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A Science Service Feature

? WHY THE WEATHER ?

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

MOUNTAIN CLOUDS

The mountains have their characteristic clouds, chiefly because they stand as barriers in the paths of currents of moist air. The air must rise that it may ride over the summits, and this rising causes a reduction in temperature, often to below the dewpoint, which results in condensation as clouds. For this reason the rainfall and snowfall on the windward slopes of mountains is always greater than on the leeward slopes, especially where the winds blow from over the ocean or other large bodies of water.

From the same causes thunderstorms form frequently on the windward side of mountains. Warm, moist air is thrust upward in cumulating masses, condensation is very rapid and violent thunderstorms follow. One of the most severe forms of thunderstorm, however, occurs on the leeward slope. Thunderclouds pour cold air over the summit onto the warm air over slope and valley beyond, and a thunderstorm of great violence may follow the overturning because of the great instability so produced. The mountaintthunderstorm is one of the really appalling phenomena of nature, so frequent are the lightning bolts and so continuous the crash and roll of thunder.

(Tomorrow: Thunderstorm's Squallcloud)

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