

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

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

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:

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:

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:

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:

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:

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

OPCION C: 6,000 ft/min

OPCION D:

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:

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:

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:

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:

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:

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:

PREG20098078 (9150) What is the expected duration of an individual microburst? C

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:

PREG20098081 (9153) What characterizes a ground-based inversion? C

OPCION A: Convection currents at the surface.

OPCION B: Cold temperatures.

OPCION C: Poor visibility.

OPCION D:

PREG20098082 (9154) What feature is associated with a temperature inversion? A

OPCION A: A stable layer of air.

OPCION B: An unstable layer of air.

OPCION C: Air mass thunderstorms.

OPCION D:

PREG20098083 (9155) When does minimum temperature normally occur during a 24-hour period? A

OPCION A: After sunrise

OPCION B: About 1 hour before sunrise

OPCION C: At midnight

OPCION D:

PREG20098084 (9156) Which area or areas of the Northern Hemisphere experience a generally east to west movement of weather systems? B

OPCION A: Arctic only

OPCION B: Arctic and subtropical

OPCION C: Subtropical only

OPCION D:

PREG20098085 (9157) At lower levels of the atmosphere, friction causes the wind to flow across isobars into a low because the friction A

OPCION A: decreases windspeed and Coriolis force

OPCION B: decreases pressure gradient force

OPCION C: creates air turbulence and raises atmospheric pressure

OPCION D:

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

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

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

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

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

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

PREG20098092 (9170) Which term applies when the temperature of the air changes by compression or expansion with no heat added or removed? C

OPCION A: Katabatic.

OPCION B: Advection.

OPCION C: Adiabatic.

OPCION D:

PREG20098093 (9171) What is the approximate rate unsaturated air will cool flowing upslope? A

OPCION A: 3°C per 1,000 feet.

OPCION B: 2°C per 1,000 feet.

OPCION C: 4°C per 1,000 feet.

OPCION D:

PREG20098094 (9175) Isobars on a surface weather chart represent lines of equal pressure B

OPCION A: at the surface

OPCION B: reduced to sea level

OPCION C: at a given atmospheric pressure altitude

OPCION D:

PREG20098095 (9176) At which location does Coriolis force have the least effect on wind direction? C

OPCION A: At the poles

OPCION B: Middle latitudes (30° to 60°)

OPCION C: At the Equator

OPCION D:

PREG20098096 (9177) How does Coriolis force affect wind direction in the Southern Hemisphere? A

OPCION A: Causes clockwise rotation around a low

OPCION B: Causes wind to flow out of a low toward a high

OPCION C: Has exactly the same effect as in the Northern Hemisphere

OPCION D:

PREG20098097 (9178) Which weather condition is defined as an anticyclone? B

OPCION A: Calm

OPCION B: High pressure area

OPCION C: COL

OPCION D:

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
OPCION A:	Cloud bases form	
OPCION B:	Precipitation starts	
OPCION C:	Stable air changes to unstable air	
OPCION D:		

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

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

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

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

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

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

OPCION B: Dissipating

OPCION C: Mature

OPCION D:

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:

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:

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:

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:

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:

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

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

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

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

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

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

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:
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- 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:
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- 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:
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- 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:
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- 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:
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- 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 frough? 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 headwing 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

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:
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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:
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