

Wind Turbine Inspection Services

Summary

Airframe Media is proud to present this comprehensive proposal for drone inspection services tailored to the wind turbine industry. With cutting-edge drone technology and a commitment to excellence, we aim to provide unparalleled detailed reports on wind turbine structures, specifically focusing on the critical blade edges and structure reports. Our services are designed to address the unique challenges faced by wind turbines, ensuring safety, efficiency, and cost-effectiveness.

Service delivery key points

Live Turbine Diagram

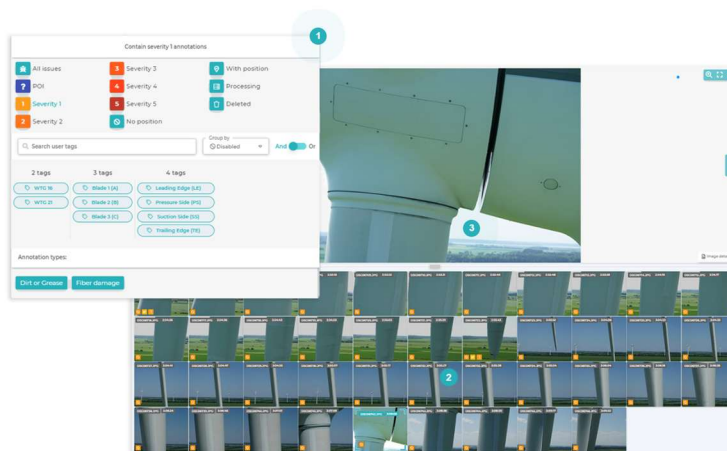
Always know the exact location of a defect on the blade, the diameter of the defect and the distance from root, with this unique tool developed in collaboration with Natural Power.

High quality reports

Filters and reporting work together, to ensure that your PDF reports contain exactly the information you need. Use a standard template or modify your report using our preview editor.

Powerful image analysis tools

Identifying and annotating defects is a breeze thanks to endless zoom, fast loading and keystrokes. Prefer to outsource analysis? With our experts and AI easy to offload.

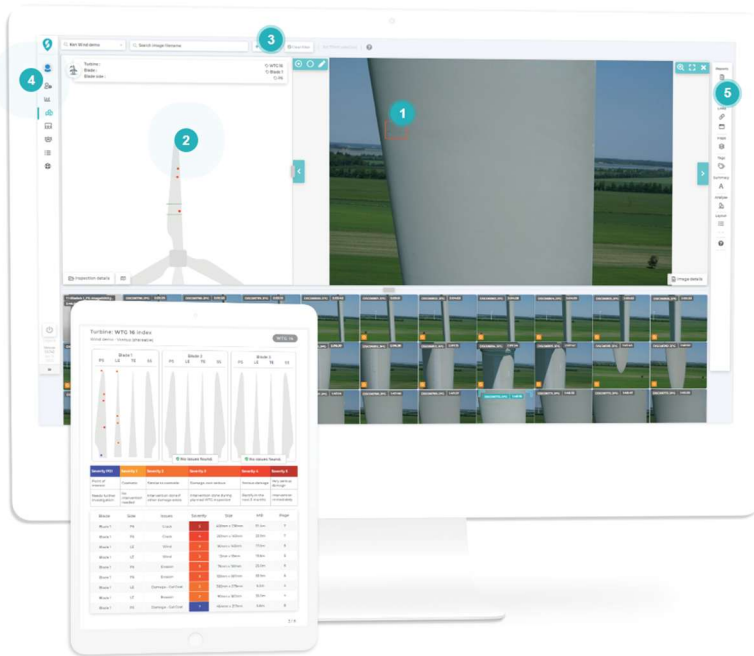


SAP integrations

Detected faults are easily dispensed to work order tickets for your maintenance team. This improves the quality of fault information that repair-crews have available, adding to safety.

AI fault detection

Image analysis has never been more effortless. Lean back and watch our algorithms detect defects in your images. It is time-efficient, and lets you spend your hours on more important tasks.



