

CASE STUDY

Strategic drone delivery

“Modini’s approach, professionalism and integrity were faultless and our drone programme is delivering pioneering results.”

Director, Confidential drone programme

The challenge

The future is moving from a manned to a combined manned/unmanned environment where drones will become a fixed feature in the skies. Owing to the significant safety considerations, civilian drones can only currently operate in UK airspace with special clearance and in a restricted manner. The client asked Modini to help them find a way to apply and, where appropriate, challenge these regulations enabling them to fly specialist drones more flexibly and without the need to apply for clearance every time.

The Modini solution

Modini provided three core capabilities specifically chosen to operate the Schiebel S-100 drone. Modini staff are largely ex-military, with aircrew who are qualified service pilots or hold an ATPL. Modini engineers hold significant competency with both manned and unmanned systems, operate within a Pt145 environment, and are developing a novel approach to maintenance operations under a Modini owned Continued Airworthiness Organisation (CAO) certification. Significantly, Modini provided an Operational Analysis (OA) function that provided programme, live and post-mission analysis, which in turn was critical to the client and fed directly into their strategic assessment meetings to drive capability development.

Modini’s operational delivery and OA framework demonstrated unwavering commitment to safety and regulatory standards, having to mesh inside a Civil Aviation Authorisation (CAA) Part-145 engineering system. This had never been done before, and was seen as pioneering in the industry: **This was just the beginning.**

Pioneering aviation expertise

Modini has a demonstrable track record in drone programme delivery and was the first company to deliver daily, long range, unmanned aircraft operations in the UK civilian market. Modini currently operates a dedicated team of aviation engineers and aircrew, and is pioneering the CAO structure for drones with the CAA. This is a first of its kind delivery model.

Key benefits

- Pioneering aviation delivery
- Fully integrated project team
- Highly qualified expertise in drone project delivery
- Operational analysis offering clinical insights to the client’s target operating model



475
flight hours



of its kind
aviation integration



Bespoke
drone solutions

CONFIDENTIAL DRONE PROGRAMME

About Modini

Modini mobilised their delivery team to conduct type-specific pilot and engineering training overseas, while simultaneously designing a trials programme to demonstrate the current capability of drones in UK airspace.

On completion, Modini designed and built the infrastructure that would support a Class 2 drone (150 kg+) that was capable of operating over 100 Nm from its ground control station up to an altitude of 12,000 feet.

Our operational analysis team recorded the outputs from each sortie, which informed the future flight programme with a view to optimising operational procedures and system wide capabilities. These advancements offered the optimum solution for a number of high-profile users within complex airspace. The employment of the operational procedures is redefining the way the optical sensors are being employed and therefore influencing the design and regulatory landscape of future unmanned air systems.

- 1 Mobilisation
- 2 Establishment
- 3 Operational Delivery
- 4 Operational Analysis
- 5 Creating bespoke operational procedures

Founded in 2016, Modini provide programme delivery expertise specialising in projects which are complex, nuanced and often ambiguous. We are leaders in innovative and pioneering approaches to multifaceted problems, bringing adaptability, flexibility and momentum to the whole life-cycle of a programme.

We work as part of a fully integrated team, solving the toughest challenges with an unwavering focus and drive that is a direct result of our military experience. The core team offers the optimum blend of skills that are essential for honest and reliable programme delivery. Our holistic offer is further enhanced by some of the brightest minds from industry and academia, providing the problem-solving and ambitious attitude that forms the basis of Modini's ethos.

In providing a critical, cross-sector analytical framework from the outset, Modini focuses on the desired outcome, assessing all available strategies to deliver a risk mitigated, time optimised solution. We are not fazed by the scale or complexity of any programme, which is evidenced by our track record both corporately, and as individuals.

"Modini focuses on pushing boundaries, affording our brilliant teams the freedom to do what is in the best interest of the client, ultimately delivering the outcomes which are critical to programme success."

Nick Sharpe, CEO



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