



Corridor Mapping and Power Line Asset Management

Electric utility companies continually face the challenge of providing an adequate energy supply to markets with ever-growing demands. To keep up with these demands, utility companies have to plan new power lines (transmission and distribution) and maintain existing power line corridors. Both efforts require comprehensive surveying based on accurate georeferenced measurements.

New power line design and construction

- Identify construction sites
- Survey new line routes and surrounding area to develop DTM
- Optimize/modify during project licensing
- Survey completed line for as-built record
- Route modeling using existing towers and new wire models
- Engineering analysis/calculations: sag analysis, physical parameters, load modeling, thermal uprate
- Failure analysis

Monitoring/change detection

- Vegetation encroachment analysis
- Failure/accident/disaster analysis
- Modeling/prediction of weather-related changes

Ultra-compact design

To serve this segment of the lidar community, Optech developed a new class of airborne lidar mappers, the ALTM Orion. The Orion-C was designed specifically for maximum efficiency in corridor mapping applications. At 57 pounds and a 1-cubic foot volume, the Orion-C is the lightest and smallest complete lidar solution in the marketplace.

Designed for minimum space and maximum efficiency, the Orion-C consumes less than 280 W, a drastic reduction from conventional power-hungry instruments. Consuming less power even in full operational mode enables multiple payloads on small aircraft platforms, a crucial consideration in corridor applications using multi-sensor data collection methods.



Orion installation

