

A Science Service Feature

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? WHY THE WEATHER ?

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WHAT IS A CLOUDBURST?

The name "cloudburst", commonly applied to an extremely heavy local downpour of rain, doubtless tends to keep alive the erroneous idea that clouds sometimes burst and discharge their entire contents suddenly upon the earth. This notion is very old. It is discussed at considerable length in a Latin work by one Outhof, published at Groningen, Holland, in 1721, in which the author records a large number of supposed instances of the phenomenon. These excessive downpours have also sometimes been referred to as "waterspouts", and some scientific writers have ascribed them to the action of waterspouts or tornadoes in condensing and carrying aloft in their vortices great quantities of rain, which are allowed to fall suddenly when the whirling storm is broken up or weakened; as, for example, by striking the side of a mountain.

It is now generally believed, however, that most cloudbursts are merely violent thundershowers. The rising air currents of a thunderstorm may be so strong at times as to prevent rain from falling and their sudden weakening at any point would permit a large accumulation of water to fall at one time. As the up-currents in many thunderstorms are due to excessive heating of the ground, their slackening and the consequent deluge of water would be especially likely to occur when the storm passes over the cooler surface of a mountain, and this would explain the special frequency of cloudbursts in mountainous regions.

Of course a heavy downpour of rain produces more striking effects among mountains than over level land because the falling water is concentrated in valleys and gulleys, producing sudden floods, which are sometimes very destructive to life and property.

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