

Power Line Inspection



Power lines must be inspected regularly to ensure power is being supplied dependably to consumers and to reduce the supplier's expenses resulting from energy dissipation. A problem arises when the insulators on the power lines become deficient and need to be repaired or replaced.

The power supplier requires an inspection system which can safely check hundreds of power lines spanning several miles in a timely and effective manner.



Solution:

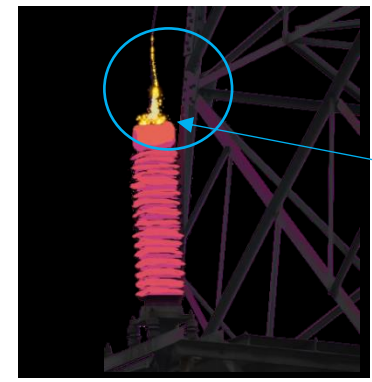
A helicopter is equipped with a camera pod containing an infrared (IR) camera. The helicopter surveys miles of power lines with the IR camera capturing images of each individual power line.

The IR camera is able to detect hot spots, which indicate power being dissipated from defective insulators.

Consequently, the power supplier can safely and easily locate the areas on the power lines needing repair or replacement in a way that is also time efficient.



Within the helicopter's camera pod is an IR camera



IR image of power line insulator

The IR camera collects infrared imagery of the power lines.

Glowing areas of light red, yellow, and white indicate greater heat emissions.

This is an example of an inspected power line that needs repair or replacement.