

The Vineyard Press

Hey Vineyard! What's up?



VCMS is excited about our partnership with NASA in assisting the agency with their continued research of clouds and the effect of the cooling and/or the heating of planet Earth. NASA has tapped a handful of 7th graders and the entire 6th grade class at Vineyard, and each day they provide ground observations of cloud cover over the campus and surrounding vicinity. Our students are working with the most sophisticated equipment and people in the world in order to determine the effects clouds and contrails have on the temperature of our planet. The students will also work on cloud observation data acquired by NASA from our sister planet Venus, as well as Saturn's moon Titan, all of which have active weather.

VCMS students will use one of three NASA weather based satellites dedicated to this study by observing daily the sky at exactly the same time one of the satellites passes directly over Lodi. Students will determine what they see from the ground and compare their observations to what the satellite(s) have seen from above. This is done using cloud charts and the school based weather station in order to provide additional temperature and humidity readings. Contrails left by jet aircraft at high altitude are very important to NASA and will also be reported. Despite the incredible details provided by these billion dollar satellites, there is a need for ground truth observation provided by our students, similar to what special forces operatives provide our sophisticated military.

What is really exciting about this project is that NASA sends our daily observations back to us, along with their satellite data and photographs, and they require us to verify the match or mismatch between ground observations seen on the VCMS campus and those seen from outer space. In two instances in January, NASA commented to Mr. Oliver that our ground readings were of significant findings comparing early morning fog burn off throughout the valley and temperatures seen in Lodi and Fresno. Essentially, the satellites "thought" they had seen low fog over Lodi, but our observers at VCMS saw only high altitude Cirrus clouds. The satellite was correct and verified through photos that low fog was still occurring from Stockton south to Bakersfield— that's ground truth data!

For our efforts in January, NASA recognized VCMS to the entire world as the 7th top atmospheric Observation School in the world for our accurate and consistent readings, an honor we share with schools and universities from China, Taiwan, France, Columbia, Argentina, Germany, Albania and some here in the United States.

KCRA Channel 3 meteorologist Dirk Verdoorn commented that this type of work lacks the excitement and glory of video games, daytime dramas and reality shows, but it is real "rocket science" and real world science that will prepare our students for real jobs in an increasingly globally competitive world. Nice work Mr. O and to our aspiring astronauts and scientists in the 6th and 7th grades. *(Note: Thank you also to John Vernon for his help with getting this program "off the ground" at VCMS!)*