Tower hosts NOAA project

By Lee Hermiston
Iowa City Press-Citizen

A local television tower soon will be transmitting more than just TV signals.

Starting this week, the KWKB-TV tower four miles north of West Branch will be used to gather carbon dioxide and carbon monoxide measurements in the air and relay that information to researchers at the University of Iowa and the National Oceanic and Atmospheric Administration.

NOAA crews last week fitted the 1,200-foot tower with equipment to measure the gases in the air. The tower, chosen as part of a complex network of towers strategically placed throughout the country, is only the fifth of its kind in the United States. The other towers are in Wisconsin, Texas, Maine and Colorado.

"We'll measure the air here, and this same air that comes through here will come through our tower in Wisconsin."

Jon Kofler
NOAA project leader

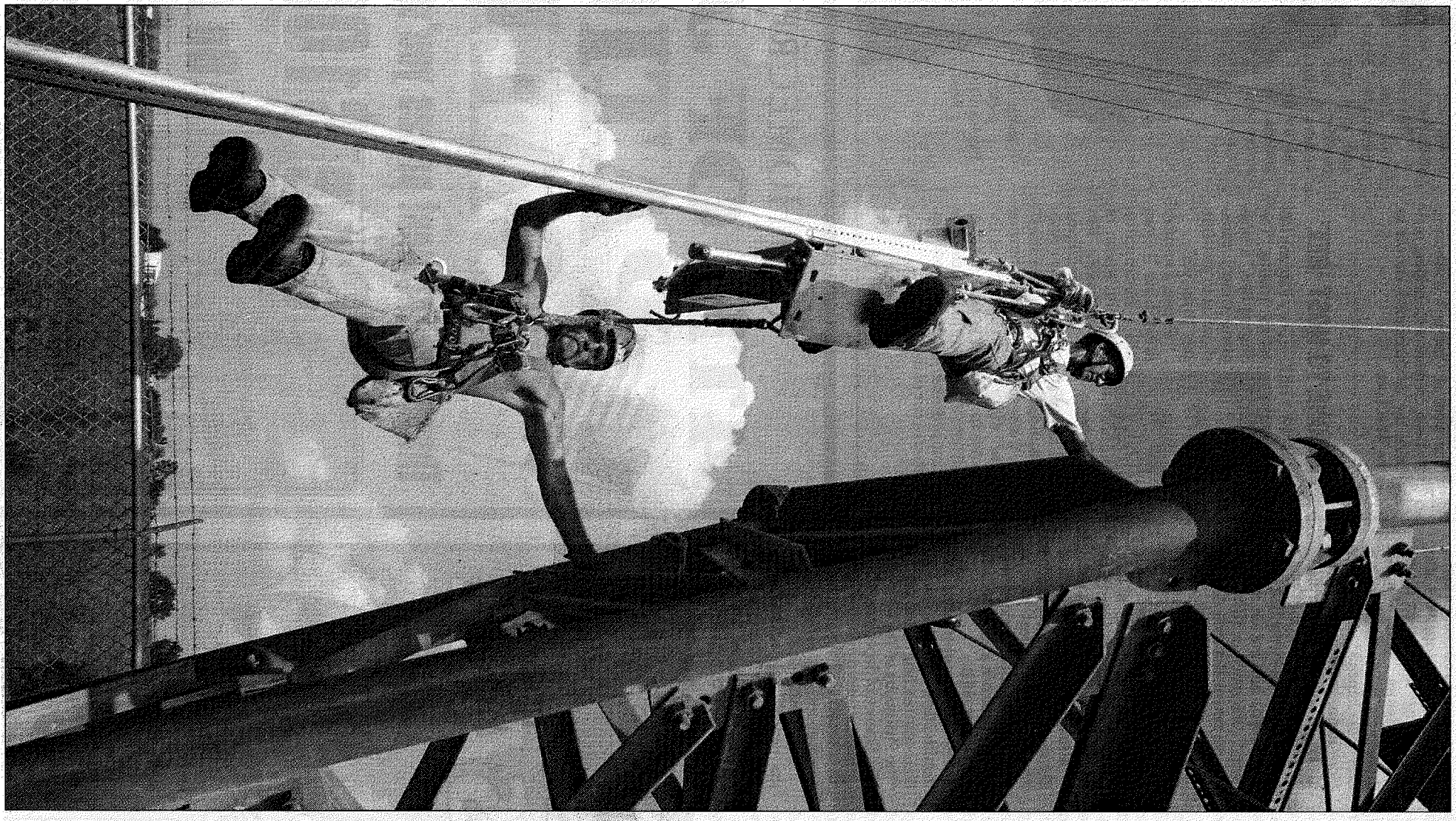
All of the towers are placed so that NOAA researchers can track carbon dioxide and carbon monoxide levels as the same air currents move across the United States.

