is approximately C

- OPCION A:** 15 knots  
**OPCION B:** 25 knots  
**OPCION C:** 45 knots  
**OPCION D:**
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PREG20098069 (9141) Which airplane performance characteristics should be recognized during takeoff when encountering a tailwind shear that increases in intensity? A

- OPCION A:** Loss of, or diminished, airspeed performance  
**OPCION B:** Decreased takeoff distance  
**OPCION C:** Increased climb performance immediately after takeoff  
**OPCION D:**
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PREG20098070 (9142) Thrust is being managed to maintain desired indicated airspeed and the glide slope is being flown. Which characteristics should be observed when a tailwind shears to a constant headwind? B

- OPCION A:** PITCH ATTITUDE: Increases. VERTICAL SPEED: Increases. INDICATED AIRSPEED: Decreases, then increases to approach speed.  
**OPCION B:** PITCH ATTITUDE: Increases. VERTICAL SPEED: Decreases. INDICATED AIRSPEED: Increases, then decreases.  
**OPCION C:** PITCH ATTITUDE: Decreases. VERTICAL SPEED: Decreases. INDICATED AIRSPEED: Decreases, then increases to approach speed.  
**OPCION D:**
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PREG20098071 (9143) Maximum downdrafts in a microburst encounter may be as strong as C

- OPCION A:** 8,000 ft/min  
**OPCION B:** 7,000 ft/min

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**OPCION C:** 6,000 ft/min

**OPCION D:**

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PREG20098072 (9144) An aircraft that encounters a headwind of 45 knots, within a microburst, may expect a total shear across the microburst of C

**OPCION A:** 40 knots

**OPCION B:** 80 knots

**OPCION C:** 90 knots

**OPCION D:**

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PREG20098073 (9145) (Refer to Figure 144.) If involved in a microburst encounter, in which aircraft positions will the most severe downdraft occur? C

**OPCION A:** 4 and 5

**OPCION B:** 2 and 3

**OPCION C:** 3 and 4

**OPCION D:**

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PREG20098074 (9146) (Refer to Figure 144.) When penetrating a microburst, which aircraft will experience an increase in performance without a change in pitch or power? C

**OPCION A:** 3

**OPCION B:** 2

**OPCION C:** 1

**OPCION D:**

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PREG20098075 (9147) (Refer to Figure 144.) What effect will a microburst encounter have upon the aircraft in position 3? C

**OPCION A:** Decreasing headwind

**OPCION B:** Increasing tailwind

**OPCION C:** Strong downdraft

**OPCION D:**

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PREG20098076 (9148) (Refer to Figure 144.) What effect will a microburst encounter have upon the aircraft in position 4? A

**OPCION A:** Strong tailwind

**OPCION B:** Strong updraft

**OPCION C:** Significant performance increase

**OPCION D:**

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PREG20098077 (9149) (Refer to Figure 144.) How will the aircraft in position 4 be affected by a microburst encounter? B

**OPCION A:** Performance increasing with a tailwind and updraft

**OPCION B:** Performance decreasing with a tailwind and downdraft

**OPCION C:** Performance decreasing with a headwind and downdraft

**OPCION D:**

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PREG20098078 (9150)	What is the expected duration of an individual microburst?	C
<b>OPCION A:</b>	Two minutes with maximum winds lasting approximately 1 minute	
<b>OPCION B:</b>	One microburst may continue for as long as 2 to 4 hours	
<b>OPCION C:</b>	Seldom longer than 15 minutes from the time the burst strikes the ground until dissipation	
<b>OPCION D:</b>		

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PREG20098081 (9153)	What characterizes a ground-based inversion?	C
<b>OPCION A:</b>	Convection currents at the surface.	
<b>OPCION B:</b>	Cold temperatures.	
<b>OPCION C:</b>	Poor visibility.	
<b>OPCION D:</b>		

