# Fronts

By 2/O John Jaromahum

#### Front

> A front is defined as the transition zone between two air masses of different density. Fronts extend not only in the horizontal direction, but in the vertical as well. Therefore, when referring to the frontal surface (or frontal zone), we referring to both the horizontal and vertical components of the front.

### Airmass

Click Video

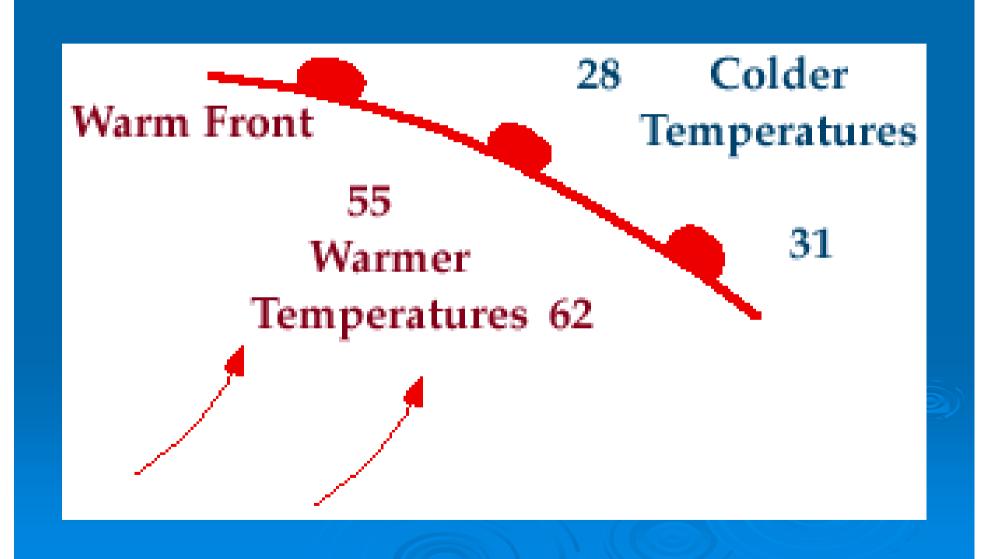
#### Warm Front



A warm front is defined as the transition zone where a warm air

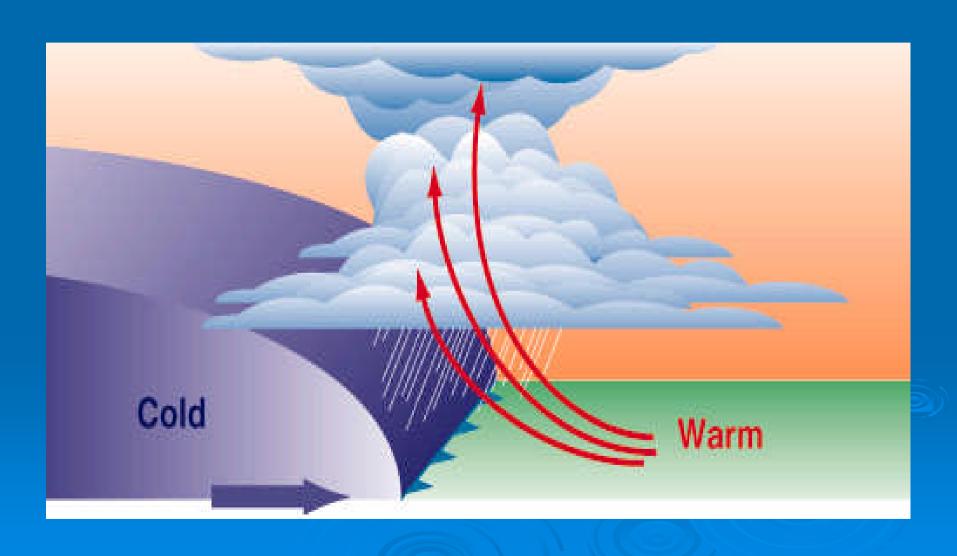
mass is replacing a cold air mass



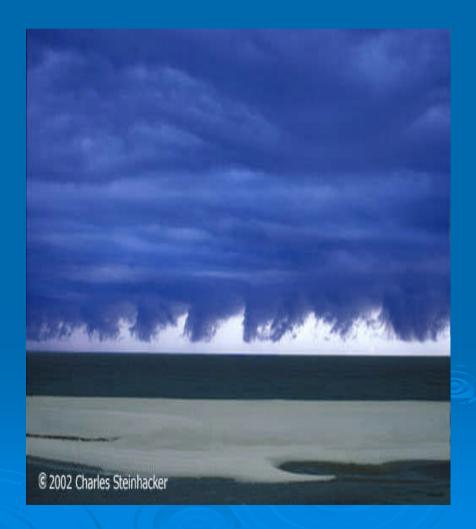


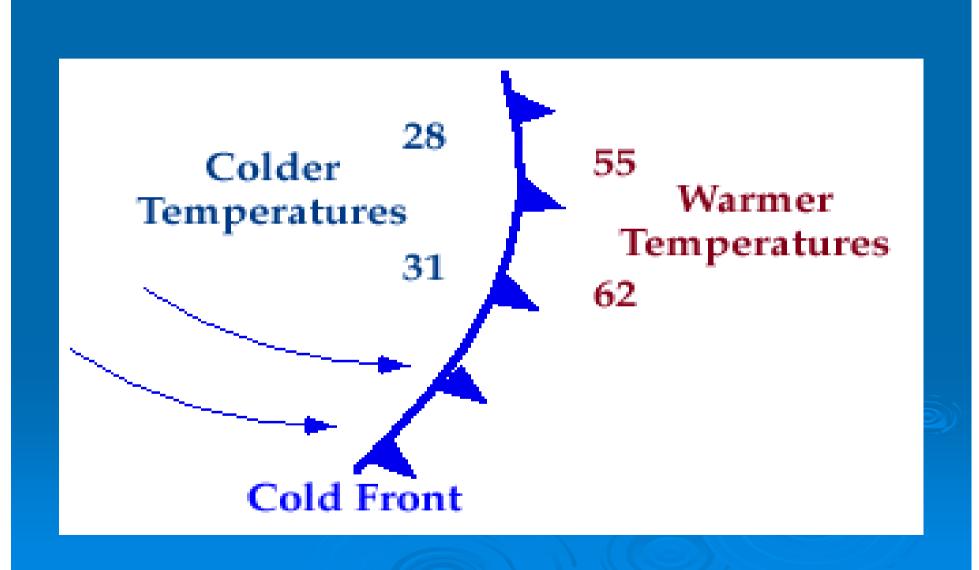
	Before Passing	While Passing	After Passing
Winds	south-southeast	variable south-southwest	
Temperature	cool-cold, slow warming	steady rise warmer, then steady	
Pressure	usually falling	leveling off	slight rise, followed by fall
Clouds	in this order: <u>Ci, Cs</u> , As, <u>Ns</u> , St, and fog; occasionally <u>Cb</u> in summer	stratus-type clearing with scatte  Sc; occasionally in summer	
Precipitation	light-to-moderate rain, snow, sleet, or drizzle	drizzle or none	usually none, sometimes light rain or showers
Visibility	poor	poor, but improving	fair in haze
Dew Point	steady rise	steady	rise, then steady

## Cold Front



- A cold front is defined as the transition zone where a cold air mass is replacing a warmer air mass.
- Cold fronts generally move from northwest to southeast. The air behind a cold front is noticeably colder and drier than the air ahead of it. When a cold front passes through, temperatures can drop more than 15 degrees within the first hour.





	Before Passing	While Passing	After Passing
Winds	south-southwest	gusty; shifting	west-northwest
Temperature	warm	sudden drop	steadily dropping
Pressure	falling steadily	minimum, then sharp rise	rising steadily
Clouds	increasing: <u>Ci</u> , <u>Cs</u> and <u>Cb</u>	<u>Cb</u>	<u>Cu</u>
Precipitation	short period of showers	heavy rains, sometimes with hail, thunder and lightning	showers then clearing
Visibility	fair to poor in haze	poor, followed by improving	good, except in showers
Dew Point	high; remains steady	sharp drop	lowering

