

COPTRZ™

CASE STUDY

Innovair

innovair 

Innovair uses DJI M300 RTK drone with the Zenmuse P1 for precise construction monitoring at Inch Cape Wind Farm's substation of 72 new turbines

About Innovair

Innovair is a specialist inspection solutions service provider focused on driving innovation through the development and deployment of advanced inspection robotics. With over 40 years of experience in inspection and robotics, Innovair helps customers to understand their environments, maintain asset integrity, reduce risk, and improve productivity.



Situation



Inch Cape Offshore Wind Farm, located 15 kilometres off the Angus Coast in the North Sea, is progressing towards construction and will feature up to 72 turbines. The project required a solution to provide clear visibility into the construction activities of a new substation in Cockenzie. Effective decision-making and communication among stakeholders were critical for the project's success.



Inch Cape needed a reliable local supplier to integrate advanced technology, preventing delays and supporting the regional economy.

Drone Technology

After partnering with Innovair, Inch Cape Wind Farm experienced a significant transformation in their monitoring and inspection capabilities. Innovair's deployment of the M300 RTK Inspection Drone system and the P1 Zenmuse payload, supplied by Coptrz, provided the advanced solution required:



High-Resolution Data

The DJI Zenmuse P1 on the M300 drone provided 45MP geotagged aerial images and HD Video Flyovers, offering detailed and accurate visual data.



Consistent Data Collection

Planned drone missions ensured data was collected along the same flight path, providing a holistic and comparable view of construction progress week by week.



Enhanced Decision-Making

The detailed and time-stamped data facilitated proactive decision-making and communication among stakeholders, reducing the risk of delays and issues.



Efficiency and Accuracy

Automated data collection expedited the monitoring process, ensuring accurate capture of intricate details and optimising decision-making.



Real-Time Information Exchange

Data was seamlessly transferred electronically to stakeholders, ensuring real-time exchange of information and contributing to the overall success of the project.

The DJI Matrice 300 RTK

With a maximum flight time of 55 minutes, advanced AI capabilities, six-directional sensing and positioning, and the ability to carry three payloads simultaneously, the IP45 rated M300 drone sets a new standard, blending intelligence with reliability.

DJI Zenmuse P1 Payload

DJI Zenmuse P1 is a highly accurate 45MP full-frame photogrammetry camera, with a mechanical shutter and interchangeable fixed-focus lenses.



45MP Full-Frame Sensor

This high-resolution, low-noise sensor with a pixel size of 4.4µm captures detailed data for photogrammetry and mapping at a significantly high-resolution.



10x More Efficient

Its high resolution enables higher altitude flights while maintaining data integrity, significantly enhancing efficiency—up to ten times more than other drone models.



TimeSync 2.0

Synchronises the camera, flight controller, RTK module, and gimbal to the micro-second, ensuring precise geospatial data alignment.

Drone Adoption

For over six years, Coptrz has supplied Innovair with cutting-edge drone technology, including the M300 RTK Inspection Drone system and the P1 Zenmuse payload, along with comprehensive training and support. This partnership has enabled Innovair to deliver exceptional results for Inch Cape Wind Farm.



Coptrz Drone Solutions



Hardware and Payloads

High-quality drones and payloads tailored to the specific needs of inspection and monitoring.



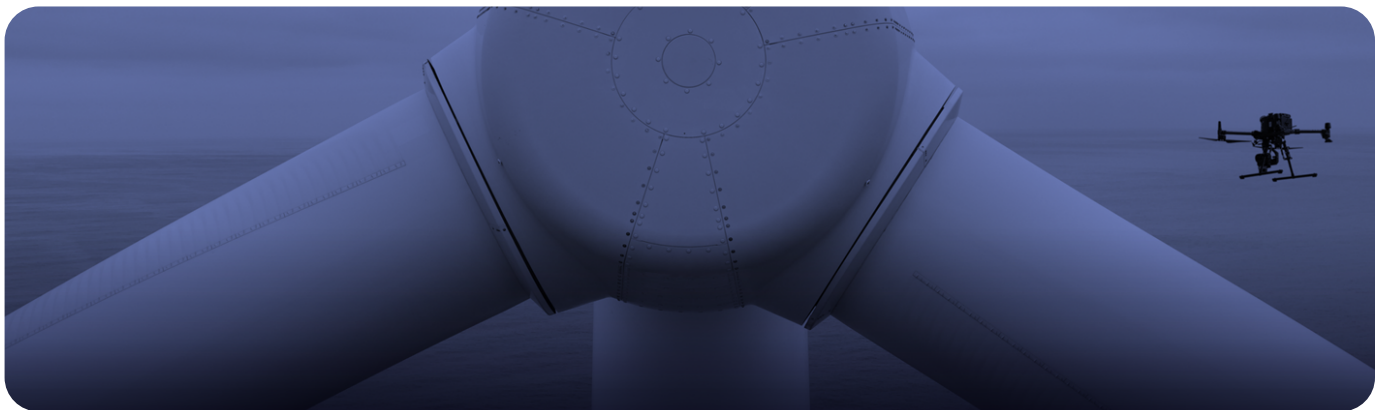
Software and Training

Advanced software solutions and professional development courses to maximise the effectiveness of drone operations.



Repairs and Consultancy

Ongoing support, repairs, and consultancy to ensure continuous operation and innovation.



Unlock Faster, Safer, and More Efficient Operations

Contact us today to explore the benefit of drone technology for your organisation

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