"We'll measure the air here, and this same air that comes through here will come through our tower in Wisconsin," NOAA project leader Jon Kofler said.

Charles Stanier, an assistant professor in chemical and biochemical engineering at UI, is assisting NOAA in the project and periodically will check on the performance of the equipment.

See NOAA, 5A

Measuring nation's air quality here in the heartland



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Technicians John Wehe, top, and Mike Sova hang from a steel cable as they are pulled by a winch up the side of the KWKB-TV transmitter tower in West Branch on Tuesday. The men, who work for Medford, Wis.-based OK Tower Service, were installing equipment that will monitor carbon dioxide and carbon monoxide levels for the National Oceanic and Atmospheric Administration.

NOAA

From 1A

Stanier said carbon dioxide and carbon monoxide will be monitored at the top, middle and bottom of the tower every 10 minutes.

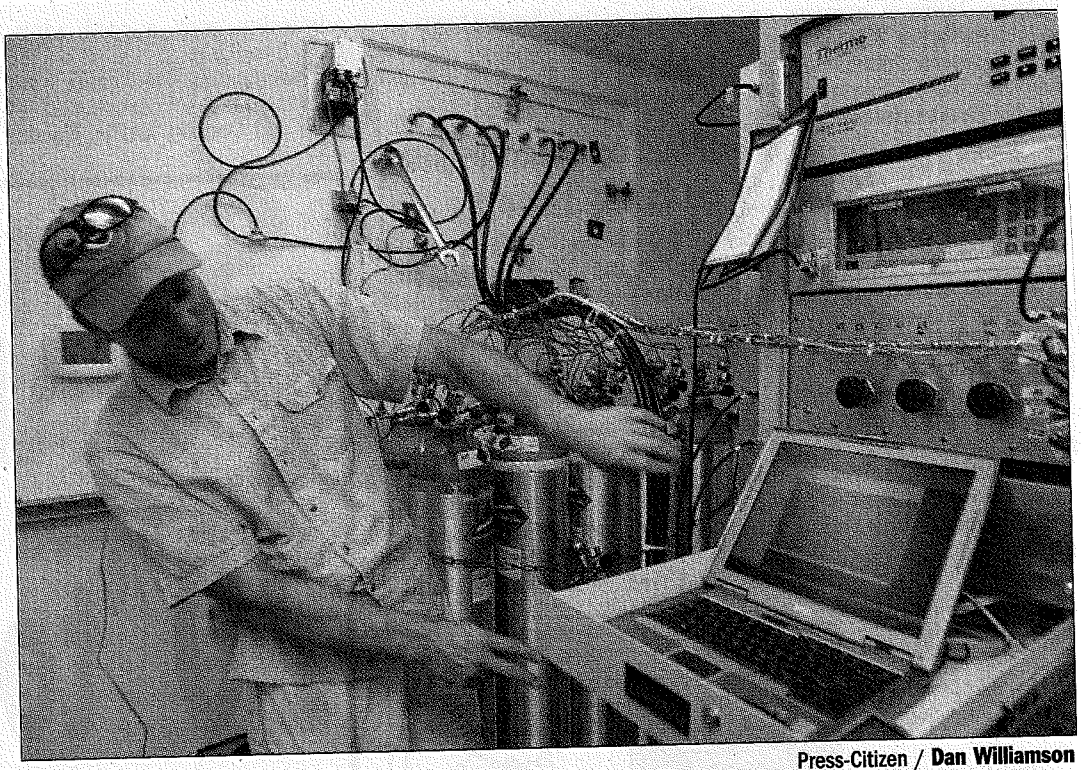
As a network, the series of towers will enable NOAA to take more consistent, continuous and accurate readings throughout the country, he said.

"So what's done with the measurements is they're used to produce a budget of carbon dioxide," Stanier said. The carbon dioxide budget is the combination of the levels of carbon dioxide emissions and the amount of gas taken up by growing plant life.

This transmission of carbon dioxide is known as the carbon cycle. However, readings taken of this process historically have not been very accurate, he said.

The series of towers will enable researchers to have more concise readings, Stanier said.

By better understanding the carbon budget, Stanier said agencies such as the NOAA will be able to better predict the levels of carbon dioxide and carbon monoxide in the future. That will allow agencies to prepare for potential climate changes related to increased levels of the gases, he said.



Press-Citizen / **Dan Williamson**

University of Colorado research associate Jon Kofler describes some of the equipment that will be used to analyze data collected by carbon dioxide sensors mounted on a transmitter tower in West Branch.

That information could allow lawmakers to determine if action needs to be taken in limiting carbon emissions, Stanier said.

"Currently there are no laws or regulations that limit carbon emissions," he said. "We just want to understand this system in preparation for taking action. We want to be informed when we take those actions."

Stanier noted, however, that the NOAA and the West Branch tower are just one piece of the puzzle.

"It's a very large effort," he said. "We're just a tiny piece in this big picture."