

Sundowner Winds – What are they?



Sundowner Winds push smoke and flames downslope (to left, as pictured) on the Whittier Fire, July 14th, 2017

Range and the coastal areas to the south.

Higher pressure (falling air) to the north forces air into the mountains where it is squeezed through gaps and passes. The air falls down the mountain slopes, picking up speed and heat as it descends toward the coast. Temperature swings of 15 – 20 degrees Fahrenheit are not uncommon with Sundowner winds.

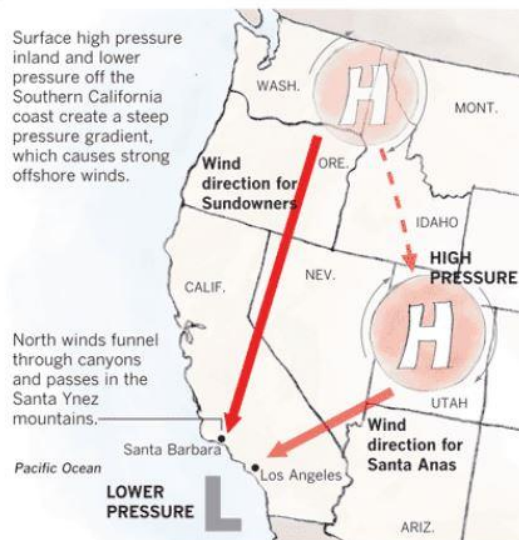
Speeds of sundowner winds are determined by the magnitude of the pressure difference across the mountains. This is usually measured at Santa Maria to the north and Santa Barbara to the south. Weak Sundowners occur when the difference in pressure is 2-3 millibars (a way to measure air pressure) and gusts to 25-35 mph are common. Moderate to strong Sundowners with wind gusts as high as 65 mph occur when the pressure difference reaches 5 to 7 millibars.

Over the Santa Barbara County Coast of Southern California, warm down sloping winds sometimes occur during the early evening hours. These winds, called Sundowners, are a compression wind, a warm and dry flow of air that heats up and dries out as it travels down the slopes of the Santa Ynez Mountains. The Santa Ynez Mountain range runs parallel to the Santa Barbara County coast. During fire season or during active fires, Sundowner winds cause concern for firefighters since they bring a rapid change in wind direction and speed along with much lower relative humidity.

Sundowner winds are caused by the difference in pressure between interior areas north of the Santa Ynez

Sundowners and Santa Anas

The winds that fanned fires in Santa Barbara are caused by high pressure that shifts to the southeast and drives Santa Ana winds.



Source: National Weather Service, Oxnard office

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