

# Unmanned Air System Development

...innovative design for higher capability and lower through life cost ...from Cranfield Aerospace



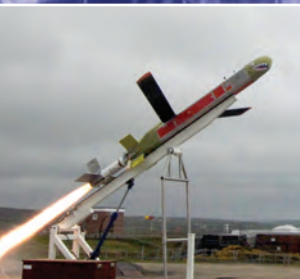
...with a reputation for  
**market leading innovation**



**Cranfield Aerospace (CAe) offers customers a complete end-to-end service for the design, development and manufacture of Unmanned Air Systems (UAS).**

Over the past 20 years, CAe has established a reputation for market leading innovation in UAS and have made major contributions in the area of research aircraft for the UK MOD. CAe has worked on many UAS projects for a number of different clients, including Boeing Research and Technology. CAe's experience allows it to work closely with the customer from initial requirements capture, concept generation and down-selection, through system design, build and test to manufacture and support. Using its ability to engineer innovative solutions to meet the needs of today's theatres of operation, CAe is able to develop systems which offer higher operational capability but for reduced through life cost.

- Advance concept engineering
- Rapid prototyping
- Support to certification
- System design, build and test
- Design for manufacture
- Reduced through-life cost





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CAe's well established reputation has been built on many years of practising 'extreme innovation' which, when combined with our MoD and Civil approvals and the deployment of comprehensive resource at Cranfield, provides a turnkey capability for the provision of world leading and highly effective unmanned air systems and subscale flight demonstrators.

- **Advanced flight control systems**
- **Autonomy**
- **Gust-insensitive technology**
- **Ground Control Station**
- **Subsystem integration and flight test**
- **Flight clearance support**
- **Flight trials management**

Development of sub-scale flight demonstrators for concept proving and project de-risking



**Min0**  
1.4m span, 11kgs  
Fully autonomous point & click operation.  
Gust-insensitive advanced control



**Valkyrie**  
ISTAR support for ground troops, special forces operations and counter-terrorism  
VTOL, minimal ground support equipment



**X-48B**  
Boeing Research & Technology  
Mass and inertially scaled, 8.5%, subscale demonstrator  
6.4m wingspan  
80 test flights so far



**Observer**  
Fully autonomous battlefield observation system

End-to-end service for the design and manufacture of Unmanned Air Systems

Website: [www.cranfieldaerospace.com](http://www.cranfieldaerospace.com)  
Email: [enquiries@cranfieldaerospace.com](mailto:enquiries@cranfieldaerospace.com)

