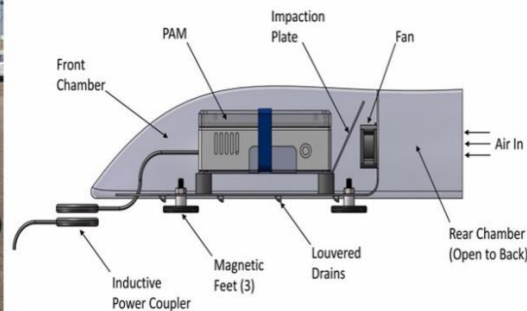


### *New Product Spotlight*

## **Road Trip! Air Quality Sensors Catch A Ride With 2B Tech's Car Topper**

2B Tech is developing a new enclosure, the Car Topper, for carrying air quality measurement packages aboard "vehicles of opportunity" such as rideshare cars (Uber, Lyft, taxis), delivery vehicles (UPS, FedEx, Amazon, USPS), and municipal buses and trams. By making air measurements frequently and in a much larger number of places, the idea can help researchers develop air quality "maps." The data will greatly expand current AQ information, which is mainly available through fixed-station measurements at a few locations and often is not near important sources of pollution.



The Car Topper is designed to carry 2B Tech's Personal Air Monitor (PAM), a sensor-based package for measuring CO, CO<sub>2</sub>, particulate matter, temperature, and relative humidity (watch for a 2B Tech video on this, coming soon!). When used in conjunction with drive-by calibrations at 2B Tech's instrument-based AQSsync package, also under development, the reliability of the sensor data is greatly enhanced.

Check out the video linked here to see the Car Topper in action during snowy weather, and visit our web page about this effort!

**[2B Tech's Instrument and Sensor Packages](#)**



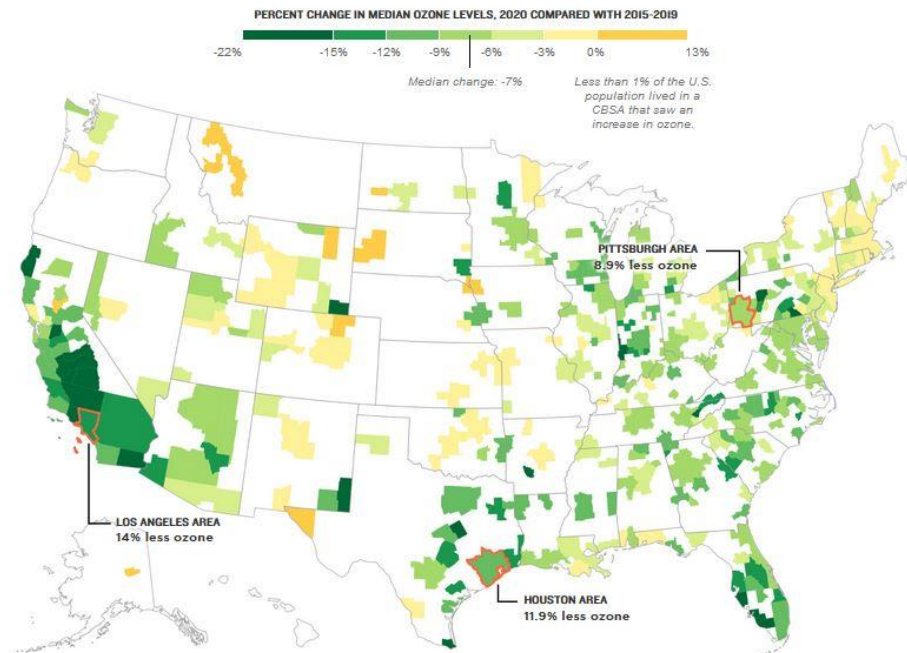
## Air Pollution News

### The Coronavirus "Air Quality Experiment"

#### Drop In Ozone Modest Despite Large Traffic Declines

For a period of time in early 2020, traffic from passenger cars took a nosedive because of school and workplace lockdowns around the world. The scenes of deserted freeways were downright eerie. Overall, about a 40% reduction of traffic occurred in the U.S. But during that time, the ozone component of air quality declined by less than half that amount.