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PREG20098082 (9154)	What feature is associated with a temperature inversion?	A
<b>OPCION A:</b>	A stable layer of air.	
<b>OPCION B:</b>	An unstable layer of air.	
<b>OPCION C:</b>	Air mass thunderstorms.	
<b>OPCION D:</b>		

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PREG20098083 (9155)	When does minimum temperature normally occur during a 24-hour period?	A
<b>OPCION A:</b>	After sunrise	
<b>OPCION B:</b>	About 1 hour before sunrise	
<b>OPCION C:</b>	At midnight	
<b>OPCION D:</b>		

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PREG20098084 (9156)	Which area or areas of the Northern Hemisphere experience a generally east to west movement of weather systems?	B
<b>OPCION A:</b>	Arctic only	
<b>OPCION B:</b>	Arctic and subtropical	
<b>OPCION C:</b>	Subtropical only	
<b>OPCION D:</b>		

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PREG20098085 (9157)	At lower levels of the atmosphere, friction causes the wind to flow across isobars into a low because the friction	A
<b>OPCION A:</b>	decreases windspeed and Coriolis force	
<b>OPCION B:</b>	decreases pressure gradient force	
<b>OPCION C:</b>	creates air turbulence and raises atmospheric pressure	
<b>OPCION D:</b>		

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PREG20098086 (9159)	What is a feature of air movement in a high pressure area?	B
<b>OPCION A:</b>	Ascending from the surface high to lower pressure at higher altitudes	
<b>OPCION B:</b>	Descending to the surface and then outward	
<b>OPCION C:</b>	Moving outward from the high at high altitudes and into the high at the surface	
<b>OPCION D:</b>		

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PREG20098087 (9160)	Where is the usual location of a thermal low?	C
<b>OPCION A:</b>	Over the arctic region.	
<b>OPCION B:</b>	Over the eye of a hurricane.	
<b>OPCION C:</b>	Over the surface of a dry, sunny region.	
<b>OPCION D:</b>		

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PREG20098088 (9161)	Freezing rain encountered during climb is normally evidence that	B
<b>OPCION A:</b>	a climb can be made to a higher altitude without encountering more than light icing	
<b>OPCION B:</b>	a layer of warmer air exists above	
<b>OPCION C:</b>	ice pellets at higher altitudes have changed to rain in the warmer air below	
<b>OPCION D:</b>		

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PREG20098089 (9162)	What temperature condition is indicated if precipitation in the form of wet snow occurs during flight?	A
<b>OPCION A:</b>	The temperature is above freezing at flight altitude	
<b>OPCION B:</b>	The temperature is above freezing at higher altitudes	
<b>OPCION C:</b>	There is an inversion with colder air below	
<b>OPCION D:</b>		

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PREG20098090 (9166)	What is an important characteristic of wind shear?	C
<b>OPCION A:</b>	It is primarily associated with the lateral vortices generated by thunderstorms.	
<b>OPCION B:</b>	It usually exists only in the vicinity of thunderstorms, but may be found near a strong temperature inversion.	
<b>OPCION C:</b>	It may be associated with either a wind shift or a windspeed gradient at any level in the atmosphere.	
<b>OPCION D:</b>		

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PREG20098091 (9169)	What condition produces the most frequent type of ground-or surface-based temperature inversion?	C
<b>OPCION A:</b>	The movement of colder air under warm air or the movement of warm air over cold air.	
<b>OPCION B:</b>	Widespread sinking of air within a thick layer aloft resulting in heating by compression.	
<b>OPCION C:</b>	Terrestrial radiation on a clear, relatively calm night.	
<b>OPCION D:</b>		

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PREG20098092 (9170)	Which term applies when the temperature of the air changes by compression or expansion with no heat added or removed?	C
<b>OPCION A:</b>	Katabatic.	
<b>OPCION B:</b>	Advection.	
<b>OPCION C:</b>	Adiabatic.	
<b>OPCION D:</b>		

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PREG20098093 (9171)	What is the approximate rate unsaturated air will cool flowing upslope?	A
<b>OPCION A:</b>	3°C per 1,000 feet.	
<b>OPCION B:</b>	2°C per 1,000 feet.	
<b>OPCION C:</b>	4°C per 1,000 feet.	
<b>OPCION D:</b>		

