

Have you ever heard the old saying, "Red sky at night, sailor's delight. Red sky at dawning, sailors take warning"? Versions of this message can be found in Shakespeare's writings and in the Bible! When you consider that people have been building and using some kind of watercraft since the Ice Age, studying the heavens when afloat has always been an integral part of a sailor's navigation training.

More than once, weather conditions have decided the outcome of historical events. Severe storms proved that the Spanish Armada was not so "Invincible" after all. When the King of Spain, Phillip II, launched his celebrated fleet against England in 1588, the sailors were plagued almost from the outset by storms and fierce winds that wreaked havoc on their battle plans -- and ultimately sank most of the ships that escaped the guns of Sir Frances Drake's Navy.

Today, boaters have many sources of information to help predict the weather -- radio and TV, and the excellent internet sites that send alerts to cell phones and mobile devices. Checking the weather before you leave for a day of boating is always a good idea, but it will not keep weather problems from developing. Weather changes generally come from the west, so continue to keep your eye on the clouds, learn to recognize early warning signs, and know when to head for the safety of the harbor.

Especially during the summer months, thunderstorms and rain squalls can develop and become dangerous very quickly. Being aware of the appearance of the sky, the kind and movement of the clouds, and the direction of the wind will help you assess weather conditions while on the water.

## Mare's Tails and Mackerel Scales...

The cloud classification system -- around since the early 1800's -- has been updated by modern weather specialists to include virtually any kind of cloud that might occur. Understanding the Latin names helps to identify them: *Cumulus* means piles or a heap; *Stratus* means layerlike or sheetlike; *Alto* means high; *Nimbus* means rain; and *Cirrus* means a lock of hair or curl. Sometimes the names are combined (nimbostratus) which even further defines their associated weather patterns.

Here are some photos of clouds and brief descriptions of weather conditions they might bring if you see them while out on the water.



STRATUS clouds form a continuous layer close to the ground, may produce a light drizzle.



CUMULUS clouds have flat bottoms and puffy tops. No rain if they stay separate.



NIMBOSTRATUS are darker than Stratus clouds and can produce steady rain.



ALTOCUMULUS are small, puffy clouds. May signal afternoon thunderstorms.



CIRRUS clouds -- mare's tails -- are high, thin and wispy; may indicate an approaching storm.



CIRROSTRATUS clouds form a thin veil over much of the sky. If a halo is seen around the sun, rain is likely on the way.



CUMULONIMBUS clouds -heavy rainfall, lightning and thunder. Storms may not last long but can form tornadoes.



GREENISH SKY is often seen at the leading edge of storms. May indicate hail; conditions right for tornado to form.