

What causes a Catalina Eddy?

Although the diagram below doesn't show it, the Low pressure center over Las Vegas is sucking in air in a counter-clockwise spiral. It's hot, a "thermal low," so the warm air rises (convection), and that creates space between air molecules that the Eastern Pacific High pressure center wants to "fill in": that is, wind always blows from high to low pressure to equalize things. It's just like when we're under pressure, we want release.

High pressure brings clear air, but the cloudiness of Catalina eddies are caused by the cold water underneath. When air cools off to the local dew point temperature, condensation makes clouds. (Clear air has invisible water vapor that is measured as "relative humidity.")

The Surflife website where I found the diagram called this weather type "dreaded," but I really like it as it's a change from our smoggy heat, and less U.V. (although U.V. can penetrate clouds). It saves us a trip to coastal Oregon if we have their weather for half a day for variety. :-)



Image: Sam Pepke

Diagram if from <http://www.surflife.com/community/whoknows/whoknows.cfm?id=1018>