

CLOUDS

Clouds are classified by a system developed in 1802 by Luke Howard that uses Latin words to describe the appearance of clouds as seen by an observer on the ground. The table below summarizes the four principal components of this classification system:

LATIN ROOT	TRANSLATION
cumulus.....	heap
stratus	layer
cirrus.....	fiber
nimbus.....	rain

The present-day classification adopted by the World Meteorological Organization further defines clouds by their distance from the ground.

High-Level Clouds (bases above 6 km)

Cirrus • Cirrocumulus • Cirrostratus

Mid-Level Clouds (bases between 2 and 6 km)

Altostratus • Altostratus • Nimbostratus

Low-Level Clouds (bases below 2 km)

Stratocumulus • Stratus • Cumulus

Clouds with Vertical Development

Fair weather cumulus • Cumulonimbus



BILL MORGENSTERN

Fair weather cumulus clouds or cumulus humilis. Cloud forms result from small local scale convection that produces thermals of air. The thermals, rising warm air currents of varying scale, eventually reach a cooler layer where saturation and condensation occur forming the puffy, cotton ball clouds.



GABRIELLE SHUPE

Stratocumulus. Virga extending almost to the ground from hovering stratocumulus clouds.



DAVID PARKER

Altostratus undulatus. Cloud deck illuminated underneath by a setting Sun.



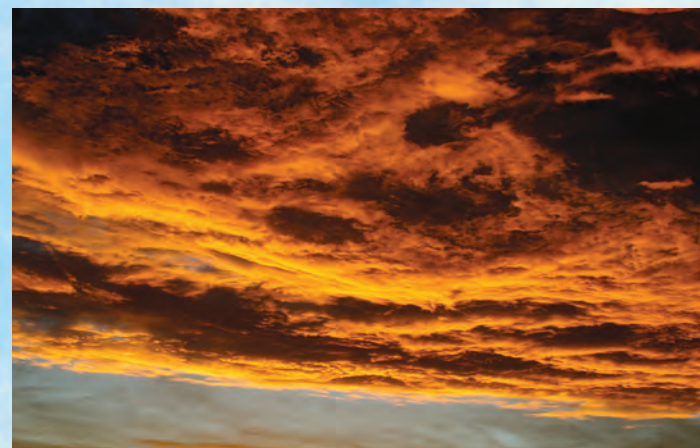
JOHN BROWNE-STRYKER

Cirrocumulus. Cloud streets with a cloud corona, diffracted sunlight seen as a bright spot.



MARK PAULSON

Mammatus. Near sunset, the longer wavelengths of sunlight illuminate the cloud base with a pinkish tinge. The pouches are formed by heavier droplets falling through the cloud base toward the drier, clear air layer beneath. The mammatus cloud form is often associated with severe thunderstorms.



JONI MEHUS

Stratocumulus. Cloud deck near sunset.



TARA MCGINLEY

Alto cumulus. Clouds forming a "mackerel sky" with a corona



JOHN WARTMAN

Cumulonimbus. Clouds clearly exhibiting rain shafts



GABRIELLE SHUPE

Stratocumulus. Clouds display the many hues of sunset



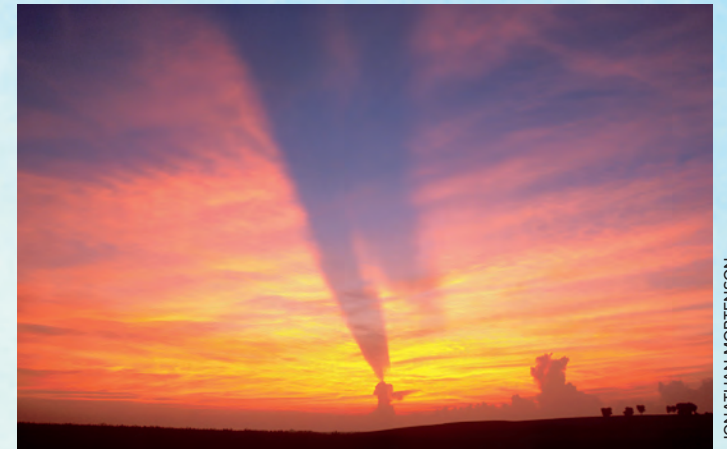
BILL MORGENSTERN

Chaotic sky. Chaotic sky composed of multiple cloud elements. Alto cumulus and altostratus are evident in the distance, while the foreground shows forms of cirrus fibratus (feathery high clouds made of ice crystals)



TIM CONNER

Cumulonimbus. Violent looking storm clouds with an arcus underneath and the appearance of strong down drafts



JONATHAN MORTENSON

Cumulonimbus and cirrus. Distant anvil towers (cumulonimbus) outlined at sunset, with strands or filaments of cirrus that have blown off the top and are caught in the wind shear aloft and carried downstream



ALLEN BLAKE SHELDON

Cumulonimbus. The base of this storm cloud shows formation of arcus underneath, indicating strong vertical turbulence



JONI MEHUS

Cumulus. One of the most classic summertime clouds



ERIK HAHN

Alto cumulus and altostratus. Illuminated by sunset, the cloud bottoms are over one mile high. The gray clouds on the right are lower and sunlit