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PREG20098094 (9175)	Isobars on a surface weather chart represent lines of equal pressure	B
<b>OPCION A:</b>	at the surface	
<b>OPCION B:</b>	reduced to sea level	
<b>OPCION C:</b>	at a given atmospheric pressure altitude	
<b>OPCION D:</b>		

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PREG20098095 (9176)	At which location does Coriolis force have the least effect on wind direction?	C
<b>OPCION A:</b>	At the poles	
<b>OPCION B:</b>	Middle latitudes (30° to 60°)	
<b>OPCION C:</b>	At the Equator	
<b>OPCION D:</b>		

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PREG20098096 (9177)	How does Coriolis force affect wind direction in the Southern Hemisphere?	A
<b>OPCION A:</b>	Causes clockwise rotation around a low	
<b>OPCION B:</b>	Causes wind to flow out of a low toward a high	
<b>OPCION C:</b>	Has exactly the same effect as in the Northern Hemisphere	
<b>OPCION D:</b>		

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PREG20098097 (9178)	Which weather condition is defined as an anticyclone?	B
<b>OPCION A:</b>	Calm	
<b>OPCION B:</b>	High pressure area	
<b>OPCION C:</b>	COL	
<b>OPCION D:</b>		

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PREG20098098 (9179)	Which conditions result in the formation of frost?	C
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- OPCION A:** The temperature of the collecting surface is at or below freezing and small droplets of moisture are falling
- OPCION B:** Dew collects on the surface and then freezes because the surface temperature is lower than the air temperature
- OPCION C:** Temperature of the collecting surface is below the dewpoint and the dewpoint is also below freezing
- OPCION D:**
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PREG20098099 (9180) What condition is indicated when ice pellets are encountered during flight? B

- OPCION A:** Thunderstorms at higher levels
- OPCION B:** Freezing rain at higher levels
- OPCION C:** Snow at higher levels
- OPCION D:**
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PREG20098100 (9181) When will frost most likely form on aircraft surfaces? A

- OPCION A:** On clear nights with stable air and light winds
- OPCION B:** On overcast nights with freezing drizzle precipitation
- OPCION C:** On clear nights with convective action and a small temperature / dewpoint spread
- OPCION D:**
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PREG20098101 (9182) What is the result when water vapor changes to the liquid state while being lifted in a thunderstorm? A

- OPCION A:** Latent heat is released to the atmosphere.
- OPCION B:** Latent heat is transformed into pure energy.
- OPCION C:** Latent heat is absorbed from the surrounding air by the water droplet.
- OPCION D:**
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PREG20098102 (9183) What is a feature of supercooled water? B

- OPCION A:** The water drop sublimates to an ice particle upon impact
- OPCION B:** The unstable water drop freezes upon striking an exposed object
- OPCION C:** The temperature of the water drop remains at 0°C until it impacts a part of the airframe, then clear ice accumulates
- OPCION D:**
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PREG20098103 (9184) What is indicated about an air mass if the temperature remains unchanged or decreases slightly as altitude is increased? C

- OPCION A:** The air is unstable.
- OPCION B:** A temperature inversion exists.
- OPCION C:** The air is stable.
- OPCION D:**
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PREG20098104 (9185)	What weather condition occurs at the altitude where the dewpoint lapse rate and the dry adiabatic lapse rate converge?	A
<b>OPCION A:</b>	Cloud bases form	
<b>OPCION B:</b>	Precipitation starts	
<b>OPCION C:</b>	Stable air changes to unstable air	
<b>OPCION D:</b>		

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PREG20098105 (9186)	Which process causes adiabatic cooling?	A
<b>OPCION A:</b>	Expansion of air as it rises.	
<b>OPCION B:</b>	Movement of air over a colder surface.	
<b>OPCION C:</b>	Release of latent heat during the vaporization process.	
<b>OPCION D:</b>		