Technical Specifications

Our Fleet:

- DJI Matrice 350 RTK
- DJI Matrice 4T

Specifications:

- IP45 rated weather resistance
- 45-minute flight time
- 6-directional sensing and positioning
- Advanced RTK positioning system
- Payload capacity up to 2.7kg
- Triple payload configuration capability

Specifications:

- Contact-based inspection capability
- Highly maneuverable in complex environments
- Specialized for vertical structure inspection
- Advanced stabilization systems

Advanced Camera Systems:

- Zenmuse H20T
- 20MP Zoom Camera
- 640x512 Radiometric Thermal Camera
- Laser Range Finder
- Wide-angle camera
- Infrared Thermal Camera

Inspection Methodology

Our systematic approach ensures comprehensive coverage and reliable results:

Pre-inspection Planning

- Site assessment and risk evaluation
- Weather condition verification
- Flight path programming
- Stakeholder communication

Inspection Zones

- Leading edge detailed scan
- Trailing edge inspection
- Root-to-tip blade assessment
- Hub and nacelle examination
- Lightning protection system verification

Data Collection Process

- High-resolution photography
- Thermal imaging scans
- 3D mapping where required
- Real-time data transmission
- Backup data storage

Deliverables

Our comprehensive reporting package includes:

- Detailed digital inspection reports within 48 hours
- Executive summary
- Damage mapping with severity classifications
- Repair recommendations
- Historical comparison data
- GPS-tagged imagery
- Thermal analysis results

Risk Mitigation

Our comprehensive risk management includes:

- Detailed risk assessments for each operation
- Weather monitoring systems
- Emergency response procedures
- Equipment redundancy protocols

Environmental Commitment

At Airframe Media, we are committed to sustainable practices that align with the renewable energy sector's goals. Our environmental policies include:

- Carbon-neutral flight operations
- Use of electric vehicles for site visits



- Digital-first documentation to reduce paper waste
- Responsible equipment disposal practices
- Support for local wildlife preservation initiatives

Insurance and Liability

We understand the importance of risk management in our operations. Airframe Media maintains comprehensive insurance coverage, including:

- £10 million public liability insurance
- Professional indemnity insurance
- Drone-specific coverage
- Equipment insurance
- Operator liability coverage

This ensures that our clients are protected against any potential incidents during our inspections.

Team Expertise

Our team at Airframe Media is comprised of highly skilled professionals with extensive experience in drone operations and wind turbine inspections. Key qualifications include:

- CAA-approved drone pilots
- GVC certified operators
- GWO via WINDA certified

We invest in continuous training to ensure our team stays at the forefront of industry standards and technologies.

Value-Added Services

In addition to our core inspection services, Airframe Media offers the following value-added services:

- 3D modeling of turbine structures for detailed analysis
- Predictive maintenance analysis to anticipate potential issues
- Custom reporting solutions tailored to client needs
- Integration with asset management systems for seamless data flow

Quantifiable Benefits

Our drone inspection services provide tangible benefits to our clients, including:

- 60-80% reduction in inspection and down time compared to traditional blade abseiling inspections.
- 50 – 60% reduction in cost of inspection compared to rope access assessments
- High accuracy in defect detection

Client Support

At Airframe Media, we prioritize client satisfaction through our dedicated support services:

- 24/7 technical support availability
- Assigned account managers for personalized service
- Regular progress updates during inspections
- Quarterly review meetings to discuss performance and future needs

Pricing Structure

We offer flexible pricing options to meet the diverse needs of our clients:

- Per turbine inspection rates: £480 Includes a detailed report.
- Volume-based discounts for multiple turbine inspections: - 10%
- Annual service contracts for ongoing maintenance: - 15%
- Emergency inspection rates for urgent situations: £900 Includes a detailed report.
- Expert Analysis Option: For an additional £120 per turbine, our team of experts will provide in-depth analysis of the inspection data, offering insights and recommendations beyond the standard report. Our transparent pricing structure ensures that clients receive exceptional value without compromising on quality or safety.

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Emergency Response

In the event of an emergency, Airframe Media is prepared to respond swiftly:

- 24/7 emergency call outs for immediate assistance



- 2-hour response time for critical situations

Compliance and Training

Airframe Media maintains meticulous compliance with industry standards and regulations. Our team undergoes:

- Skilled flight training
- Regular updates on safety protocols
- Continuous education on the latest drone technologies
- Up-to-date UAS certificates and accreditations, including GVC and OA (Operational Authorization)

This ensures that our operations are conducted safely, legally, and to the highest professional standards.

Conclusion

Airframe Media is dedicated to providing industry-leading drone inspection services for wind turbines. With our advanced technologies, deep understanding of industry challenges, and unwavering commitment to safety and quality, we are confident in our ability to deliver exceptional results. We look forward to the opportunity to work with you and support the maintenance and efficiency of your wind turbines.