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? WHY THE WEATHER ?

Dr. Charles F. Brooks,  
Secretary, American Meteorological Society.  
Tells about:

THE HEIGHTS OF CLOUDS.

The question is often asked: How high are the clouds? Each type has its own range of altitude, dependent upon atmospheric conditions. In general each type is lower in winter than in summer, lower over humid regions than over deserts, and lower with increase in latitude. The higher the humidity of the air, the lower the cloud levels, because moisture-laden air does not have to ascend so high to reach its dewpoint and condense its vapor.

Fog is a cloud in contact with the ground. Next above is the scud region, from 300 to 1,000 feet up in the air, with its low-flying clouds which are seen under the raining nimbus clouds. The nimbus, formless, thick masses, from which rain is falling, have an average base altitude of three-fifths of a mile. The stratus is another low-flying cloud, fog-like in character, often merging into a nimbus, and again clearing away like lifting fog. In some cases it is the velo cloud, which is originally a thick fog layer the lower stratum of which has been dissipated by warming.

The beautiful fleecy cumulus clouds are formed at varying heights, their bases ranging in altitude from 2,000 to 4,000 or more feet, and their tops averaging perhaps twice as high. In their thunderstorm proportions, when they have become cumulonimbus, their tops usually soar to a height of three or four miles, sometimes to seven or more miles.

The highest of all clouds, the cirrus and cirrus stratus, so high that they are of snow, even in summer, are found at levels from two to seven or more miles high. Clouds from intense volcanic eruptions have been observed at still greater heights, some in northern and central Europe about 50 miles high during the few years following the great Krakatoa explosion of 1883.

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(Tomorrow: Winds Aloft)

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