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PREG20098106 (9187)	When saturated air moves downhill, its temperature increases	B
<b>OPCION A:</b>	at a faster rate than dry air because of the release of latent heat.	
<b>OPCION B:</b>	at a slower rate than dry air because vaporization uses heat.	
<b>OPCION C:</b>	at a slower rate than dry air because condensation releases heat.	
<b>OPCION D:</b>		

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PREG20098107 (9188)	Which condition is present when a local parcel of air is stable?	A
<b>OPCION A:</b>	The parcel of air resists convection	
<b>OPCION B:</b>	The parcel of air cannot be forced uphill	
<b>OPCION C:</b>	As the parcel of air moves upward, its temperature becomes warmer than the surrounding air	
<b>OPCION D:</b>		

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PREG20098108 (9189)	Convective clouds which penetrate a stratus layer can produce which threat to instrument flight?	C
<b>OPCION A:</b>	Freezing rain	
<b>OPCION B:</b>	Clear air turbulence	
<b>OPCION C:</b>	Embedded thunderstorms	
<b>OPCION D:</b>		

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PREG20098109 (9190)	Which type clouds are indicative of very strong turbulence?	B
<b>OPCION A:</b>	Nimbostratus	
<b>OPCION B:</b>	Standing lenticular	
<b>OPCION C:</b>	Cirrocumulus	
<b>OPCION D:</b>		

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PREG20098110 (9191)	What is the feature of a stationary front?	C
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- OPCION A:** The warm front surface moves about half the speed of the cold front surface.  
**OPCION B:** Weather conditions are a combination of strong cold front and strong warm front weather.  
**OPCION C:** Surface winds tend to flow parallel to the frontal zone.  
**OPCION D:**
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- PREG20098111 (9192) Which event usually occurs after an aircraft passes through a front into the colder air? C
- OPCION A:** Temperature/dewpoint spread decreases.  
**OPCION B:** Wind direction shifts to the left.  
**OPCION C:** Atmospheric pressure increases.  
**OPCION D:**
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- PREG20098112 (9193) What minimum thickness of cloud layer is indicated if precipitation is reported as light or greater intensity? A
- OPCION A:** 4,000 feet thick  
**OPCION B:** 2,000 feet thick  
**OPCION C:** A thickness which allows the cloud tops to be higher than the freezing level  
**OPCION D:**
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- PREG20098113 (9194) Which condition produces weather on the lee side of a large lake? A
- OPCION A:** Warm air flowing over a colder lake may produce fog  
**OPCION B:** Cold air flowing over a warmer lake may produce advection fog  
**OPCION C:** Warm air flowing over a cool lake may produce rain showers  
**OPCION D:**
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- PREG20098114 (9195) How can the stability of the atmosphere be determined? A
- OPCION A:** Ambient temperature lapse rate.  
**OPCION B:** Atmospheric pressure at various levels.  
**OPCION C:** Surface temperatures/dewpoint spread.  
**OPCION D:**
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- PREG20098115 (9196) Which weather phenomenon signals the beginning of the mature stage of a thunderstorm? B
- OPCION A:** The appearance of an anvil top.  
**OPCION B:** The start of rain at the surface.  
**OPCION C:** Growth rate of the cloud is at its maximum.  
**OPCION D:**
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- PREG20098116 (9197) During the life cycle of a thunderstorm, which stage is characterized predominately by downdrafts? B
- OPCION A:** Cumulus

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**OPCION B:** Dissipating

**OPCION C:** Mature

**OPCION D:**

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PREG20098117 (9198) What feature is normally associated with the cumulus stage of a thunderstorm? C

**OPCION A:** Beginning of rain at the surface.

**OPCION B:** Frequent lightning.

**OPCION C:** Continuous updraft.

**OPCION D:**

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PREG20098118 (9201) Where can the maximum hazard zone caused by wind shear associated with a thunderstorm be found? C

