



Small but critical

Producing small parts rapidly to ensure aircrafts remain airborne

BAE Systems saw 60% in cost savings through Additive Manufacturing compared to conventional manufacturing.

BAE Systems is a British multinational defence, security and aerospace company. Its headquarters are in London with operations worldwide. It's the largest defence contractor in Europe and among the world's largest defence companies.

As part of its ongoing spares support for the BAE 146 regional airliner, the company needed to replace a small breather pipe which forms part of the cabin windows and stops the windows misting up.



3T working with

BAE SYSTEMS



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BAE Systems Regional Aircraft provides support and engineering services for its in-service fleet of some 500 commercial aircraft worldwide.

The part had originally been made using injection moulding, but the tooling had become damaged and replacement tooling was expected to take months to produce, and cost over £10,000.

The Regional Aircraft team at Preswick realised that additive manufacturing could provide an elegant solution to this problem. They designed the replacement breather pipes which were prototyped by their colleagues at the BAE Systems Military Air & Information. Regional Aircraft then worked with 3T-am to develop the product for production.

METHOD	PRODUCTION TIME	FINISHING TIME	LEAD TIME
CAD	3 days	1 day	2 weeks
Build	8 hours	2 hours	2 weeks
Savings	178 days	181 days	26 weeks

After working with 3T-am, the production timeline reduced from six months to four weeks with the parts now in stock at BAE Systems Regional Aircraft's spares warehouse.

“Having achieved this first breakthrough, we are now looking at a range of 3D printing opportunities.”

Philip Beard,
Structures Support Manager



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