SNOW OVERVIEW

Snow is very similar to rainfall, and is another important aspect of the weather and climate system. Climate is weather averaged over decades. Beyond the important impacts that rain have in rejuvenating regional water supply, snows that fall throughout the winter do not melt until the spring. When they do melt, they provide water to rivers that provide a drinking water supply for cities downstream. When the amount of snow in a region decreases throughout the entire winter season, the amount of water available in the region that spring, for growing crops, watering animals, also decreases. Therefore, snowfall plays an important role both in climate and in society.

Snowflakes are all unique and their shape and size are dependent, in part, on the amount of moisture in the air and the temperature. That's why some snowfalls have snow that packs together well, while others do not; the 'wetter' the snow, the better it packs.

When it is cool enough for snow to remain through the summer months and into the next winter, it becomes compacted under the weight of the new snow. This pattern repeating for years is how glaciers form in mountains and in Arctic and Antarctic climates. The extent of glacial cover in a region is one measure of if a climate is getting warmer or cooler. If the ice extent is growing, climate is getting cooler, and if ice extent is shrinking, climate is getting warmer. The thickness of the glaciers is also a measure of climate. Currently, scientists are learning how to measure thickness of remote glaicers, and evidence already shows that the extent of ice in numerous glaciers is shrinking. Some glaciers in some regions are growing, but the vast majority of glaciers are shrinking.

Another way that climate scientists measure snow is in the amount of time that snow covers the ground in a region in days. In many regions of the United States, the number of days snow covers the ground is decreasing.