**OPCION A:** in front of the thunderstorm cell (anvil side) and on the southwest side of the cell

**OPCION B:** Ahead of the roll cloud or gust front and directly under the anvil cloud

**OPCION C:** On all sides and directly under the thunderstorm cell

**OPCION D:**

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PREG20098119 (9202) Atmospheric pressure changes due to a thunderstorm will be at the lowest value B

**OPCION A:** during the downdraft and heavy rain showers.

**OPCION B:** when the thunderstorm is approaching.

**OPCION C:** immediately after the rain showers have stopped.

**OPCION D:**

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PREG20098120 (9203) Why are downdrafts in a mature thunderstorm hazardous? A

**OPCION A:** Downdrafts are kept cool by cold rain which tends to accelerate the downward velocity

**OPCION B:** Downdrafts converge toward a central location under the storm after striking the surface

**OPCION C:** Downdrafts become warmer than the surrounding air and reverse into an updraft before reaching the surface

**OPCION D:**

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PREG20098121 (9204) What is a difference between an air mass thunderstorm and a steady-state thunderstorm? B

**OPCION A:** Air mass thunderstorms produce precipitation which falls outside of the updraft

**OPCION B:** Air mass thunderstorm downdrafts and precipitation retard and reverse the updrafts

**OPCION C:** Steady-state thunderstorms are associated with local surface heating

**OPCION D:**

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PREG20098122 (9205)	Which type storms are most likely to produce funnel clouds or tornadoes?	B
<b>OPCION A:</b>	Air mass thunderstorms	
<b>OPCION B:</b>	Cold front or squall line thunderstorms	
<b>OPCION C:</b>	Storms associated with icing and supercooled water	
<b>OPCION D:</b>		

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PREG20098123 (9206)	When advection fog has developed, what may tend to dissipate or lift the fog into low stratus clouds?	B
<b>OPCION A:</b>	Temperature inversion.	
<b>OPCION B:</b>	Wind stronger than 15 knots.	
<b>OPCION C:</b>	Surface radiation.	
<b>OPCION D:</b>		

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PREG20098124 (9207)	Which conditions are necessary for the formation of upslope fog?	A
<b>OPCION A:</b>	Moist, stable air being moved over gradually rising ground by a wind	
<b>OPCION B:</b>	A clear sky, little or no wind, and 100 percent relative humidity	
<b>OPCION C:</b>	Rain falling through stratus clouds and a 10 to 25-knot wind moving the precipitation up the slope	
<b>OPCION D:</b>		

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PREG20098125 (9208)	How are haze layers cleared or dispersed?	B
<b>OPCION A:</b>	By convective mixing in cool night air.	
<b>OPCION B:</b>	By wind or the movement of air.	
<b>OPCION C:</b>	By evaporation similar to the clearing of fog.	
<b>OPCION D:</b>		

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PREG20098126 (9209)	Which feature is associated with the tropopause?	C
<b>OPCION A:</b>	Absence of wind and turbulence	
<b>OPCION B:</b>	Absolute upper limit of cloud formation	
<b>OPCION C:</b>	Abrupt change of temperature lapse rate	
<b>OPCION D:</b>		

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PREG20098127 (9210)	Which type cloud is associated with violent turbulence and a tendency toward the production of funnel clouds?	A
<b>OPCION A:</b>	Cumulonimbus mamma	
<b>OPCION B:</b>	Standing lenticular	
<b>OPCION C:</b>	Stratocumulus	
<b>OPCION D:</b>		

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PREG20098128 (9211)	A clear area in a line of thundestorm echoes on a radar scope indicates	C
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- OPCION A:** the absence of clouds in the area.  
**OPCION B:** an area of no convective turbulence.  
**OPCION C:** an area where precipitation drops are not detected.  
**OPCION D:**
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- PREG20098129 (9212) When flying over the top of a severe thunderstorm, the cloud should be overflowed by at least A
- OPCION A:** 1,000 feet for each 10 knots windspeed  
**OPCION B:** 2,500 feet  
**OPCION C:** 500 feet above any moderate to severe turbulence layer  
**OPCION D:**
- 

