

SUPPLEMENTAL SERVICE TO BE USED TO MEET SPECIAL WEATHER CONDITIONS IN YOUR CITY

(These notes may be used instead of regular Why The Weather releases on particular days or they may be incorporated in weather stories which you prepare. Credit Dr. Brooks with authorship or not just as you prefer.)

? WHY THE WEATHER ?

By Dr. Charles F. Brooks
of Clark University.

HOW HAIL IS MADE

Occasionally an icy wind sliding over us at a height of two miles is the cause of a thunderstorm accompanied by hail in such quantities as to cover the ground like a winter snowstorm. The only warnings may be the formation of a double layer of clouds, as the cold mass comes in contact with the warmer air above and below it, and perhaps a rise in barometer due to the greater weight of a cold layer of air a mile thick, as compared with that of the warmer air which it displaced.

From the lower sheet tall clouds known as turreted alto-cumulus raise their rounded tops, so high, perhaps, that a mile above their base they flatten out against the ceiling where the cold air meets the warm above. Each is a column relatively slender at the middle, with spreading base and top. Sometimes a row of them extends across the sky like a titanic balustrade.

These clouds are usually densest in the early morning, after the cooling overnight, but the morning sun evaporates and thins them, usually to such an extent that the hot rays penetrate through to the ground and warm it and the lower air. Ascending currents quickly form and, moving rapidly, penetrate the cold layer, where the heavier air about them forces them violently upward. If the ascending air is humid intense condensation takes place and a thunderstorm forms. The rain-drops, carried by the uprushing air high aloft into the intense cold, mix with the abundantly forming snow and make hail, which, becoming too heavy for the updraughts to sustain, falls to the earth. The air descending with the hail is kept so cold that snow may accompany it, and on higher land may rarely even reach the ground.

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