[National Public Radio analyzed EPA data](#) from 900 monitoring stations across the U.S., comparing March-April ozone for 2020 to the previous five years of data for those months. In most of the places, ozone declined by 15% or less.



[Ozone increases and decreases across the U.S. during spring 2020. \[Figure Credit: National Public Radio\]](#)

This result may seem surprising, but the cars that sat idle during lockdowns are not the only consideration. Indeed, the result reveals the relative importance of other sources of the emissions that cause ozone pollution, which include not only passenger cars but also trucks, delivery vehicles, refinery operations, power plants, and others. Truck traffic was relatively unaffected during the lockdowns, for example, as the transport of goods continued to be necessary. From a policy perspective, the results of the inadvertent air quality/virus "experiment" show just how much improvement in ozone pollution can--and cannot--be expected in the future if commuter traffic is reduced or automobile tailpipe emissions regulations are strengthened.

Studies are showing that other components of air pollution, such as NOx and particulate matter, were reduced to a larger extent than ozone. To be sure, we could see the cleaner air with our own eyes (and instruments on land and in space). The wealth of data will no doubt yield many insights into the most important sources of air pollution, and help point the way to the most effective solutions.

[NPR Story: Ozone and Traffic during COVID-19 Lockdowns](#)

## Employee Spotlight

### Spotlight On... Everyone (!!!) At 2B Tech

#### Tibbetts Award Recognizes 2B Tech for Its SBIR Grant Successes

On 14 January 2021, the Small Business Administration [announced](#) that 2B Technologies is a winner of its Tibbetts Award. This national award recognizes small companies that are deemed to have been the most successful in developing and commercializing new, innovative technologies through the Small Business Innovation Research (SBIR) grant program. Roland Tibbetts was the founder of the SBIR program. 2B Tech and other winners are [profiled on the Tibbetts Awards website](#).

Since its founding in 1998, 2B Technologies has received \$6M in funding from eight Phase I and six Phase II SBIR grants awarded by the National Science Foundation, the Department of Energy, the National Institutes of Health, and the Centers for Disease Control and Prevention. This funding has enabled the successful development of miniaturized and innovative instruments including 2B Tech's Personal Ozone Monitor, the Personal Mercury Monitor, the Black Carbon Photometer, the Personal Air Monitor, and the AQTreks program. Two Phase II grants are now in progress.

Founded by Dr. John Birks and Dr. Mark Bollinger (the "2Bs"), 2B Technologies has invented, designed, manufactured, and marketed more than 20 major products for air pollution measurement. The company currently manufactures more than 1000 instruments per year and has sold over 8000 instruments worldwide for a total of \$40M since 2000. SBIR funding has been especially impactful in 2B Tech's efforts to develop instruments and programs for students and the general public (GO3 Treks and the current AQTreks program and Personal Air Monitor).

As noted by John in an announcement to 2B employees: "We did this as a team. It took all of us to develop the products, manufacture them, market and sell them. Together we have made a small difference in the world."

We are proud to join the Tibbetts Hall of Fame!

[2020 Tibbetts  
Awards: Company  
Profiles](#)

## The 2B Team



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## *Product Application*

### **2B Tech's Ozone Monitors: Ideal for Virus/Bacteria Sanitization** Measure Ozone During And After Ozone Fumigation

2B Tech's lineup of ozone monitors has options that are well suited for uses in sanitizing workplaces, hospitals, and other gathering spaces.

The wide measurement ranges of our ozone monitors are ideal for measuring not only the ppm levels of ozone used in fumigation, but also the ppb levels that confirm people can safely re-enter fumigated areas. We offer several configurations from stand-alone monitors containing pumps, to OEM and bare bones monitors that can be built into existing systems.

[Contact our sales staff](#) to discuss which of our ozone monitors would work best for your application.



"Bare Bones" Ozone Monitoring: The Model 108 Ozone Monitor is designed for integration into ozone delivery systems, such as automated equipment for ozone fumigation.

#### [Ozone Disinfection Applications](#)

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