- PREG20098130 (9213) What type weather change is to be expected in an area where frontolysis is reported? B
- OPCION A:** The frontal weather is becoming stronger  
**OPCION B:** The front is dissipating  
**OPCION C:** The front is moving at a faster speed  
**OPCION D:**
- 

- PREG20098131 (9214) Which weather condition is an example of a nonfrontal instability band? A
- OPCION A:** Squall line  
**OPCION B:** Advective fog  
**OPCION C:** Frontogenesis  
**OPCION D:**
- 

- PREG20098132 (9215) Which atmospheric factor causes rapid movement of surface fronts? A
- OPCION A:** Upper winds blowing across the front.  
**OPCION B:** Upper low located directly over the surface low.  
**OPCION C:** The cold front overtaking and lifting the warm front.  
**OPCION D:**
- 

- PREG20098133 (9216) In which meteorological conditions can frontal waves and low pressure areas form? B
- OPCION A:** Warm fronts or occluded fronts.  
**OPCION B:** Slow-moving cold fronts or stationary fronts.  
**OPCION C:** Cold front occlusions.  
**OPCION D:**
- 

- PREG20098134 (9217) What weather difference is found on each side of a "dry line"? B
- OPCION A:** Extreme temperature difference  
**OPCION B:** Dewpoint difference

---

**OPCION C:** Stratus versus cumulus clouds

**OPCION D:**

---

PREG20098135 (9218) Under what conditions would clear air turbulence (CAT) most likely be encountered? A

**OPCION A:** When constant pressure charts show 20-knot isotachs less than 60 NM apart

**OPCION B:** When constant pressure charts show 60-knot isotachs less than 20 NM apart

**OPCION C:** When a sharp trough is moving at a speed less than 20 knots

**OPCION D:**

---

PREG20098136 (9219) What action is recommended when encountering turbulence due to a wind shift associated with a sharp pressure trough? A

**OPCION A:** Establish a course across the trough

**OPCION B:** Climb or descend to a smoother level

**OPCION C:** Increase speed to get out of the trough as soon as possible

**OPCION D:**

---

PREG20098137 (9220) In comparison to an approach in a moderate headwind, which is an indication of a possible wind shear due to a decreasing headwind when descending on the glide slope? B

**OPCION A:** Less power is required.

**OPCION B:** Higher pitch attitude is required.

**OPCION C:** Lower descent rate is required.

**OPCION D:**

---

PREG20098138 (9221) What condition is necessary for the formation of structural icing in flight? C

**OPCION A:** Supercooled water drops

**OPCION B:** Water vapor

**OPCION C:** Visible water

**OPCION D:**

---

PREG20098139 (9223) Which type precipitation is an indication that supercooled water is present? B

**OPCION A:** Wet snow

**OPCION B:** Freezing rain

**OPCION C:** Ice pellets

**OPCION D:**

---

PREG20098141 (9226) What is the lowest cloud in the stationary group associated with a mountain wave? A

**OPCION A:** Rotor cloud

**OPCION B:** Standing lenticular

**OPCION C:** Low stratus

---

**OPCION D:**

PREG20098142 (9227) Where is the normal location of the jetstream relative to surface lows and fronts? A

**OPCION A:** The jetstream is located north of the surface systems

**OPCION B:** The jetstream is located south of the low and warm front

**OPCION C:** The jetstream is located over the low and crosses both the warm front and the cold front

**OPCION D:**

---

PREG20098140 (9225) Which is a necessary condition for the occurrence of a low-level temperature inversion wind shear? B

**OPCION A:** The temperature differential between the cold and warm layers must be at least 10°C.

**OPCION B:** A calm or light wind near the surface and a relatively strong wind just above the inversion.

**OPCION C:** A wind direction difference of at least 30° between the wind near the surface and the wind just above the inversion.

