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Two university scientists in Wisconsin and Pennsylvania conducted temperature studies during the three-day period following the 9/11 terrorist attacks when all aircraft over the United States were grounded. They found the average temperature between night and day, the diurnal temperature, during this period to be three degrees higher than normal, confirming the effect of persistent contrails on surface temperature. You would have to conclude that jet aircraft traffic, particularly when persistent contrails result, is a weather modifier, whether intentional or not.

Volume

It is then instructive to examine the amount of air traffic passing over the North Coast. There is a VHF Omni Directional Range Tactical Air Navigation Center (VORTAC) located in the sky above eastern Mendocino County. This is not a tangible entity but a navigational point on a map that pilots use as they exit and enter Bay Area airports. It is also used by pilots on transcontinental and intercontinental flights.

Pilots aim for the Mendocino VORTAC so that on any given day, there are hundreds of planes passing overhead. Many of these planes departing San Francisco and Oakland airports reach cruising altitude where contrails can form as they pass into Mendocino and Lake Counties.

I have enclosed a map provided by the FAA showing the number of flights passing through Lake and Mendocino Counties on July 17, 2003, a date picked at random. On this day, there were more than 400 flights, many criss-crossing, although at different altitudes. If weather conditions are right on this or any other typical day, people are going to see a lot of contrails.

There is another VORTAC due east along Interstate 5 that has even heavier traffic than the Mendocino VORTAC. Depending on the direction of the winds, contrails from these aircraft can also drift westward into the North Coast counties.

I have also enclosed two more maps showing arrivals and departures at Bay Area airports on July 17. If incoming traffic using the Point Reyes VORTAC is significant, air traffic controllers will pull them planes of this approach and route them northward along the Mendocino coast. These maps demonstrate this occurring on July 17.

From this information we can conclude that the North Coast is a highly traveled hub for aircraft.

While this traffic is high, it is not atypical according to the FAA, commercial and military pilots I have spoken to who travel in this area and small aircraft pilots who fly into and out of airports on the North Coast. None of these sources could anecdotally confirm either a greater number of planes or corresponding contrails in the sky.

Nonetheless, it is a huge volume and when weather conditions are right, people will notice both the planes and the contrails.

Military Exercises

Navy and Air Force planes do travel through and off the North Coast in training exercises, routine patrols and in support of our armed services overseas. I have spoken with both Navy and Air Force personnel at Travis Air Force Base and at the Pentagon in Washington. I am satisfied that they are not conducting experiments of any kind nor are they engaged in any weather modification programs, other than by contributing to the volume of air traffic in the region, which in turn has been shown to affect temperature.