TEMA: 0119 ATP - (CHAP. 08) METEOROLOGY AND WEATHER SERVICES

COD_PREG:	PREGUNTA:	RPTA:
PREG20078616 (9130)	What is the expected duration of an individual microburst?	C
OPCION A:	Five minutes with maximum winds lasting approximately 2 to 4 minutes.	
OPCION B:	One microburst may continue for as long as an hour.	
OPCION C:	Seldom longer than 15 minutes from the time the burst strikes the ground until dissipation.	
OPCION D:		
PREG20078617 (9131)	Maximum downdrafts in a microburst encounter may be as strong as	C
OPCION A:	1,500 ft/min.	
OPCION B:	4,500 ft/min.	
OPCION C:	6,000 ft/min.	
OPCION D:		
PREG20078618 (9132)	An aircraft that encounters a headwind of 40 knots, within a microburst, may expect a total shear across the microburst of	B
OPCION A:	40 knots.	
OPCION B:	80 knots.	
OPCION C:	90 knots.	
OPCION D:		
PREG20078619 (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:		
PREG20078620 (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:		
PREG20078621 (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:

PREG20078622 (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:		

PREG20078623 (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:		

PREG20078624 (9138)	Which wind-shear condition results in an increase in airspeed?	C
OPCION A:	Increasing tailwind and decreasing headwind.	
OPCION B:	Increasing tailwind and headwind.	
OPCION C:	Decreasing tailwind and increasing headwind.	
OPCION D:		

PREG20078625 (9139)	Which is a 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 15 knots or vertical speed changes greater than 500 ft/min.	
OPCION C:	Any rapid change of airspeed greater than 20 knots which is sustained for more than 20 seconds or vertical speed changes in ecxess of 100 ft/min.	
OPCION D:		

PREG20078626 (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:		

PREG20078627 (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: Increases. VERTICAL SPEED: Increases. INDICATED AIRSPEED: Decreases, then increases to approach speed.

OPCION D:

PREG20078628 (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:

PREG20078629 (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:

PREG20078630 (9145) Ref. 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:

PREG20078631 (9146) Ref. 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:

PREG20078632 (9147) Fig. 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:

PREG20078633 (9148) — Fig. 144 — A

What effect will a microburst encounter have upon the aircraft in position 4?

OPCION A: Strong tailwind.

OPCION B: Strong updraft.

OPCION C: Significant performance increase.

OPCION D:

PREG20078634 (9149) — Fig. 144 — B

How will the aircraft in position 4 be affected by a microburst encounter?

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:

PREG20078635 (9150) — C

What is the expected duration of an individual microburst?

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:

PREG20078636 (9151) — B

What is a characteristic of the troposphere?

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:

PREG20078637 (9152) — A

What is the primary cause of all changes in the Earth's weather?

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:

PREG20078638 (9153) — C

What characterizes a ground-based inversion?

OPCION A: Convection currents at the surface.

OPCION B: Cold temperatures.

OPCION C: Poor visibility.

OPCION D:

PREG20078639 (9154) — A

What feature is associated with a temperature inversion?

OPCION A: A stable layer of air.
OPCION B: An unstable layer of air.
OPCION C: Air mass thunderstorms.
OPCION D:

PREG20078640 (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:

PREG20078641 (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:

PREG20078642 (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:

PREG20078643 (9158) Which type wind flows downslope becoming warmer and dryer? C

OPCION A: Land breeze.
OPCION B: Valley wind.
OPCION C: Katabatic wind.
OPCION D:

PREG20078644 (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:

PREG20078645 (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:

PREG20078646 (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:

PREG20078647 (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:

PREG20078648 (9165) What term describes an elongated area of low pressure? — A

OPCION A: Trough.
OPCION B: Ridge.
OPCION C: Hurricane or typhon.
OPCION D:

PREG20078649 (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:

PREG20078650 (9167) What information from the control tower is indicated by the following transmission? — C

"SOUTH BOUNDARY WIND ONE SIX ZERO AT TWO FIVE, WEST BOUNDARY WIND TWO FOUR ZERO AT THREE FIVE".

OPCION A: A downburst is located at the center of the airport.
OPCION B: Wake turbulence exists on the west side of the active runway.
OPCION C: There is a possibility of wind shear over or near the airport.
OPCION D:

PREG20078651 (9168) Where is a common location for an inversion? — B

OPCION A: At the tropopause.
OPCION B: In the stratosphere.
OPCION C: At the base of cumulus clouds.
OPCION D:

PREG20078652 (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:

PREG20078653 (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:

PREG20078654 (9171) What is the approximate rate unsaturated air will cool flowing upslope? A

OPCION A: 3° per 1,000 feet.
OPCION B: 2° per 1,000 feet.
OPCION C: 4° per 1,000 feet.
OPCION D:

PREG20078655 (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:

PREG20078656 (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:

PREG20078657 (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:

PREG20078658 (9178) Which weather condition is defined as an anticyclone? B

OPCION A: Calm.
OPCION B: High pressure area.
OPCION C: COL.
OPCION D:

PREG20078659 (9179) Which conditions result in the formation of frost? C

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:

PREG20078660 (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:

PREG20078661 (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:

PREG20078662 (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:

PREG20078663 (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:

PREG20078664 (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:

PREG20078665 (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:

PREG20078666 (9186) Which process causes adiabatic cooling? A

OPCION A: Expansion of air as it raises.

