

March 29 Weather Notes

Atmospheric Pressure

Pressure caused by the _____ of air above an area.

Pressure _____ with increasing height above Earth.

! Square inch column of air weight _____ pounds.

Air Pressure

Air Pressure is measured with a barometer in _____.

Average barometric pressure at sea level is 1013.25 _____ mb or _____ inches of mercury.

_____ pressure – cold dense air that creates _____ pressure on the barometer.

_____ pressure – warm air is less _____ creating less pressure on the barometer.

High pressure

As air cools, it become _____ and sink toward the Earth's surface spinning _____.

Low Pressure

As air warms, it become _____ and rises above the Earth's surface spinning _____.

Weather in High and Low pressure

High Pressure

Low Pressure

Isobars

A line connecting points of equal _____.

Measured in _____ mb.

One mb. is equal to _____ inches of mercury.

Low pressure in storms

_____ mb.
_____ mb.

Air Masses

Large body of air that has relatively uniform _____ and _____.

Originate over land _____ over water _____.

Cold air masses tend to approach from _____.

Warm air masses tend to approach from _____.

Frontal Movement

Cooler air masses _____ are more dense and flow toward areas that are _____ dense, warm and _____.

_____ pressure areas move into _____ pressure areas.

Front

The boundary between _____ air masses.

Classified by which type of air mass (cold or warm) is replacing the other.

Map symbols point in direction front is _____

Cold Front

A cold air mass is _____ a warm air mass.

Air behind the front is colder and _____. Pressure _____.

Moist air is pushed up over the _____ air. _____ and _____ form along leading edge of front.

Warm Front

A warm air mass is replacing a _____ air mass. Air behind the front is _____ and _____. Pressure goes _____.

Slow moving, gradual rise of warm air over _____.

Widespread, continuous _____ occurs along and ahead of the front.

Stationary Front

A boundary between two different air masses, neither is _____

Enough to replace the other. Light _____ over several days.

Occluded Front

Two cold air masses converge on a _____ air mass.

Occurs when a fast-moving cold front overtakes a _____ front pushing it up and over _____ air.

_____ form along the front. After frontal passage the sky is _____ and _____.

Back Door Cold Front

Approaches from the east or northeast. The term _____ is most commonly used in the northeast U.S. when cool Atlantic maritime air moves in from the east and replaces _____ continental air.

Weather Instruments

_____ measures atmospheric pressure in _____.

_____ measures wind speed in _____.

_____ measures temperature in _____.

_____ carries instruments to high altitudes.

_____ helps determine wind direction on weather maps.

_____ measure wind direction in _____.

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