

## China's polluted air may be affecting Fresno

By Mark Grossi



A layer of gray haze blankets the San Joaquin Valley as seen from about 1,500 feet above farmland near Huron on Tuesday, Jan. 22, 2013. Global pollution may increase smog in the central San Joaquin Valley, some air leaders say. TIM SHEEHAN/THE FRESNO BEE — Fresno Bee File Photo | [Buy Photo](#)

Last weekend, the most corrosive air of summer descended on northwest Fresno — the kind of lung-searing day that would crack the rubber band on your newspaper if you left it on the driveway.

The usual suspects in this kind of ozone siege are stifling heat, traffic and fires. It was a weekend, so commute pollution was not as bad. But Fresno was a stagnant 103 degrees, Sierra Nevada wildfires had burned for days and dirty air hung in the sweltering Valley.

As bad as that sounds, it may not be the whole story, local air leaders say. Global pollution may be helping to create those dirty-air days.

They say evidence points to plumes of pollution from China and eastern Asia, thousands of miles across the Pacific Ocean.

The San Joaquin Valley Air Pollution Control District has contributed about \$200,000 to help study it. The research is led by federal agencies, such as NOAA and NASA, as well as the University of California at Davis.

The research and the Valley were featured earlier this month in Science magazine, a leading outlet for the latest research and scientific news.

Among the bigger questions: How much ozone gets all the way across the ocean and down into the Valley?

Is it 1 or 2 parts per billion of ozone? Or is it something more significant, such as 10 or 20? The air district's estimate is a range from 4.5 to 22, but nobody knows for sure — yet.

"We're trying to quantify this source," said atmospheric researcher Ian Faloon of UC Davis. "There is pollution coming from beyond the U.S., and it is affecting the western edge of North America."

Sayed Sadredin, executive director of the Valley air district, said China and other countries could be adding just enough to nudge air quality up to and sometimes over federal standards.

It may have been a factor in the northwest Fresno problem last weekend when ozone peaked at 125 parts per billion, which is an exceedance of the federal one-hour standard, Sadredin said.

The issue may become important as the U.S. Environmental Protection Agency tightens the ozone standard in the next few years, Sadredin said. Global pollution may push other air basins over the more stringent ozone threshold in the future.

The Valley air district already has been forced to look at this big picture, Sadredin said. The air district last year used the latest research to argue for a waiver on a 2012 ozone exceedance.

If the exceedance were waived, the district would come into compliance with the one-hour ozone standard, an older and more lenient standard than the federal eight-hour standard.

At the same time, research on global pollution is not yet complete, scientists said, and no one is suggesting that the great majority of the Valley's pollution is not generated here.

### **Staying focused locally**

UC Berkeley professor Ronald C. Cohen, director of the Berkeley Atmospheric Science Center, believes the Valley district's use of the research distracts from its fight against major pollution sources, such as diesel engines.

He said global pollution research is important, but it shouldn't be used as a substitute for local action. He said prevention of asthma and other health problems connected to air quality should be the focus.

"I'm shocked at the way the air district has talked about this when most of the problem is happening in the Valley," he said.

Sadredin said he is not looking for a way around regulating home-grown pollution, nor does he want to roll back rules.

Rather, he wants the EPA to lift the federal requirement for the district to annually collect \$29 million in fees, mostly from Valley motorists. The fine was triggered when the Valley failed to achieve the federal one-hour ozone standard.

The money remains in the Valley and is used to help with air-friendly projects, such as replacing dirty diesel engines.

Sadredin added that the Valley has extensive pollution rules and local businesses have invested billions of dollars in new pollution-control technology.

"We're down to talking about regulating people's deodorant and hair spray, yet we're tolerating pollution coming from coal plants in Asia," he said.

EPA has made no official statement about the air district request for a waiver on the ozone violation. Federal officials said the agency is waiting to see if the Valley violates the one-hour ozone standard this year.

Even though northwest Fresno exceeded the standard last weekend, it is not considered a violation. Federal law allows three exceedances at any monitor over a three-year period, and the northwest monitor has only two in the last

three years.

If the Valley gets through October without a violation of the one-hour threshold, it would be in compliance with the one-hour standard. Which means EPA would not need to consider the China argument.

### **Chasing global sources**

At some point, though, as EPA tightens the ozone standard for the eight-hour federal threshold, the global pollution and every other source may become a big part of the discussion.

California Air Resources Board research has shown the Valley gets some pollution from the Bay Area. Fires in other parts of California also contribute ozone gases.

The Valley also gets ozone from the high-elevation ozone layer in the Earth's stratosphere as well as wildfires in Alaska or Russia, said researcher Faloona of UC Davis. It rides here on high-elevation winds moving from west to east.

To measure the pollution, scientists are sampling air at about 5,000 feet in elevation along a coastal ridge about 20 miles from Big Sur in Monterey County. Analysis has shown chemical remnants of coal combustion, which is widespread in China and eastern Asia.

"You can tease out the chemicals in parcels of air and determine where the air came from," Faloona said. "For instance, you can find mineral compounds in the dust that are linked to the Gobi Desert."

Faloona said he takes part in flights over the Valley to sample the air. The findings will help scientists understand how the pollutants are moving up and down vertically.

He said the global contribution would have gone unnoticed 30 years ago. Local air pollution was overwhelming. But with advances in clean fuel and engines as well as other technologies, California will need to identify every source.

"At what point do we say pollution is a global problem?" Faloona asked. "It's an important question."

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