OPCION B: Movement of air over a colder surface.

OPCION C: Release of latent heat during the vaporization process.

OPCION D:

PREG20078667 (9187) When saturated air moves downhill, its temperature increases B

OPCION A: at a faster 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:

PREG20078668 (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:

PREG20078669 (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:

PREG20078670 (9190) Which type clouds are indicative of very strong turbulence? B

OPCION A: Nimbostratus.
OPCION B: Standing lenticular.
OPCION C: Cirrocumulus.
OPCION D:

PREG20078671 (9191) What is a feature of a stationary front? C

OPCION A: The warm fron 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:

PREG20078672 (9192) Which event usually occurs after an aircraft passes through a fron 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:

PREG20078673 (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:

PREG20078674 (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:

PREG20078675 (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 temperature/dewpoint spread.
OPCION D:

PREG20078676 (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:		

PREG20078677 (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:		

PREG20078678 (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:		

PREG20078679 (9199)	What is indicated by the term "embedded thunderstorms"?	C
OPCION A:	Severe thunderstorms are embedded in a squall line.	
OPCION B:	Thunderstorms are predicted to develop in a stable air mass.	
OPCION C:	Thunderstorms are obscured by other types of clouds.	
OPCION D:		

PREG20078680 (9200)	Where do squall lines most often develop?	B
OPCION A:	In an occluded front.	
OPCION B:	Ahead of a cold front.	
OPCION C:	Behind a stationary front.	
OPCION D:		

PREG20078681 (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:		

PREG20078682 (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:		

PREG20078683 (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:		

PREG20078684 (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:		

PREG20078685 (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 linde thuunderstorms.	
OPCION C:	Storms associated with icing and supercooled water.	
OPCION D:		

PREG20078686 (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:		

PREG20078687 (9207)	Which conditions are necessary for the formation of upslope fog?	A
OPCION A:	Moist, stable air behind 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:		

PREG20078688 (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:		

PREG20078689 (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:		

PREG20078690 (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:		

PREG20078691 (9211)	A clear area in a line of thunderstorm echoes on a radar scope indicates	C
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:		

PREG20078692 (9212)	When flying over the top of a severe thunderstorm, the cloud should be overflown 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 a severe turbulence layer.	
OPCION D:		

PREG20078693 (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:		

PREG20078694 (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:

PREG20078695 (9215) Which atmospheric factor cause 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:

PREG20078696 (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:

PREG20078697 (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:

PREG20078698 (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:

PREG20078699 (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:

PREG20078700 (9220) In comparison to an approach in a moderate headwind, which is an indication of a possible wind shear due to a decreasing headwindwhen 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:

PREG20078701 (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:

PREG20078702 (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:

PREG20078703 (9224) Which type of icing is associated with the smallest size of water droplet similar to that found in low-level stratus clouds? C

OPCION A: Clear ice.
OPCION B: Frost ice.
OPCION C: Rime ice.
OPCION D:

PREG20078704 (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:

PREG20078705 (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:

PREG20078706 (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:

PREG20078707 (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:

PREG20078708 (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:

PREG20078709 (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 occurs to fly on the polar side of the jetstream.

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

OPCION D:

PREG20078710 (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:

PREG20078711 (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:

PREG20078712 (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:

PREG20078713 (9237)	What is likely location of clear air turbulence?	A
OPCION A:	In an 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:		

PREG20078714 (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 jet 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 jestream where moisture has formed cirriform clouds.	
OPCION D:		

PREG20078715 (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:		

PREG20078716 (9240)	What weather feature occurs at altitude levels 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:		

PREG20078717 (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	
OPCION D:		

PREG20078718 (9243)	What is the single source reference that contains information regarding volcanic eruption, turbulence, and icing conditions for a specific region?	B
OPCION A:	Weather Depiction Chart	
OPCION B:	In flight weather advisories	
OPCION C:	Area forecast	
OPCION D:		

PREG20078719 (9244)	Which primary source contains information regarding the expected weather at the destination airport, at the ETA?	C
OPCION A:	Low-Level Prog Chart.	
OPCION B:	Radar Summary and Weather Depiction Charts.	
OPCION C:	Terminal Aerodrome Forecast.	
OPCION D:		

PREG20078720 (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:		

PREG20078721 (9246)	Which are the only cloud types forecast in the Terminal Aerodrome Forecast?	B
OPCION A:	Altocumulus.	
OPCION B:	Cumulonimbus.	
OPCION C:	Stratocumulus.	
OPCION D:		

PREG20078722 (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:		

PREG20078723 (9263)	What type turbulence should be reported when it causes 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:		

PREG20078724 (9264)	What type turbulence should be reported when it momentarily causes slight, erratic chnages 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 light turbulence.	
OPCION D:		

PREG20078725 (9266) — A

Fig. 145
What was the local Central Standard Time of the Aviation Routine Weather Report at Austin (KAUS)?

