



By Nancy L. Ford, Observer-Dispatch

John Dove, left, president of Dove Electronics, and Andrew Morcroft, project engineer, stand with their new product, a HOLODAR, which measures wind turbulence and velocity.

Rome inventor tracks the wind

By **BILL FARRELL**
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ROME — With airline passenger safety a major concern these days, John Dove believes a product that his electronics firm has developed to track air turbulence is ready to take off.

Known as HOLODAR — short for holographic radar — the optical sensor system measures atmospheric conditions like wind speed, direction and turbulence.

Dove, owner of Dove Electronics, figures the system's commercial applications could include uses by airports and airlines to check wind speeds and pockets, and advise planes of conditions before takeoff. If the idea sells, it could improve air travel safety and speed up departures, Dove said.

He says the HOLODAR unit provides greater accuracy, resolution and range over existing units at competitive prices.

"If it does what he says it

does, there are some people here who would listen," said Jeff Thal, a spokesman for the FAA in Washington, D.C. But Thal added that such a unit would have to be certified by his agency. "It would have to be tested and evaluated for reliability and availability.



The 71-year-old Dove is no newcomer to the electronics field. In the 1960s, he invented the technology that led to the compact disc.

His company, incorporated in 1982, has designed high-speed computer network equipment, high-speed communications equipment and fiber optic sensors for the Department of Energy.

The company developed its first experimental HOLODAR

model in 1990 and its first operational prototype three years later.

These original units are currently in use in Boulder, Colo., at the National Oceanic and Atmospheric Agency, and at Fort Belvoir Army Base in Virginia.

"It's being used at the fort to measure wind speed, direction and turbulence during tests of various weapons systems," Dove said.

The original model is 3 feet long by 1½ feet in diameter and costs \$50,000. But now Dove Electronics is ready to launch a smaller version at a lower cost (\$5,000).

The unit has undergone changes to make it more efficient, more flexible and with a greater range, Dove said.

He envisions it one day being used by sport teams whose outcomes are substantially impacted by the motion of air.

"What we're looking for now is investors. We need about

\$100,000 for working capital until the product becomes profitable," he said.

Dove said his firm currently has the capacity to make up to five of the smaller units a day, but that could be increased to up to 10 a day.

He figures the potential for his system is great, given that there are some 10,000 airports in the United States alone.

"The airline industry loses hundreds of millions a year because the FAA and airlines don't have very accurate turbulence and wind parameter measuring devices to permit them to have planes take off more frequently," he said.

Airports use balloons, wind socks, and, in larger airports, sophisticated radar to measure turbulence.

The radar can't be used at every airport because it's expensive, while balloons and wind socks have accuracy problems and can freeze in cold weather, Dove said.