

A drone flown by Choctaw Nation Video Production Audio Visual Technician Joseph Jefferson flies over Tvshka Homma during the Trail of Tears on Saturday, May 19. The Video Production Department frequently uses footage gathered by a drone to help tell the stories of the Choctaw Nation. Still shots taken from drone video footage have been used in the "Biskinik" to get unique views of locations and events.

by Kristina Humenesky

Choctaw Nation Selected to Participate in FAA Drone Proaram Known as UASIPP

by STACY HUTTO

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The Choctaw Nation made history on Wednesday, May 9.

U.S. Transportation Secretary Elaine L. Chao announced Choctaw Nation was one of 10 selectees to participate in the initial Unmanned Aircraft Systems, or drone, Integration Pilot Program, also known as UASIPP.

The participants came from a pool of over 200 tribal, state and city governments.

'We are looking forward to helping today's winners unlock the enormous potential of drone operations, which will create new services and jobs in their local communities," said Secretary Chao.

The Choctaw Nation's proposal focused on agriculture, public safety and infrastructure inspections, as well as planned Extended Visual Line of Sight, or EV-LOS, operations over people and nighttime operations.

The day the awardees were announced Choctaw Nation of Oklahoma Chief Gary Batton said, "The Choctaw Nation is very happy about today's announcement, and we believe this reflects very well on our continued work and efforts to identify and grow economic opportunities for our region.

We realize that this technology has the potential to change our daily lives in many positive ways."

He also stated, "This program will enable and foster technology and creativity in a safe environment."

Currently operators of drones must fly within visual line-of-sight, never fly near emergency response efforts, do not fly near other aircraft or people unless granted a waiver and fly only during daylight, or civil twilight, at or below 400 feet, among other regulations.

The program will help the U.S. Department of Transportation and FAA develop a regulatory framework that will allow more complex low-altitude operations; identify ways to balance local and national interests; improve communications with tribal, state, and local jurisdictions; address security and privacy risks; and accelerate the approval of operations that currently require special authorizations.

According to the Federal Aviation Administration website, the partners have an aggressive 90 day schedule for high profile EVLOS and night operations.

Also being tested is advanced weather

infrastructure.

The data gathered from the testing could extend to a wide range of operations and be used in many different geographical locations.

"The Choctaw Nation has always supported technology innovations," said Chief Batton.

"We look forward to participating in this important UAS initiative and helping the U.S. remain globally competitive in emerging aviation technology fields. We are excited to promote job growth, economic development, and important educational opportunities for our citizens and our neighbors in southeastern Oklahoma," Batton said.

Choctaw Nation will be working with CNN and Green Valley Farms Living Laboratory in Cleveland County in breaking regulations regarding drones, with permission of course.

Other Choctaw Nation partners include Flirtey, AiRXOS, a GE venture, uAvionix, AirMap, TDRS, LLC; DII, LLC; Oklahoma State University Unmanned Systems Research Institute and the University of Oklahoma.

Green Valley Farms Living Laboratory is located between Lexington and Purcell and sits on 3,500 acres.

It is located about 15 minutes south of the University of Oklahoma's Norman campus.

This is convenient due to the University of Oklahoma being one of the partners working with the Choctaw Nation.

Due to the range of features on the land Green Valley Farms Living Laboratory can be used for a variety of research.

According to their website, testing and research can be some for unmanned and autonomous systems, precision agriculture, weather science and atmospheres, emergency response and disaster recovery, utilities' maintenance, safety and surveillance and energy/pipeline safety and surveillance.

The terrain at Green Valley Farms will be beneficial in testing EVLOS and the site offers an open space setting with access to FFA Class G/E airspace, depending on elevation.

Warren Thomas, the Managing General Partner of Tinker Business & Industrial Park, of which Green Valley Farms Living Laboratory is an extension of, said they want to bring the same approach they use to the Choctaw Nation.

Thomas stated they bring together

public, private and educational entities to make innovative advances.

Choctaw Nation's Choctaw Hunting Lodge is unique in research capabilities.

Thomas said some of the features that make the Choctaw Hunting Lodge unique is the physical size, the biodiversity and that it contains over 25 miles of unrestricted air space.

Many international companies that call Tinker Business & Industrial Park home are in the forefront of drone research. Choctaw Nation will give them the opportunities to test close to home.

Thomas said the partnership between TBIP and Choctaw Nation has the potential to foster globally significant, high paying careers.

Flirtey, another Choctaw Nation partner, is an independent drone delivery service.

The company has worked with NASA, John Hopkins University of Medicine, Remote Area

Medical New Zealand Land Search & Rescue, Domino's and 7-Eleven to make medical deliveries to rural healthcare clinics, ship-to-shore deliveries of medical samples and deliveries to people's homes.

On March 25, 2016, Flirtey completed the first fully autonomous, FFA approved urban drone delivery in the United States.

The first autonomous delivery by drone was made to an uninhabited residential setting in Hawthorne, Nevada.

In keeping with Flirtey's vision to reinvent the delivery process for humanitarian efforts, the delivery consisted of food, water and a first aid kit.

This was another first for Flirtey. Months before the autonomous delivery Flirtey conducted the first FFA approved drone delivery of a series of urgent medical deliveries to a rural healthcare clinic.



Graphic from www.gvflivinglaboratory.com

Green Valley Farms Living Laboratory is 3,500 acres between Purcell and Lexington. It is also 15 minutes south of the University of Oklahoma's Norman campus making it an ideal location for testing and gathering data for the UASIPP.

> Another partner, AirMap, is a startup company specializing in building software and systems to help drone operators fly only where it is safe and legal to do so.

Eventually AirMap wants to be able to give drone operators information on the safest route to fly.

To determine the safest route, AirMap would take into consideration more than just static rules, terrain and obstacles.

Shifting traffic conditions, weather, temporary flight restrictions and more would also be taken into consideration.

Considering there are over 400,000 registrants in the Unmanned Aircraft System, or UAS, registration system, with more people registering every day, the data AirMap gathers while partnering with Choctaw Nation will go a long way towards avoiding traffic jams in the sky and helping drones stay in their legal airspace.