

The Weather Watch

Cold Low's

June, 2005

It is not really appreciated that June is usually one of the more dismal, wet, windy and cool months of the year in our neck of the woods. It seems strange that April and May can be so good at times, only to find that June seems like the middle of winter again. This June has been no exception, and for boaters desperately looking for a Spring outing, has been a little frustrating.

The reason for this state of affairs is often due to the establishment of a "Cold Low" over the southern Gulf of Alaska, offshore of the Queen Charlotte Islands. The culprit is cold water, which cools the air mass above it, makes it denser and results in a dip in the upper pressure level contours. The 500 mb level (approx. 18,000') which is the middle of the atmosphere dips down, and in effect creates a Low or a deep depression – the influence of which can be seen up into the 250 mb level as well. The jet stream is affected, and essentially pumps cool, moist, and often unstable Maritime Arctic air into our part of the world. Cold Low's are long-lasting – they can stay rooted in place for weeks, dependent as they are on water temperature.

For boaters -- and apart from the rain and cool temperatures – the most important watchword is to be very careful about forecasts. The nature of the Low is that it irregularly pumps pulses of moist and unstable air which may or may not be a formal "front" on the weather map, or may just be a slight pressure trough which serves to create a local line of convergence instability (remember the thunderstorms this month!). These pulses are very difficult to forecast, and their characteristics can change during transit. Good idea is to check the 500 mb chart as well as the surface chart before you make a decision to head across the Strait in marginal weather. If in doubt, call a forecaster on the hot line!

See you on the water after the first week of July, when Cold Low's are usually gone for awhile, and are replaced by High's moving in from the southwest which deflect the jet stream further to the north.

P/Cdr John Northey AP