
TEMA: 0296 FLT/DSP - (CHAP. 08) METEOROLOGY AND WEATHER SERVICES

COD_PREG:	PREGUNTA:	RPTA:
PREG20085142 (9130)	Fig. 8 - 21 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:		
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PREG20085143 (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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PREG20085144 (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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PREG20085145 (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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PREG20085146 (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:		
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PREG20085147 (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 excess of 100 ft/min.

OPCION D:

PREG20085148 (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:

PREG20085149 (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:

PREG20085150 (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:

PREG20085151 (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:

PREG20085152 (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:

PREG20085153 (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.

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- OPCION B:** decreases pressure gradient force.
OPCION C: creates air turbulence and raises atmospheric pressure.
OPCION D:
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PREG20085154 (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:
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PREG20085155 (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:
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PREG20085156 (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:
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PREG20085157 (9165) What term describes an elongated area of low pressure? A

- OPCION A:** Trough.
OPCION B: Ridge.
OPCION C: Hurricane or typhon.
OPCION D:
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PREG20085158 (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:
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PREG20085159 (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:

PREG20085160 (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:

PREG20085161 (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:

PREG20085162 (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:

PREG20085163 (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:

PREG20085164 (9178) Which weather condition is defined as an anticyclone? B

OPCION A: Calm.

OPCION B: High pressure area.

OPCION C: COL.

OPCION D:

PREG20085165 (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:

PREG20085166 (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:

PREG20085167 (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:

PREG20085168 (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:

PREG20085169 (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:

PREG20085170 (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:

PREG20085171 (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:

PREG20085172 (9190)	Which type clouds are indicative of very strong turbulence?	B
OPCION A:	Nimbostratus.	
OPCION B:	Standing lenticular.	
OPCION C:	Cirrocumulus.	
OPCION D:		

PREG20085173 (9191)	What is a feature of a stationary front?	C
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:		

PREG20085174 (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:		

PREG20085175 (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:		

PREG20085176 (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:		

PREG20085177 (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:		

PREG20085178 (9196)	Which weather phenomenon signals the beginning of the mature stage of a thunderstorm?	B
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- 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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- PREG20085179 (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:
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- PREG20085180 (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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- PREG20085181 (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:
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- PREG20085182 (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:
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- PREG20085183 (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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- PREG20085184 (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:

PREG20085185 (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:

PREG20085186 (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:

PREG20085187 (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:

PREG20085188 (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:

PREG20085189 (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:

PREG20085190 (9209) Which feature is associated with the tropopause? C

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- 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:
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PREG20085191 (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:
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PREG20085192 (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:
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PREG20085193 (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 a severe turbulence layer.
OPCION D:
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PREG20085194 (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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PREG20085195 (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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PREG20085196 (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:

PREG20085197 (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:

PREG20085198 (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:

PREG20085199 (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:

PREG20085200 (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:

PREG20085201 (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:

PREG20085202 (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:

PREG20085203 (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:

PREG20085204 (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:

PREG20085205 (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:

PREG20085206 (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:

PREG20085207 (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:

PREG20085208 (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:

PREG20085209 (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:		

PREG20085210 (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 jetstream where moisture has formed cirriform clouds.	
OPCION D:		

PREG20085211 (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:		

PREG20085212 (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:		

PREG20085213 (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:		

PREG20085214 (9242)	Which measurement is reported as runway visibility?	C
OPCION A:	Visibility reported by a ground observer from the airport control tower.	
OPCION B:	Slant range visibility in the landing area of the active runway.	
OPCION C:	Distance down the runway a pilot can see unlighted objects.	
OPCION D:		

PREG20085215 (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:		

PREG20085216 (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 light turbulence.	
OPCION D:		

PREG20085217 (9269)	Figure 145 What condition is reported at Childress (KCDS)?	A
OPCION A:	Light rain showers.	
OPCION B:	Heavy rain showers began 42 minutes after the hour.	
OPCION C:	The ceiling is solid overcast at an estimated 1,800 feet above sea level.	
OPCION D:		

PREG20085218 (9270)	Figure 145 What condition is reported at Dallas (KDAL)?	C
OPCION A:	The tops of the overcast is 10,000 feet.	
OPCION B:	Temperature/dewpoint spread is 8°F.	
OPCION C:	Altimeter setting is 30.07.	
OPCION D:		

PREG20085219 (9272)	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?	B
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:		

PREG20085220 (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:		

PREG20085221 (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:**
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PREG20085222 (9708) A squall line is a sudden increase of at least 15 knots in average wind speed to a sustained speed of C

- OPCION A:** 25 knots or more for at least 1 minute.
 - OPCION B:** 20 knots or more for at least 2 minutes.
 - OPCION C:** 20 knots or more for at least 1 minute.
 - OPCION D:**
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PREG20085223 (9712) Clouds or obscuring phenomena aloft, through which blue sky or higher sky cover is visible, is known as a C

- OPCION A:** thin overcast.
 - OPCION B:** partial obscuration.
 - OPCION C:** "transparent" sky cover.
 - OPCION D:**
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