NASA Helps Show Air Pollution Controls Are Working

NASA satellite helped collect 15 years of Southern California air pollution data - A new scientific study using satellite technology provided clear evidence that California’s tough clean air programs are working to reduce emissions of fine particle pollution throughout the state. Scientists from Emory University, NASA’s Jet Propulsion Laboratory and the California Air Resources Board worked together to analyze satellite data to determine the 15-year trend of fine particle pollution. This type of pollution is also known as PM2.5, referring to particulate matter that is less than 2.5 microns in diameter, and or about 3/100ths the diameter of a human hair. PM2.5 is especially burdensome in California and accounts for the greatest percentage of health impacts attributable to air pollution. “This study provides new evidence that California’s clean air programs are delivering reductions in air pollution in heavily-trafficked urban areas and in far-flung rural locations, including disadvantaged communities where people are hardest hit by pollution,” CARB Research Director Bart Croes said.

This is the first study to evaluate long-term changes in major PM2.5 components using spatially comprehensive satellite data. The data were collected using a unique type on instrument—the Multi-angle Imaging Spectro Radiometer (MISR) - on NASA’s Terra satellite, which complements air quality data collected at existing air quality monitors on the ground. Most monitors do not track individual PM2.5 components, and monitors are mainly placed in urban areas where traffic is heaviest and more people live, not in rural areas. The satellite technology fills spatial and temporal gaps in air quality data. This study demonstrates the success of California’s air pollution control programs, regulations, enforcement efforts and clean-air plans in regions with the greatest air quality challenges: Southern California and the southern Central Valley.

Satellite data was able to identify locations that could be directly linked to programs that reduced measured pollutants. In the future, satellite remote sensing technology can be used to identify air pollution “hotspots” of major components of fine particle pollution, and help inform air quality management strategies and public health surveillance programs. Satellite data also can complement ground monitoring efforts to inform CARB’s Community Air Protection Program to identify environmental justice issues that can guide future control programs and mitigation strategies to improve air quality in California.

About PM2.5– Health-based standards are required in California and across the U.S. because particles smaller than 2.5 micrometers are able to penetrate deep into the lungs and can cause health problems.

Continued on page 3..
The City of Ojai held a Ribbon-Cutting ceremony on August 2, 2018 in downtown Libbey Park to display and describe the newly acquired equipment that will service the municipal park and landscape maintenance needs of the city.

The California Air Resources Board projects that by the early 2020s air pollution from gasoline-powered lawn and garden equipment will exceed the combined emissions from all passenger vehicles. While passenger vehicle emissions are expected to decline dramatically due to the introduction of much cleaner vehicles, manufacturers of small off-road engines have been slow to adopt similar pollution control technologies for gasoline-powered lawn and garden equipment. The path to cleaner air lies in a new generation of electric equipment including mowers, line trimmers, chain saws and blowers.

Coastal Cities: Concentrations of sulfates in coastal cities decreased significantly.

Transportation Corridors in Los Angeles: Concentrations of nitrates in Los Angeles decreased significantly.

Urban/Suburban Southern California: Concentrations of organic carbon (OC), elemental carbon (EC) decreased significantly.

July 31, 2018

- Approval of the re-appointment of Richard Nick and the appointment of Jay Berger to the Air Pollution Control District Advisory Committee.

- Approval of and authorization for the Air Pollution Control Officer (APCO) to execute a memorandum of agreement with the California Air Resources Board (CARB) to allow the District to implement and enforce CARB’s new regulation “Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities”. This Board action also allowed the District to accept grant funds from CARB to implement the regulation.

- Approval to identify the greater Oxnard/Port Hueneme area as the highest priority Ventura County community for inclusion in the first year of CARB’s AB 617 Community Air Protection Program and forward this recommendation to CARB.

- Public hearing regarding the adoption of a resolution to certify APCD’s nonattainment New Source Review (NSR) Compliance Demonstration for the 2008 federal ozone standard; and approval of, and authorization for the APCO to forward the signed resolution and the nonattainment NSR compliance demonstration to CARB for transmittal to the U.S. Environmental Protection Agency as a proposed revision to the California State Implementation Plan for ozone under the federal Clean Air Act.

- Approved an amendment to the APCD’s grant agreement with CARB, allowing APCD to receive a total of $151,657 in incentive funds under the Voluntary Nitrogen Oxides Remediation Measure.

The American Association of University Women (AAUW) has been empowering women since 1881 through education/training, funding, advocacy, and leadership. APCD’s Permit Processing Specialist II, Laura Kranzler was distinctly invited as a spokesperson for the 2018 Tech Trek Professional Women Night at UCSB where she engaged with middle school aged girls attending technology camp. “Through hands-on problem solving and encounters with women role models in science, technology, engineering, and math (STEM), AAUW Tech Trek helps girls see their futures while having non-stop fun.” - aauw.org

The teens attentively listened to Laura, who holds a mechanical engineering degree, as she described her present career, what steps she took in school to obtain her experience, to how to improve their resumes by pursuing on-line training or summer internships. Forthcoming were intrigued questions by the teens regarding details of her duties to her favorite college class.