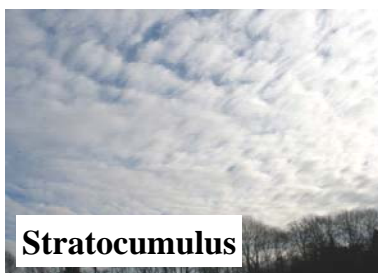




Cirrus



Stratocumulus



Stratus



Nimbostratus



Cumulo nimbus



Cumulus

Although sailors can use weather forecasts from many possible sources, looking up at the clouds, combined with reading the barometer, can yield a lot of useful information. It has the benefit of being both local and immediate.

So what can we tell from clouds? First it's useful to know the basic shapes. At the simplest level, there are two types – flat stratus cloud, and puffy cumulus cloud. Stratus cloud occurs in layers at various heights, and indicates that the atmosphere is stable, with little vertical air movement. Cumulus cloud occurs when there is a vertical movement of air, and the atmosphere is unstable. Small cumulus cloud can occur at any height. Glider pilots and soaring birds look for the upcurrents under large cumulus cloud. A large cumulus cloud with a dark base is likely to cause strong upcurrents with large wind shifts around the base. They are best avoided by dinghy sailors, and sometimes by bigger boats. Our boat once tacked itself under a cloud like this, with no movement of the wheel we were heading at 90 degrees to the original course.

Clouds are also defined by height – cirrostratus is a very high sheet of thin white cloud which can form a halo round the sun or moon; altostratus is high layered cloud; altocumulus is a high layer of small cumulus, sometimes forming ripples, known as a mackerel sky.

Cirrus cloud is the high, white, curled, streaks of cloud known as mares' tails. With a falling barometer, this usually indicates the approaching warm front of a depression with associated veering wind and rain. It can be followed by lower levels of altostratus, stratus and nimbostratus cloud. Usually this brings rain; nimbus just means bearing rain. After the warm front there is broken cloud, sometimes with light rain and poor visibility. Then comes the cold front, which at worst may be thundery cumulonimbus with heavy rain and squalls. Finally after the cold front we are back to

cumulus, with clear skies and showers, and stronger veering winds.

Low-level clouds (base 0 - 2 km high)

Stratus (S) - extensive, featureless, shallow cloud sheet, can yield drizzle or light rain

Stratocumulus (Sc) - shallow cloud sheet, broken into roughly recurring masses of cumulus, may drizzle or snow

Cumulus (Cu) - separate, hill-shaped puffy clouds, with level bases. Usually fair, but may bring showers after a cold front.

Cumulonimbus (Cb) - very large, high (up to 10km) cumulus, with dark bases and anvil shaped top. Can bring thunder, lightning, squalls and heavy rain

Medium-level clouds (base 2 - 4 km high)

Altostratus (As) - shallow cloud sheet with roughly regular patches or ripples of small rounded clouds. Usually fair weather

Altostratus (As) - featureless, thin, translucent cloud sheet. Usually fair weather.

Nimbus (Ns) - extensive, very dark cloud sheet, usually yielding precipitation

High clouds (base 5 - 15 km high):

Cirrus (Ci) - streaky, white, feather-like cloud. Indicates an approaching depression

Cirrocumulus (Cc) - shallow, more or less regular patches or ripples of cloud. Fair weather.

Cirrostratus (Cs) - shallow sheet of largely translucent cloud. Fair weather.