



CHOCTAW NATION OF OKLAHOMA



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ADVANCED TECHNOLOGY INITIATIVES

Strategic Development
Advanced Technology Initiatives



NATIONAL EMERGING AVIATION TESTBED

- The Choctaw Nation is developing a one-of-a-kind test facility for emerging aviation - Urban Air Mobility



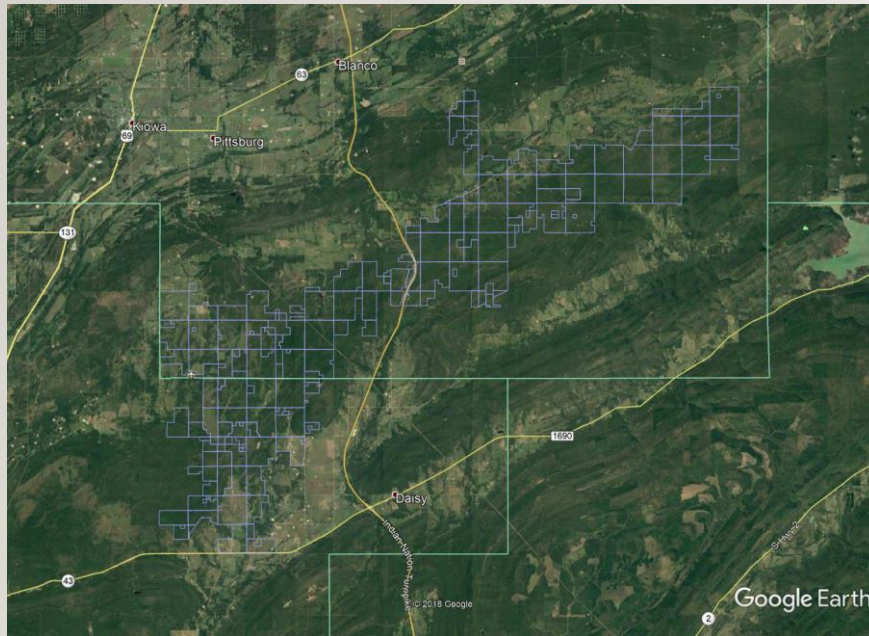
FAA UNMANNED AIRCRAFT SYSTEMS INTEGRATION PILOT PROGRAM (UAS IPP)

- The Choctaw Nation is one of nine (9) sites selected by the U.S. Department of Transportation for an important national drone integration pilot program
- The Choctaw Nation UAS IPP team includes CNN, GE/AirXOS, Intel Corporation, Noble Research Institute (NRI), University of Oklahoma (OU), and Oklahoma State University (OSU)



NATIONAL EMERGING AVIATION TESTBED

44,000 ACRES
PRIVATE LAND





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CHOCTAW NATION ADVANCED AVIONICS TEST BED





CHOCTAW NATION SURVEILLANCE RADAR



Choctaw Nation of Oklahoma

Unmanned Aerial Systems Integration Pilot Program





WHAT ARE IPP PROGRAM GOALS

Safety

- Safety is the FAA's first priority, but safety should also be everyone's responsibility.

Innovation/Adaptability

- The FAA expects the Integration Pilot Program to pave the way for new and expanded commercial UAS operations, as the FAA incorporates lessons learned from the Integration Pilot Program's operations into the regulatory framework.

Collaboration

- The FAA's policies and overall regulation of small unmanned aircraft will be more successful if they involve a strong and diverse coalition.

Global Leadership

- Bringing the best, creative thinking of the public and private sector together ensures that our nation retains its place as an aviation pioneer and technology leader.



CNO IPP PROGRAM GOALS

Demonstrate Technology, Provide Data,
Facilitate Rule Making

Further the Choctaw Nation's Impact in the
Area through Economic Development

Areas of Study

- Agricultural Delivery / Application
- Inspection / Observation
- Data Collection
- Operations over People for Public Safety
- Others



