

Benefits:

Once the UAVs complete their missions, Ozarks Electric's field technicians can view and annotate the imagery on a customized Web portal, email it to a predetermined list of recipients, and export it as a .zip file to review or distribute later. All problems identified by the UAV inspection can be categorized, prioritized, and monitored using the online interface.

"Working with Honeywell makes our job a whole lot easier and safer," says Cody Slaughter, First Class Lineman at Ozarks Electric. "We don't have to put guys up in a helicopter flying rough terrain and we can collect a lot more data using the drone."

Holloway says that people throughout the power company are "starting to understand that the drone is a valuable tool to make us more efficient and agile, through the application of RF frequency inspections, thermal-imaging inspections, LIDAR, and other technologies."

The inspection service has already helped Ozarks Electric refine its job planning and parts ordering processes. And, by repeating the same inspections two or three times a year, the power company will be able to better identify long-term maintenance issues, improve product quality, and get closer to completely uninterrupted service.

Once the inspection data is in the secure Web portal, authorized users can go back to the same issues month after month, year after year, to double check their status and see if anything needs attention.



Holloway goes on to say that the inspection service can be especially helpful in emergency situations. When it comes to finding the fault on a particular line section that's been knocked out, he says that "the drones essentially allow us to restore power in a much quicker manner, therefore getting the membership's lights back on so that the interruption doesn't affect their life anymore than it has to."

The analytics capabilities and customizable online interface bring the Honeywell UAV Inspection Service to the next level for utility companies like Ozarks Electric and other industrial customers that require routine and crisis-response structure inspections. Behind the scenes, Honeywell's global team of analytics experts works around the clock to continuously refine algorithms and support the UAVs in the field.

For officials at Ozarks Electric, the hardware, software, and expertise provided by Honeywell Aerospace have passed the test for greater efficiency at reduced expense. "I didn't even know what a drone was when I started here," muses Slaughter. "The information they're gathering is incredible, and it's a great feeling to be on the front end of this technology."

Honeywell
THE POWER OF **CONNECTED**

HONEYWELL UAV TEAM INSPECTS 150 MILES OF POWER LINES FOR OZARKS ELECTRIC COOPERATIVE IN JUST DAYS

Unmanned Aerial Vehicle (UAV) Inspection Service drives efficiencies and improves safety.

"We're learning what drones can do every day. The Honeywell people are really smart, and it's fun to challenge them with new ideas and have them come back to us and say they can do it. We look forward to a long future with the Honeywell UAV program."

—Clinton Foster, Right-of-Way Coordinator, Ozarks Electric Cooperative



Honeywell Aerospace
1944 E. Sky Harbor Circle
Phoenix, AZ 85034
aerospace.honeywell.com

A60-1643-000-000
© 2018 Honeywell International Inc.

Honeywell



Overview

Providing power to more than 76,000 customers in Northwest Arkansas and Northeast Oklahoma, Ozarks Electric Cooperative understands the need for consistent, reliable service. To improve the efficiency and safety of its power line inspections, the power company chose the Honeywell UAV Inspection Service. Commercial-grade unmanned aerial vehicles (UAVs) enable Ozarks Electric to inspect 150 miles of power lines and 2,000+ transmission poles—which can take up to two weeks using traditional methods—in less than a week.

Quick Facts

Honeywell UAV Solution

- Commercial-grade UAV system
- Certified pilots and mobile pilot app
- Customizable web portal
- Advanced data storage and analytics

Customer Results

- Speed and efficiency: 150 miles covered in just a few days instead of two weeks
- Improved safety: No need for inspectors on foot or in helicopters
- Greater accuracy: Latest mapping technology pinpoints exact locations of problem areas
- Greater consistency: Future inspections can precisely replicate previous ones for exact comparison

Why Honeywell UAV Inspection Service

- Mission planning, data tagging, photo classification, and annotating
- Enhanced data visualization, analytics, and reporting
- Searchable and standardized data from every inspection at your fingertips
- AI/machine learning approach for predictive maintenance capabilities
- Full compliance with FAA rules and regulations for drone flights

Customer

- Name: Ozarks Electric Cooperative
- Location: Fayetteville, Arkansas
- Industry: Public Utility
- Website: ozarksecc.com

Background:

Ozarks Electric Cooperative is a nonprofit electric utility cooperative based in Fayetteville, Arkansas, serving more than 76,000 homes, farms, businesses, and industries throughout Northwest Arkansas and Northeast Oklahoma. The company manages nearly 7,000 miles of power lines, which need to be maintained on a regular basis and repaired quickly in emergency situations.

