



USA

TRANSMISSION LINE INSPECTION

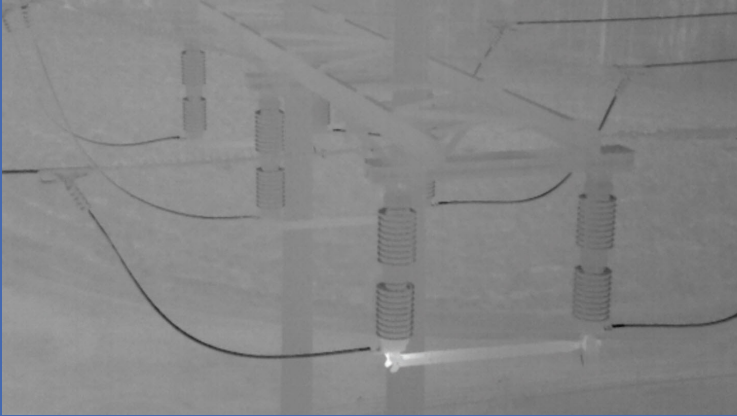
A DJI Inspire Unmanned Aerial System



Rough Terrain Inspection



Drone Flies The Lines



Hot Spot Detection on Switch



Splitting Pole Top

CATALOGING 'ABNORMAL SITUATIONS' OR 'AREAS OF CONCERN'

The Challenge

When Wake Electric needed help inspecting 43 miles of transmission lines with 647 structures, System Engineer Chris Wright opted to get bids from two helicopter companies with infrared cameras and the Preformed Line Products Asset Management Service.



We typically inspect on foot but there are so many things you might miss. With 360 degree views, you capture information you wouldn't normally get on foot patrol. We like to entertain and try new technologies, and with the comprehensive summary reporting format we received, this was the best option for us.

Financially, it was the better option to go with. We set the schedule. They were great in meeting the scheduled timeframe, but had some weather hiccups. We were quoted 2 weeks; they started early and stayed late and were respectful crossing yards, fields and pastures. We wanted to disrupt folks as little as possible; the PLP/UAV crew was great.



ACTIONABLE REPORTING BY INDUSTRY EXPERIENCED ENGINEERS

The Solution

In 13 days of inspection, the PLP/UAV crew from Cleveland, OH and Tuscon, AZ, cataloged and presented a comprehensive report and real-time data that revealed:

- A hot spot on a switch
- Rotten pole tops
- Missing armor rods on transmission lines
- Hot spots in the wire

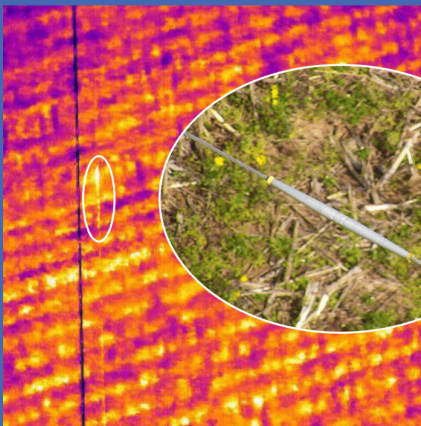
The real-time data is actually sent to a team of engineers in Cleveland, OH, who evaluate it for anomalies and catalog the data into actionable maintenance activities. Also inspected and cataloged were pole types, pole foundations, ground conditions, pole line hardware, insulators and splices - a time stamped and dated document that gives Wake Electric a snapshot of their system to compare with a later evaluation.



It is one thing to fly the lines and take the pictures, but a big part is taking the photographs, organizing and, analyzing them and getting that information back to us in a readable format. That's what they did.

WOULD YOU RECOMMEND THIS SERVICE TO OTHERS?

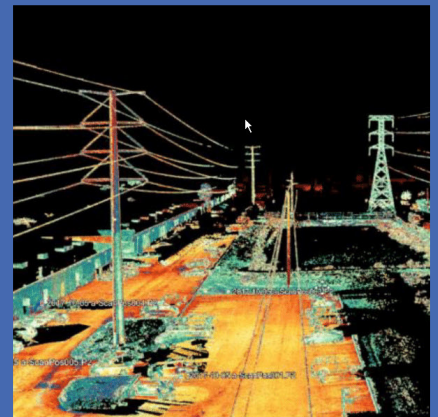
Certainly, 100%. For our guys to inspect all of our transmission lines, as busy as we are, having another company come in and do it frees up critical resources. Maintenance like this has been a big help and big time-saver for our guys.



IR Analysis



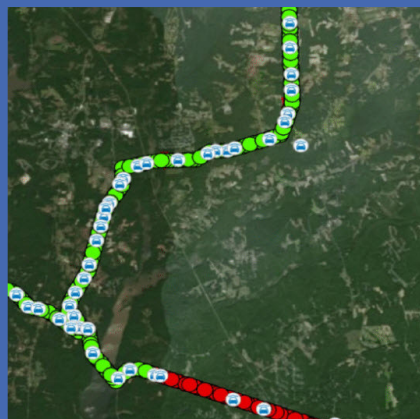
Hardware Assessment



LIDAR Data



Woodpecker Holes



Inspection Map



Flight Service Provider