



Rufous™ Unmanned Aircraft System for Utility Distribution Survey

Versatility. Manoeuvrability. Performance.

The use of high-definition unmanned aircraft system (UAS) video surveillance techniques for routine and specialist inspection of utility distribution networks is a means of improving the economy, speed, safety and coverage of survey through the collation and provision of permanent, geo-referenced visual, thermal and digital records.

The Rufous™ remote sensor capability provides the ideal overview of construction sites, route analysis planning or protection of existing infrastructure. The stable aerial platform, with its electro-magnetic protected body, provides the versatility that allows close-up 360° viewing of your assets and infrastructure, providing greater opportunity to assess its condition and its layout within the surrounding areas. This is achieved with enhanced environmental performance and whilst minimising the risks associated with manned helicopter surveys.

Routine Corridor Survey

The Rufous™ UAS can be utilised to conduct in-depth, methodical remote survey operations on power and pipeline assets. Using GPS-based geo-locating navigation a suite of assets can be surveyed quickly, efficiently and economically to capture digital and photographic imagery for a wide variety of requirements, including:

- Asset damage or degradation.
- Vegetation encroachment or stress.
- Storm and flooding damage.
- Third party activities.
- Ground level monitoring.

- Feature detection.
- Identification of change.
- Corridor access planning.
- Topographic mapping of asset corridor.

Specialist Survey

The Rufous™ UAS is a modular vehicle capable of carrying multiple specialist payloads and sensor equipment as required by the customer. These quick role-changes can significantly reduce the need for manned helicopter flights and personnel-at-height inspections, whilst still allowing the local Linesman or engineer to have direct, real-time control over the sensor asset and immediate use of the obtained data. The excellent flight stability, electro-magnetic protection and gust response of Rufous™ will be critical to satisfying key survey requirements, including:

- Infra-Red survey for hot-spot detection.
- Danger tree evaluation.
- LIDAR high-resolution inspection.
- Detailed catenaries survey.
- Tower deformation analysis.

Storm effects analysis

Immediately following an anti-cyclone or blizzard event, and during a flood or icing condition the Rufous™ UAS can be brought into action across remote locations and when climate conditions may still bar traditional helicopter assets from flying. The rapid deployment and feedback capability of the Rufous™ system will satisfy post-storm requirements for:

- Storm damage assessments.
- Ice accumulation analysis.
- Geo-location of critical conditions.
- Before-and-after evaluation.
- Rapid response to changing ground conditions.
- Emergency access planning.

- Temporary communications relay.
- Precision, emergency small-scale delivery service.
- Broadcast-quality visual graphics.

Contact Us

To discuss your particular requirements and what we can do to help, please contact us at:

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