

### 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

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Low Pressure

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#### **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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