10 POUNDS OF CORN FOR FERAL HOG TRAP



Gryphon 1400mm GD-40X



PECAN CROP SURVEY





INFRASTRUCTURE INSPECTION

- 7,000 foot fence line for testing
- Laser straight





INFRASTRUCTURE INSPECTION

- 17 miles of 345kV
Transmission Line

Vegetation

Encroachment

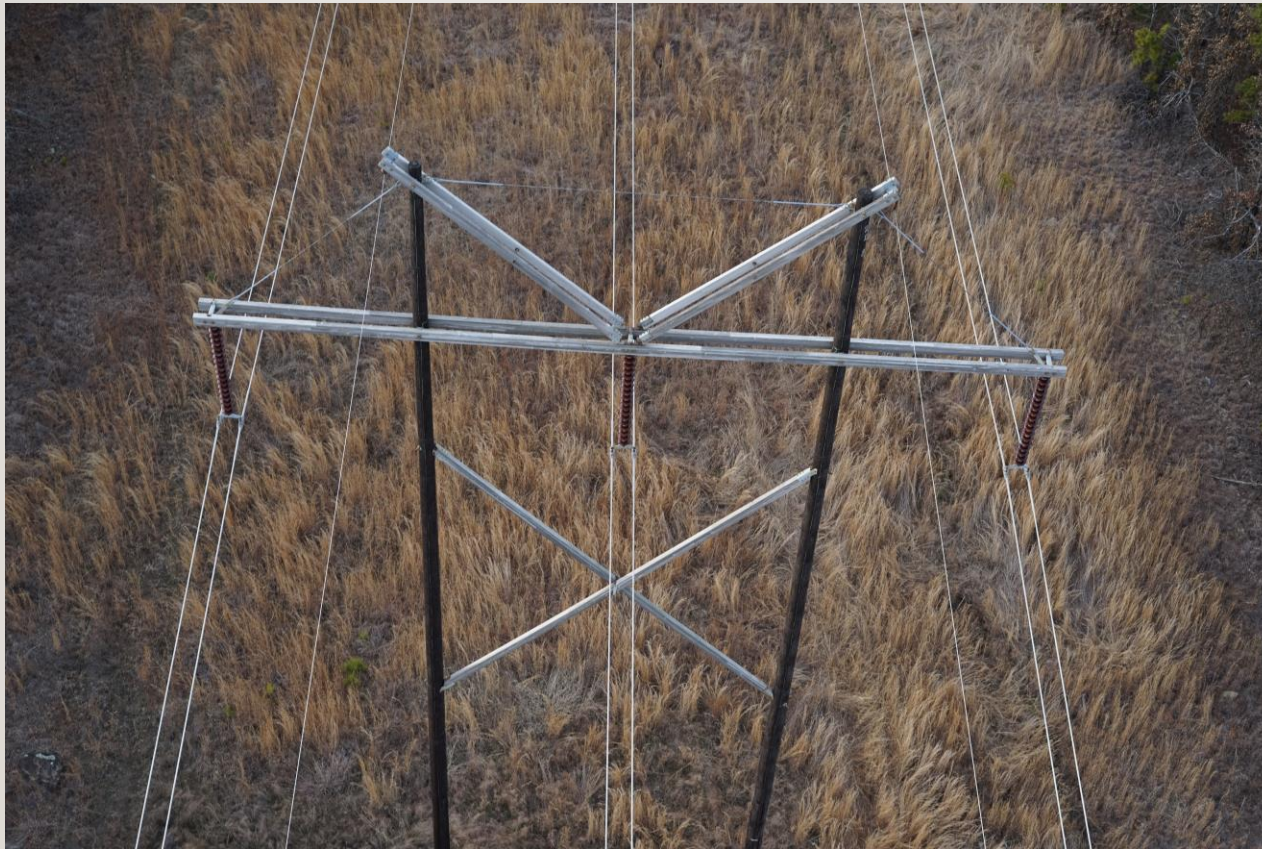
Infrastructure

Inspection



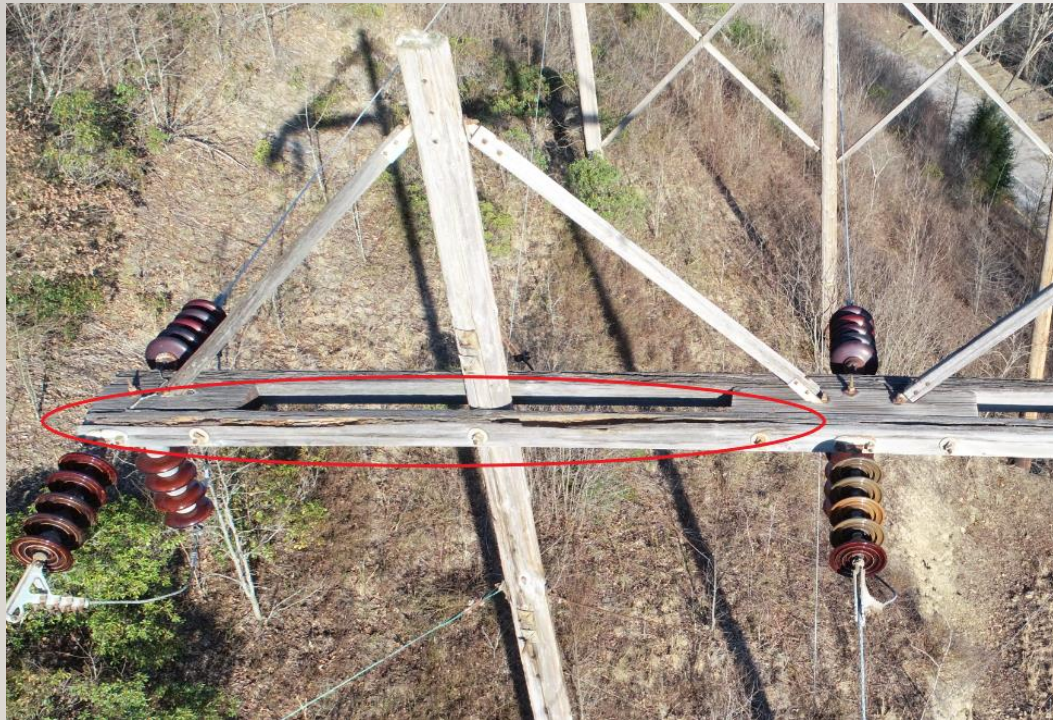


