

## KEY THINGS TO KNOW ABOUT ATMOSPHERIC PRESSURE:

How do changes in weather related to changes in pressure?  
From his vantage point in England in 1848, Rev. Dr. Brewer wrote in his "A Guide to the Scientific Knowledge of Things Familiar" the following about the relation of pressure to weather:

### The FALL of the barometer (decreasing pressure)

- \* In very hot weather, the fall of the barometer denotes thunder. Otherwise, the sudden falling of the barometer denotes high wind.
- \* In frosty weather, the fall of the barometer denotes thaw.
- \* If wet weather happens soon after the fall of the barometer, expect but little of it.
- \* In wet weather if the barometer falls expect much wet.
- \* In fair weather, if the barometer falls much and remains low, expect much wet in a few days, and probably wind.
- \* The barometer sinks lowest of all for wind and rain together; next to that wind, (except it be an east or north-east wind).

### The RISE of the barometer (increasing pressure)

- \* In winter, the rise of the barometer presages frost.
- \* In frosty weather, the rise of the barometer presages snow.
- \* If fair weather happens soon after the rise of the barometer, expect but little of it.
- \* In wet weather, if the mercury rises high and remains so, expect continued fine weather in a day or two.
- \* In wet weather, if the mercury rises suddenly very high, fine weather will not last long.
- \* The barometer rises highest of all for north and east winds; for all other winds it sinks.

### The barometer UNSETTLED (unsteady pressure)

- \* If the motion of the mercury be unsettled, expect unsettled weather.
- \* If it stand at "MUCH RAIN" and rises to "CHANGEABLE" expect fair weather of short continuance.

\* If it stand at "FAIR" and fall to "CHANGEABLE", expect foul weather.

\* Its motion upwards, indicates the approach of fine weather; its motion downwards, indicates the approach of foul weather.

These pressure observations hold true for many other locations as well but not all of them. Storms that occur in England, located near the end of the Gulf Stream, bring large pressure changes. In the United States, the largest pressure changes associated with storms will generally occur in Alaska and northern half of the continental U.S. In the tropics, except for tropical cyclones, there is very little day-to-day pressure change and none of the rules apply.

With surface weather map below; draw the flow with arrows representing the direction of the wind: