

Public and Media Show High Interest in FRAPPE Campaign

By Ben Kaldunski
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Several ACAST members played integral roles in supporting a groundbreaking campaign aimed at improving scientific understanding of the factors that affect air quality in Colorado's Front Range region.

The Front Range Air Pollution and Photochemistry Experiment (FRAPPÉ) launched on July 16th and concluded on August 18th. The campaign was led by Gabriele Pfister, an ACAST investigator and National Center for Atmospheric Research (NCAR) scientist, and her colleague Frank Flocke, who coordinated ground-based measurements with aircraft sampling and satellite observations. These three air quality measurement techniques are expected to produce a vivid picture of the complex factors that contribute to air quality problems in the Front Range.

"Our goal is to produce an accurate and detailed view of all the diverse sources of ozone pollution along the Front Range," Pfister said. "We want to fingerprint where the pollution comes from and analyze what happens when it mixes in the atmosphere."

Pfister said early results of the far-reaching campaign found ozone and ozone precursors at higher elevations in the Rocky Mountains, which are typically associated with very clean air. The pollutants were pushed into the mountains from lower elevations by wind and rising air masses that were heated at lower elevations.

Flocke said that some of the observed ozone levels in the mountains were similar to or greater than levels at lower elevations. Measurements taken by aircraft detected ozone and precursors at 16,500 feet, more than 2,000 feet above the highest peak in Rocky Mountain National Park.

The unprecedented FRAPPÉ campaign garnered consistent coverage in local and national media for several months. *The Daily Camera*, a Boulder-based newspaper, first reported on FRAPPÉ in May. Local Colorado news outlets including the *Coloradoan* and *Foundriest* both published stories on FRAPPÉ and *The Denver Post* published a story on August 16th highlighting some early results. *Lab Manager Magazine* also profiled the project with a feature published on August 19th.

Public interest grew as residents curiously gazed at the FRAPPÉ aircraft flying low across the Front Range region. NCAR held an open house at the Research and Aviation Facility in Broomfield, Colorado, on August 2nd where hundreds of visitors participated in guided tours of the aircraft used in the month-long study. Video news coverage of the aircraft tours was provided by Denver's local CBS affiliate ([here](#)), and NBC affiliate ([here](#)).

Selected Media Coverage

- Read *The Daily Camera* piece "Boulder Researchers Leading Landmark Front Range Air Quality Study," [here](#) (May 25, 2014)
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- Read the *Coloradoan* story "NASA Air Quality Flights Turn Heads Over Fort Collins," [here](#) (July 23, 2140)
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- Read *Foundriest's* story "FRAPPE Air Quality Study Investigates Front Range's Effect on Denver-area Ozone," [here](#) (August 4, 2014)
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- Read The Denver Post's story "Researchers Take Flight to Measure Air Quality Around Colorado," [here](#) (August 16, 2014)
- Read the Lab Manager feature "Scientists Launch Far-Ranging Campaign to Detail Front Range Air Pollution," [here](#) (August 19, 2014)
- Read The Daily Camera story "Ozone in Colorado Mountains Surprises Researchers," [here](#) (August 28, 2014)
- Read The Coloradoan story "Study: Ozone Levels at Lowest in Three Years," [here](#) (September 17, 2014)
- Global Aviation Resource has a collection of photos taken of the aircraft used in the FRAPPE campaign that can be viewed [here](#).

Dr. Gabriele Pfister is a scientist in the Atmospheric Chemistry Division at the National Center for Atmospheric Research and an ACAST investigator. ACAST is a NASA-funded team of air quality experts that strives to use advanced air quality science to develop new tools for air quality managers. Learn more about ACAST at this [website](#) and Pfister's research interests [here](#). You can read more about the FRAPPE campaign from its official blog [here](#) and see a full list of FRAPPE media coverage [here](#).

Sources and media coverage

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Hundreds of visitors were able to tour the NSF and NASA aircraft involved in this summer's FRAPPE campaign on August 2nd at the Rocky Mountain Metropolitan Airport in Broomfield, Colorado (Image courtesy of the National Center for Atmospheric Research).