



Shorts Tucano

WS P164 PC9

Replacing the Jet Provost in RAF service

By 1980 the RAF's dependable but elderly BAC Jet Provost jet trainer was rapidly reaching the end of its shelf life, and the Service began exploring the hardware options available to meet its future training requirements. **JAMES JACKSON** takes a look at the resulting procurement process, which dwindled from an initially crowded field to a two-horse race



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BY THE EARLY 1980s the BAC Jet Provost had been the mainstay of the RAF's basic flying training fleet for two decades. In late 1981 the Air Staff began planning its replacement for the early 1990s. At a time when defence spending was under review, the balancing of capital and operating costs was vital. The ideal solution appeared to be a turboprop-powered basic training aircraft that could be acquired "off the shelf" with potentially large cost savings.

The resulting request for tenders attracted proposals across four continents and resulted in the selection of the Brazilian-designed Embraer EMB-312 Tucano, which in partnership with Belfast-based Short Bros resulted in the Short Tucano T.1, which was retired from RAF service in October 2019 after a successful 30-year career. As with most critical RAF procurements, the process was a mixture of technical assessment, lobbying and political manoeuvring.

New trainer for a new decade

In December 1981 the Commander-in-Chief of RAF Support Command, Air Marshal Sir Michael Beavis, outlined the possible options and their potential costs.¹ Conserving the Jet Provost fleet until 2000 would require refurbishing 82 T.3As and 43 T.5As at a cost of £60m, plus operating costs of £1.14bn. Buying 120 new EMB-312 Tucanos would cost £76.9m plus running costs for

102 aircraft until 2000 totalling £558m. The Swiss Pilatus PC-7 worked out cheaper at £65.9m and £405m. Against these potential savings a national solution looked prohibitively expensive. The British Aerospace (BAe) design team at Brough in Yorkshire was working on its P.164 series of basic trainers. The turbofan-powered P.164-12 would cost £45m in development costs and 120 aircraft would cost £136.8m, with running costs of £669.8m until 2000 for 102 aircraft.

Other events confirmed that an entirely new aircraft would indeed be needed; the discovery of fatigue cracks in several Jet Provost T.5 fins in April 1980 led to a series of urgent emergency repairs. The aircraft's fatigue life was extended beyond 1982 with the fitting of a total of 38 spare and 20 new sets of wings, but a major refurbishment to extend the type's service life for another 20 years was economically unfeasible.

With the 1981 Defence White Paper and the Falklands War in 1982 having focused attention elsewhere, approval for a new training aircraft from the Air Force Board did not materialise until late 1983. Air Staff Target AST.412 was issued on November 30 that year for 155 basic-training aircraft with an in-service date of 1989. A supplementary war role with provision for underwing stores was added to give the Ministry of Defence (MoD) freedom of action during the procurement process; AST.412 was identified as a "warlike store", thereby making the programme

TOP The Jet Provost T.5 was a pressurised variant of the T.4, modified to reflect the increasing emphasis placed on high-altitude training from the mid-1960s. The first production example joined the RAF in September 1969. Luton-built T.5 XW318 is seen here on a photographic sortie during the SBAC show at Farnborough in 1970.