

## **Our view: FAA Tech Center work pays off for aviation, region and beyond**

The Federal Aviation Administration's William J. Hughes Tech Center is an economic engine for South Jersey that handles a lot of cool projects.

Few probably are as cool as one of its latest — determining how to safely fly quantities of dry ice, at least minus 109 degrees Fahrenheit, to transport COVID-19 vaccines.

One of the first vaccines produced under the federal Operation Warp Speed needed to be kept ultra-cold in transit. Using dry ice, the solid form of carbon dioxide gas, made sense because it's widely used to ship food, is readily and inexpensively available, and leaves no residue as it returns to its gaseous state (skipping a liquid state altogether, which is also cool).

But dry ice can pose risks in aircraft, including the release of carbon dioxide in a closed space. Although people exhale carbon dioxide with each breath, too much produces toxic levels in the body that can cause drowsiness, impair senses and lead to unconsciousness.

The FAA Tech Center determined the amount of dry ice that could safely be used to transport COVID vaccine in an aircraft — and in record time.

The center addressed a more widespread concern at the other end of the temperature gauge, researching how to safely fly lithium batteries that have been known to start fires on planes. That helped determine what makes such a battery go into "thermal runaway" and how to prevent it. Research is ongoing on fire suppressant gases for use in cargo holds.

The grandest project for the center is its lead role in developing the Next Generation Air Transportation System, the biggest technology upgrade ever for the nation's air traffic control system. New aircraft location and flight path technologies will increase system capacity, reduce fuel consumption and improve safety. One part of the Tech Center's work enabled aircraft and controllers to communicate via reliable texts and not just by voice.

The Tech Center in Egg Harbor Township and its tenants (including Atlantic City International Airport and the National Aviation Research and Technology Park) contribute \$900 million a year in economic activity to the seven counties in South Jersey, double the amount of just five years ago. They also are responsible for 5,240 jobs, according to an economic impact analysis released in October.

No wonder that when local government officials and development experts focus on diversifying the region's dominant tourism economy, their first impulse is to look at the FAA Hughes Tech Center and wish they had more work like that.