**OPCION D:**

---

PREG20098143 (9228) Which type frontal system is normally crossed by the jetstream? C

**OPCION A:** Cold front and warm front

**OPCION B:** Warm front

**OPCION C:** Occluded front

**OPCION D:**

---

PREG20098144 (9229) Which type clouds may be associated with the jetstream? B

**OPCION A:** Cumulonimbus cloud line where the jetstream crosses the cold front

**OPCION B:** Cirrus clouds on the equatorial side of the jetstream

**OPCION C:** Cirrostratus cloud band on the polar side and under the jetstream

**OPCION D:**

---

PREG20098145 (9230) Which action is recommended if jetstream turbulence is encountered with a direct headwind or tailwind? C

**OPCION A:** Increase airspeed to get out of the area quickly.

**OPCION B:** Change course to fly on the polar side of the jetstream.

**OPCION C:** Change altitude or course to avoid a possible elongated turbulent area.

**OPCION D:**

---

PREG20098146 (9231) Which action is recommended regarding an altitude change to get out of jetstream turbulence? A

**OPCION A:** Descend if ambient temperature is falling

**OPCION B:** Descend if ambient temperature is rising

**OPCION C:** Maintain altitude if ambient temperature is not changing



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**OPCION D:**

PREG20098147 (9232) Clear air turbulence (CAT) associated with a mountain wave may extend as far as **B**

**OPCION A:** 1,000 miles or more downstream of the mountain

**OPCION B:** 5,000 feet above the tropopause

**OPCION C:** 100 miles or more upwind of the mountain

**OPCION D:**

---

PREG20098148 (9235) Turbulence encountered above 15,000 feet AGL, not associated with cloud formations, should be reported as **C**

**OPCION A:** convective turbulence.

**OPCION B:** high altitude turbulence.

**OPCION C:** clear air turbulence.

**OPCION D:**

---

PREG20098149 (9236) A strong wind shear can be expected **A**

**OPCION A:** on the low pressure side of a 100-knot jetstream core

**OPCION B:** where the horizontal wind shear is 15 knots, in a distance equal to 2.5° longitude

**OPCION C:** if the 5°C isotherms are spaced 100 NM or closer together

**OPCION D:**

---

PREG20098150 (9237) What is a likely location of clear air turbulences? **A**

**OPCION A:** in a upper trough on the polar side of a jetstream

**OPCION B:** Near a ridge aloft on the equatorial side of a high pressure flow

**OPCION C:** Downstream of the equatorial side of a jetstream

**OPCION D:**

---

PREG20098151 (9238) Where do the maximum winds associated with the jetstream usually occur? **A**

**OPCION A:** in the vicinity of breaks in the tropopause on the polar side of the jef core

**OPCION B:** Below the jet core where a long straight stretch of the jetstream is located

**OPCION C:** On the equatorial side of the jetstream where moisture has formed cirriform clouds

**OPCION D:**

---

PREG20098152 (9239) Which type jetstream can be expected to cause the greater turbulence? **C**

**OPCION A:** A straight jetstream associated with a high pressure ridge.

**OPCION B:** A jetstream associated with a wide isotherm spacing.

**OPCION C:** A curving jetstream associated with a deep low pressure trough.

**OPCION D:**

---

PREG20098153 (9240) What weather feature occurs at altitude level near the tropopause? A

**OPCION A:** Maximum winds and narrow wind shear zones

**OPCION B:** Abrupt temperature increase above the tropopause

**OPCION C:** Thin layers of cirrus (ice crystal) clouds at the tropopause level.

**OPCION D:**

---

PREG20098154 (9241) Where are jetstreams normally located? B

**OPCION A:** In areas of strong low pressure systems in the stratosphere

**OPCION B:** At the tropopause where intensified temperature gradients are located

**OPCION C:** In a single continuous band, encircling the Earth, where there is a break between the equatorial and polar tropopause

**OPCION D:**

---

PREG20098155 (9242) METAR KFSO 031053Z VRB02KT 7SM MIFG SKC 15/14 A3012 RMK SLP993 6/// T01500139 56012 B  
In the above METAR, the SLP993 6/// indicates