In order to provide consistent, world-class service, officials at Ozarks Electric are always looking for ways to be “proactive, rather than reactive” when it comes to reliability, according to Chris Holloway, Quality, Reliability and Processes Supervisor.

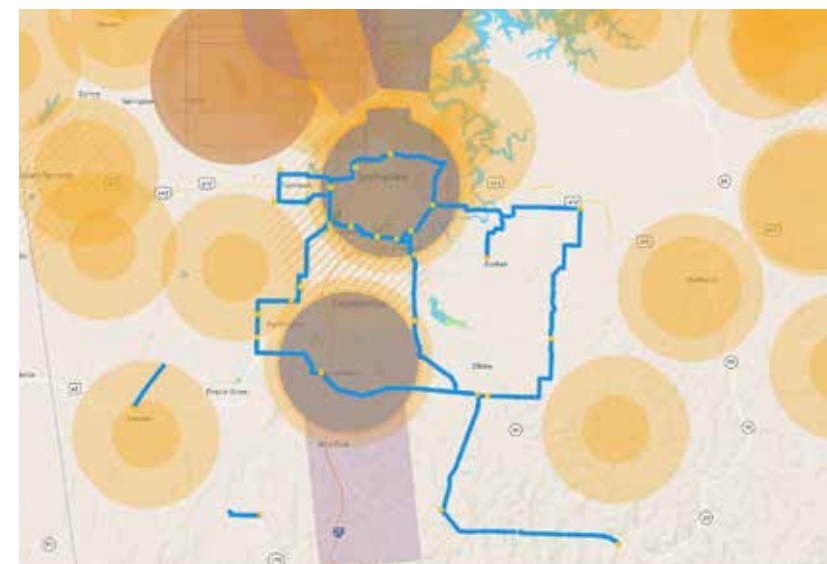
“One thing that continues to drive us every day is how can we operate most efficiently to save our membership the most amount of money,” he says. “Everything we do to improve the overall member experience should be accomplished at no additional expense.”

Solution:

In the spring of 2018, Ozarks Electric chose to try out Honeywell’s UAV Inspection Service on 150 miles of transmission lines and more than 2,000 distribution poles. The goal of the program was to see if using drones was more efficient and less expensive than traditional inspection methods, such as manually walking the lines or flying camera-carrying inspectors in helicopters.

During the first inspection with Honeywell, two certified drone pilots from Honeywell Aerospace covered as much ground in about four days that would have taken traditional walking crews two weeks.

“The drones allow us to go to very remote, rural areas that could take hours for someone in a utility task vehicle (UTV) or on foot,” Holloway



says. “Now we can cover difficult sections of line in just 15 minutes.”

The commercial-grade drones, which can be programmed to fly autonomously across all kinds of terrain, record 42 MP-resolution or infrared images along pre-determined flight paths.

The imagery collected by the drones can identify cracks, chips, rot, and other problems affecting transmission line hardware, utility poles, glass bell suspension insulators, and wires. The drones can also identify any vegetation encroachment that needs attention, from trees at risk of falling to vine growth on a guy wire.

Clinton Foster, Ozarks Electric’s Right-of-Way Coordinator, is excited about the ability of the drone program to facilitate the management of contract right-of-way clearing and herbicide crews. “There’s tons of room to grow with the technology and it shows our members that Ozarks Electric is on the cutting edge.”

Brad Westphal, Honeywell’s Senior Director of Product Marketing for Commercial UAV, views the relationship with Ozarks Electric as a proof of concept for other utility companies. “Collaborating with the Ozarks team was really terrific,” he says. “By working together, we’re able to understand the exact images and data analytics required to get dramatic business results and maximize their ROI.”