

The forms and features of medium clouds

The base of medium clouds is 2 kilometres or more above the ground. In the tropics, the top of medium clouds can reach 8 kilometres high. The lower portion of medium clouds is generally water droplets, whereas the upper portion is composed of super-cooled water droplets and ice crystals.

Medium clouds are categorized into altocumulus and altostratus. Alto is derived from the Latin word *altus*, meaning "high". Cumulus means "heap" or "pile", and "stratus" means to "stretch" or "extend".

Altocumulus clouds have a fragmented layout, and are white, greyish, or greyish white in colour (Figure 1). The clouds often take the form of lumps, sometimes appearing as pieces or groups of thin cracked tiles (Figure 2) or cracked bricks (Figures 3 and 5). Altocumulus can also appear in the form of successive rows of long waves (Figure 4). They sometimes come with shading (Figure 5) as a result of scattered diffused sunlight. For regularly arranged lumps of altocumulus, they usually have an apparent width in visual angle of between one and five degrees.

Altostratus is greyish or faintly bluish. It appears in the form of layer clouds or sheets of clouds, covering all or part of the sky. Thin (but not too thin) altostratus is like ground glass. While sunlight may pass through, much of it is diffused. The sun's appearance is vague with a fairly blurred outline (Figure 6), even though the sun's position can still be determined. An object's shadow cast on ground does not have a clear outline. Unlike cirrostratus which is high clouds that contain ice crystals, altostratus is largely made up of water droplets and super-cooled water droplets and hence does not give rise to halo.



Figure 1: Altocumulus



Figure 2: Altocumulus



Figure 3: Altocumulus
(Courtesy of Ms M.Y.MAK)

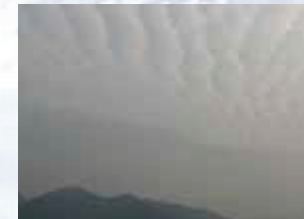


Figure 4: Altocumulus
(Courtesy of Mr S.T.CHOW)



Figure 5: Altocumulus
(Courtesy of Mr C.H.CHOW)



Figure 6: Altostratus
(Courtesy of Mr C.H.CHOW)