OPCION A: 11:53 a.m.
OPCION B: 5:53 p.m.
OPCION C: 10:53 p.m.
OPCION D:

PREG20078726 (9271) — A

Ref. Figure 145
The peak wind at KAMA was reported to be from 320º true at 39 knots.

OPCION A: wich ocurred at 1743Z
OPCION B: with gusts to 43 knots
OPCION C: with 43 of an inch liquid precipitation since the last report
OPCION D:

PREG20078727 (9272) — B

SPECI KGLS 131802Z 10012G21KT 060V140
2SM+SHRA SCT005BKN035 OVC050CB24/23 A2980
RMK RAB57 WS TKO RW09L WSHFT 58 FROPA.

This SPECI report at Galveston (KGLS) indicates which condition?

OPCION A: Wind steady at 100° magnetic at 12 knots, gusts to 21.
OPCION B: Precipitation started at 57 after the hour.
OPCION C: 5,000 feet overcast with towering cumulus.
OPCION D:

PREG20078728 (9274) — A

METAR KMAF 131756Z 02020KT 12SM BKN025 OVC250 27/18 A3009
RMK RAE44.

Which weather condition is indicated by this METAR report at Midland (KMAF)?

OPCION A: Rain of unknown intensity ended 16 minutes before the hour.
OPCION B: The ceiling was at 25,000 feet MSL.
OPCION C: Wind was 020° magnetic at 20 knots.
OPCION D:

PREG20078729 (9275) — C

METAR KSPS 131757Z 09014KT 6SM -RA SCT025 OVC090 24/22 A3005.
SPECI KSPS 131820Z 01025KT 3SM +RA FC OVC015 22/21 A3000.

Which change took place at Wichita Falls (KSPS) between 1757 and 1820 UTC?

OPCION A: The rain became lighter.
OPCION B: Atmospheric pressure increased.
OPCION C: A funnel cloud was observed.
OPCION D:

PREG20078730 (9277)	METAR KHRO 131753Z 09007KT 7SM FEW020 BKN040 30/27 A3001. SPECI KHRO 131815Z 13017G26KT 3SM +TSRA SCT020 BKN045TCU 29/24 A2983 RMK RAB12 WS TKO LDG RW14R FRQ LTGICCG VC. What change has taken place between 1753 and 1815 UTC at Harrison (KHRO)?	B
OPCION A:	The ceiling lowered and cumulonimbus clouds developed.	
OPCION B:	Thundershowers began at 12 minutes past the hour.	
OPCION C:	Visibility reduced to IFR conditions.	
OPCION D:		

PREG20078731 (9278)	A PROB40 (PROBability) HHhh group in an International Terminal Aerodrome Forecast (TAF) indicates the probability of	A
OPCION A:	thunderstorms or other precipitation.	
OPCION B:	precipitation or low visibility.	
OPCION C:	thunderstorms or high wind.	
OPCION D:		

PREG20078732 (9279)	Fig. 147 At which time is IFR weather first predicted at Lubbock (KLBB)?	A
OPCION A:	0100Z.	
OPCION B:	2100Z.	
OPCION C:	0400Z.	
OPCION D:		

PREG20078733 (9283)	Vertical wind shear can be determined by comparing winds on vertically adjacent constant pressure charts. The vertical wind shear that is critical for probability of turbulence is	B
OPCION A:	4 knots or greater per 1,000 feet.	
OPCION B:	6 knots or more pre 1,000 feet	
OPCION C:	greater than 8 knots per 1,000 feet	
OPCION D:		

PREG20078734 (9286)	Which type weather conditions are covered in the Convective SIGMET	A
OPCION A:	Embedded thunderstorms, lines of thunderstorms, and thunderstorms with 3/4 -inch hail or tornadoes.	
OPCION B:	Cumulonimbus clouds with tops above the tropopause and thunderstorms with 1/2-inch hail or funnel clouds.	
OPCION C:	Any thunderstorm with a severity level of VIP 2 or more	
OPCION D:		

PREG20078735 (9442)	The purpose of diluting ethylene glycol deicing fluid with water in non-precipitation conditions is to	B
OPCION A:	raise the eutectic point.	
OPCION B:	decrease the freeze point.	