**OPCION A:** sea level pressure 999.3 hectopascals which in the last 6 hours has dropped 4 hectopascals

**OPCION B:** sea-level pressure 999.3 hectopascals and an indeterminable amount of precipitation has occurred over the last 3 hours

**OPCION C:** sea-level pressure 999.3 hectopascals and in the last 6 hours that four-tenths of an inch of precipitation has fallen

**OPCION D:**

---

PREG20098156 (9245) Weather conditions expected to occur in the vicinity of the airport, but not at the airport, are denoted by the letters "VC." When VC appears in a Terminal Aerodrome Forecast, it covers a geographical area of A

**OPCION A:** a 5 to 10 statute mile radius from the airport

**OPCION B:** a 5 mile radius of the center of a runway complex

**OPCION C:** 10 miles of the station originating the forecast

**OPCION D:**

---

PREG20098157 (9248) What weather is predicted by the term VCTS in a Terminal Aerodrome Forecast? A

**OPCION A:** Thunderstorms are expected in the vicinity

**OPCION B:** Thunderstorms may occur over the station and within 50 miles of the station

**OPCION C:** Thunderstorms are expected between 5 and 25 miles of the runway complex

**OPCION D:**

---

PREG20098158 (9249) If squalls are reported at the destination airport, what wind conditions existed at the time? B

**OPCION A:** Sudden increases in windspeed of at least 15 knots, to a sustained wind speed of 20 knots, lasting for at least 1 minute

---

**OPCION B:** A sudden increase in wind speed of at least 16 knots, the speed rising to 22 knots or more for 1 minute or longer

**OPCION C:** Rapid variation in wind direction of at least 20° and changes in speed of at least 10 knots between peaks and lulls

**OPCION D:**

---

PREG20098159 (9262) What type turbulence should be reported when it causes slight, rapid, and somewhat rhythmic bumpiness without appreciable changes in attitude or altitude, less than one-third of the time? A

**OPCION A:** Occasional light chop

**OPCION B:** Moderate turbulence

**OPCION C:** Moderate chop

**OPCION D:**

---

PREG20098160 (9263) What type turbulence should be reported when it causes changes in altitude and/or attitude more than two-thirds of the time, with the aircraft remaining in positive control at all times? B

**OPCION A:** Continuous severe chop.

**OPCION B:** Continuous moderate turbulence.

**OPCION C:** Intermittent moderate turbulence.

**OPCION D:**

---

PREG20098161 (9264) What type turbulence should be reported when it momentarily causes slight, erratic changes in altitude and/or attitude, one-third to two-thirds of the time? C

**OPCION A:** Occasional light chop.

**OPCION B:** Moderate chop.

**OPCION C:** Intermittent moderate turbulence.

**OPCION D:**

---

PREG20098162 (9265) What conditions are indicated on a Weather Depiction Chart? A

**OPCION A:** Actual sky cover, visibility restrictions, and type of precipitation at reporting stations

**OPCION B:** Forecast ceilings and visibilities over a large geographic area

**OPCION C:** Actual en route weather conditions between reporting stations

**OPCION D:**

---

PREG20098163 (9271) (Refer to Figure 145.) The peak wind at KAMA was reported to be from 320° true at 39 knots A

**OPCION A:** which occurred at 1743Z

**OPCION B:** with gusts to 43 knots

**OPCION C:** with .43 of an inch liquid precipitation since the last report

**OPCION D:**

---

PREG20098164 (9292) (Refer to Figure 149.) What will be the wind and temperature trend for a DSM LIT SHV flight at 12,000 feet? A

- OPCION A:** Windspeed decrease  
**OPCION B:** Temperature decrease  
**OPCION C:** Wind direction shift from northwest to southeast  
**OPCION D:**
- 

PREG20098165 (9293) (Refer to Figure 149.) What is the forecast temperature at ATL for the 3,000 foot level? C

- OPCION A:** +6°C  
**OPCION B:** +6° F  
**OPCION C:** Not reported  
**OPCION D:**
-