INFRASTRUCTURE INSPECTION

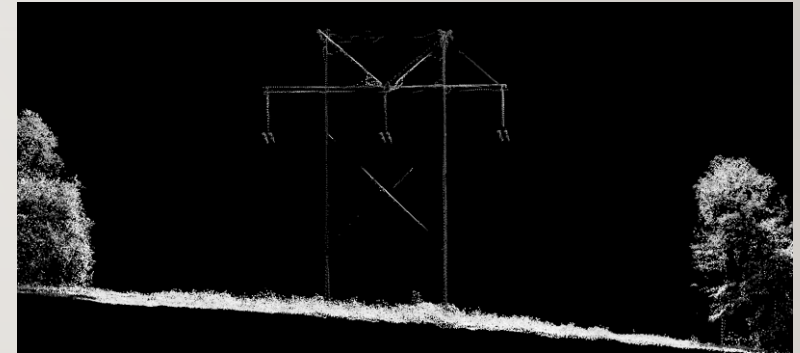




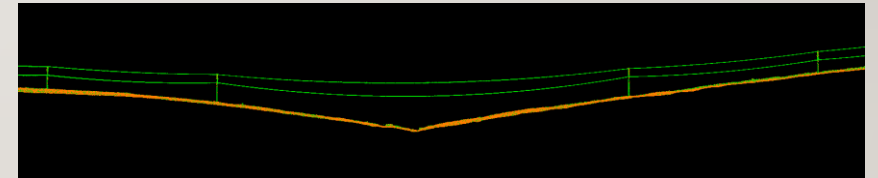
INFRASTRUCTURE INSPECTION



Wood Rot as seen from sUAS



LIDAR - Vegetation Encroachment



LIDAR – Infrastructure Mapping



INFRASTRUCTURE INSPECTION



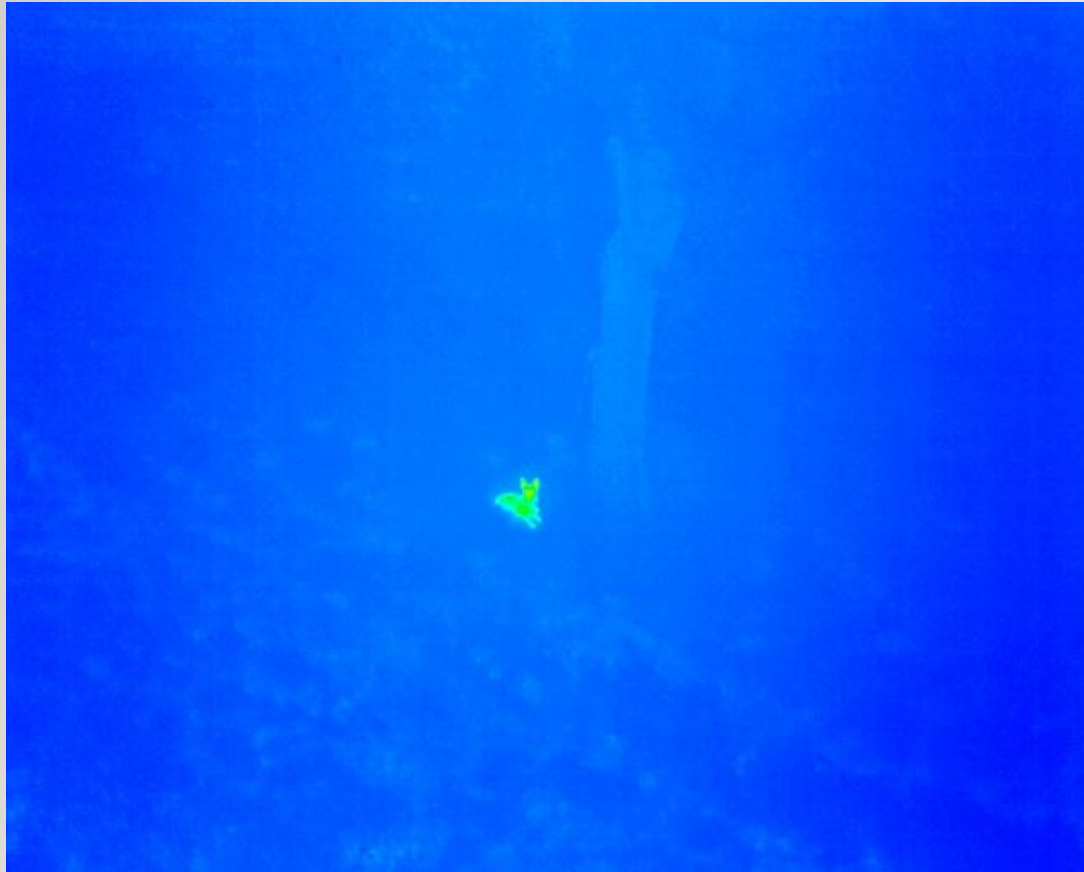


TORNADO DAMAGE ASSESSMENT





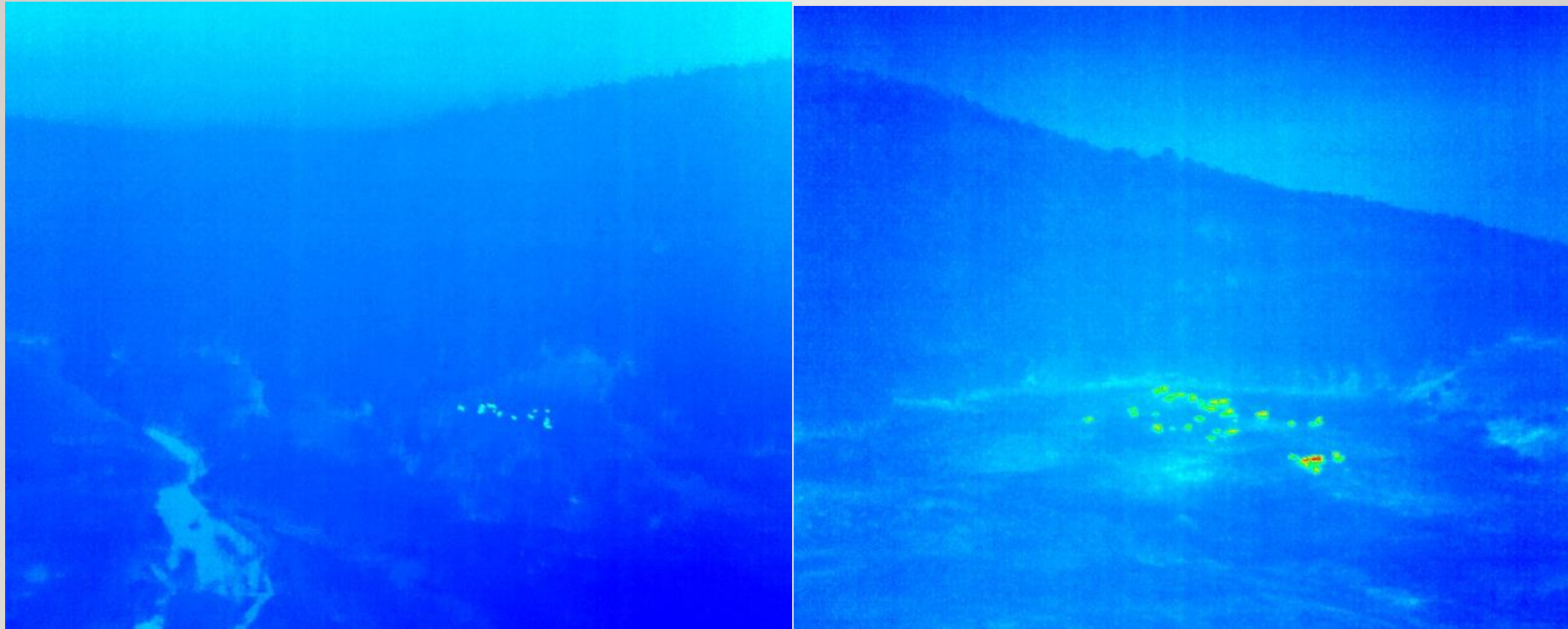
WILDLIFE OBSERVATION



Intel Falcon 8 + with FLIR Camera



WILDLIFE OBSERVATION – HEAT SIGNATURE





CATTLE DRIVE – COUNTING COWS





VOLPE, THE NATIONAL TRANSPORTATION SYSTEMS CENTER - NOISE MEASUREMENT TESTING





VOLPE SETUP





OVERHEAD OF VOLPE TEST AREA





CHOCTAW NATION DRONE CAMP





CHOCTAW NATION DRONE CAMP





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