OPCION C: increase the minimum freezing point (onset of crystallization).
OPCION D:

PREG20078736 (9443) — Which procedure increases holding time when deicing/anti-icing an airplane using a two-step process? — A

OPCION A: Heated Type 1 fluid followed by cold Type 2 fluid.
OPCION B: Cold Type 2 fluid followed by hot Type 2 fluid.
OPCION C: Heated Type 1 or 2 fluid followed by cold Type 1 fluid.
OPCION D:

PREG20078737 (9449) — Which is an effect of ice, snow, or frost formation on an airplane? — A

OPCION A: Increased stall speed
OPCION B: Increased pitchdown tendencies
OPCION C: Increased angle of attack for stalls
OPCION D:

PREG20078738 (9450) — Freezing Point Depressant (FPD) fluids used for deicing — B

OPCION A: provide ice protection during flight.
OPCION B: are intended to provide ice protection on the ground only.
OPCION C: on the ground, cause no performance degradation during takeoff.
OPCION D:

PREG20078739 (9451) — Test data indicate that ice, snow, or frost having a thickness and roughness similar to medium or coarse sandpaper on the leading edge and upper surface of a wing can — C

OPCION A: reduce lift by as much as 40 percent and increase drag by 30 percent.
OPCION B: increase drag and reduce lift by as much as 40 percent.
OPCION C: reduce lift by as much as 30 percent and increase drag by 40 percent.
OPCION D:

PREG20078740 (9452) — Snow on top of deicing or anti-icing fluids — B

OPCION A: need not be considered as adhering to the aircraft.
OPCION B: must be considered as adhering to the aircraft.
OPCION C: must be considered as adhering to the aircraft, but a safe takeoff can be made as it will blow off.
OPCION D:

PREG20078741 (9454) — Freezing Point Depressant (FPD) fluid residue on engine fan or compressor blades — C

OPCION A: can increase performance and cause stalls or surges.
OPCION B: could cause FDP vapors to enter the aircraft but would have no affect on engine thrust or power.

OPCION C: can reduce engine performance and cause surging and/or compressor stalls.
OPCION D:

PREG20078742 (9695) The adverse effects of ice, snow, or frost on aircraft performance and flight characteristics include decreased lift and — C

OPCION A: increased thrust.
OPCION B: a decreased stall speed.
OPCION C: an increased stall speed.
OPCION D:

PREG20078743 (9699) Test data indicate that ice, snow, or frost having a thickness and roughness similar to medium or coarse sandpaper on the leading edge and upper surface of a wing can — B

OPCION A: reduce lift by as much as 40 percent and increase drag by 30 percent.
OPCION B: reduce lift by as much as 30 percent and increase drag by 40 percent.
OPCION C: increase drag and reduce lift by as much as 40 percent.
OPCION D:

PREG20078744 (9700) What is the effect of Freezing Point Depressant (FPD) fluid residue on engine fan or compressor blades? — C

OPCION A: could cause FPD vapors to enter the aircraft but would have no affect on engine thrust or power.
OPCION B: It can increase performance and cause stalls or surges.
OPCION C: It can reduce engine performance and cause surging and/or compressor stalls.
OPCION D:

PREG20078745 (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:

PREG20078746 (9706) A severe thunderstorm is one in which the surface wind is — A

OPCION A: 50 knots 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:

PREG20078747 (9707) On the constant pressure analysis chart, satellite and aircraft observations are used in the analysis over areas of sparse data. A satellite observation is plotted using — C

OPCION A: a station circle at the cloud top location.
OPCION B: a square at the cloud top location.

OPCION C: a star at the cloud top location.
OPCION D:

PREG20078748 (9708) — A squall line is a sudden increase of at least 15 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 2 minutes.
OPCION C: 20 knots or more for at least 1 minute.
OPCION D:

PREG20078749 (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:

PREG20078750 (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:

PREG20078751 (9711) — On the constant pressure analysis chart, aircraft and satellite observations are used in the analysis over areas of sparse data. An aircraft observation is plotted using — B

OPCION A: a station circle at the aircraft location.
OPCION B: a square at the aircraft location.
OPCION C: a star at the aircraft location.
OPCION D:

PREG20078752 (9716) — The prevailing visibility in the following METAR is — A

METAR KFSM 131756Z AUTO 00000KT M1/4SM R25/0600V1000FT - RA FG VV004 06/05 A2989 RMK AO2 $

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:

PREG20078753 (9718) — The VV001 in the following METAR indicates — B

METAR KFSM 131756Z AUTO 00000KT M1/4SM R25/0600V1000FT - RA FG VV001 A2989 RMK AO2 VIS 3/4 RWY19 CHINO RWY19 $

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: