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? WHY THE WEATHER ?

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By Charles Fitzhugh Talman,
Authority on Meteorology.

WHY CLOUDBURSTS?

The earlier scientific attempts to account for the tremendous downpours to which the name "cloudburst" is applied assumed that the water was due to rapid condensation in the vortex of a tornado or waterspout, and hence the name "waterspout" was formerly often applied to a cloudburst, even when it occurred far from any body of water.

The rainfall attending a tornado is doubtless sometimes of cloudburst intensity, but the majority of cloudbursts are now believed to be the product of thunderstorms. Violent uprushing currents of air always occur at the front of an advancing thunderstorm. Moisture in the air drawn into the storm by these currents condenses as it rises, on account of the cooling of the air by expansion, but the upward blast is so strong that for a time the water is prevented from falling as rain. If the rising currents are weakened at some point, a large accumulation of water is permitted to fall at one time.

This is especially likely to occur when a traveling thunderstorm, which is fed by rising streams of air from overheated ground, passes over the cooler surface of a mountain, so that its supply of warm air is temporarily cut off. This explains the special frequency of cloudbursts in mountainous regions.

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