

Helicopter patrols lift off with modern technology

Author: test

National Grid's Bell 429 helicopter, mid-takeoff

This spring, the Aviation team acquired a new Bell 429 helicopter and it's already proving its worth.

Transmission Line Services (TLS), Gas Operations and Vegetation teams rely on the helicopter's unique vantage point to conduct routine surveillance and proactively spot issues with transmission, sub-transmission and gas lines. Going from a single-engine to a twin-engine helicopter with greater speed, lift, and fuel capacities means more efficient trips. Time spent in the air is more productive and visibility is improved, particularly in the cabin, so inspections are easier to conduct.

Assistant Chief Pilot, Adam Wiediger, explains the positive impact to his flight schedule. "Regional Annual Patrols usually take about 10 days to complete. Before acquiring the new helicopter, we estimated that we would cut that time by 25 or 30 percent. With the new one, it's now down by half. We recently completed the eastern region of upstate New York for TLS in five days instead of the typical 10."

"Fewer days spent on trips means lower expenses for the pilot, the observer and the Aviation Department," said Aviation Manager Michael Lawyea. "We save on overnight stays, meals and lodging, and overnight time in a hangar for the helicopter."

Flying longer without stopping for fuel also has its advantages. Aviation can better facilitate joint patrols and support wide-spread outages. "We recently flew a post-fault patrol from Syracuse to Rochester, then another from Lockport to Niagara and back to Syracuse in two and a half hours. In the old helicopter, it would have taken four hours of flight time, an added break to refuel and potentially an overnight stay with meals," Lawyea said.

Aviation isn't just enjoying quicker trips. They're completing flights that previously wouldn't have happened at all. "We made at least six trips in the past month that would've been canceled using the old helicopter due to high winds. With the new

helicopter, we don't even feel those same winds that would've grounded us before." Wiediger said.

The helicopter also has a high-tech sensor system, including:

- HDTV and Infrared
- A high-resolution still camera to capture and record images for our use, or in partnership with other companies
- The ability to communicate with our Mobile Emergency Operations Center (MEOC) and Operations teams in the field

These tools can enhance how we share information about the scope and nature of weather events and damage conditions in real time – a tremendous benefit to the efforts of responsiveness and customer safety. Once fully operational, the sensor system will be a significant asset to National Grid. Aviation is now focused on adding a Mission System Operator (MSO) to the team. The MSO will manage the sensor during flights, making the addition a necessary next step in putting the sensor to work with full use of its capabilities.

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