

Jet Provost Design & Development

First Came The Piston Provost:

The Predecessor of the Jet Provost was the **Percival P.56 Provost** which was a British ab-initio trainer developed for the Royal Air Force in the late 40's early 50s as a replacement for the Percival Prentice. It was a low-wing, monoplane with a fixed undercarriage and a tail wheel and had an unusual side-by-side seating arrangement. The Piston Provost has the distinction of being the last piston-engine basic training aircraft to be operated by the RAF. The piston Provosts primary roll was for ab-initio pilot training.

The aircraft was manufactured by Percival Aircraft and first flew on 24th February 1950. Production commenced later in 1950 and ceased in 1956. The aircraft entered service with the RAF in 1953 retiring in 1969. A total of 461 were built and several were operated by foreign air arms.



Jet Provost T1



In the 1950s the RAF issued a requirement for a new dedicated jet training aircraft. Hunting Percival developed the Jet Provost which takes its lineage directly from its predecessor the Piston-engined Percival Provost basic trainer.

On 16 June 1954, the prototype *XD674* made its first flight from the factory at Luton and was flown by Dick Wheldon & the Air ministry immediately ordered 10 of the T1's for evaluation purposes.

The T1 is easily distinguished from later models due to its uncharacteristically long undercarriage, a seemingly unnecessary carryover from the piston provost which needed ground clearance for its propeller.

Jet Provost T2



Hunting Percival decided to carry out a project to design a T.2 version. This would eliminate any problems that had shown up in the previous T.1's and make some improvements on the design. XD694, the last production T.1, was selected as the first development aircraft, and work began on converting it into the prototype T.2.

XD694 took its first flight as a T.2 on September 1st 1955, and accumulated over 400 flying hours during its flying career. Three other T.2s were built, two were registered to the company, G-AOUS and G-AOHD. G-AOUS was the company demonstrator and was fitted with the more powerful Armstrong Siddeley Viper 11 capable of 2500lbs of thrust. The last of the four aircraft built was not given a military or civilian registration, but a 'B' class identity G-23-1.

With the new Improvements the reputation of the Jet Provost began to increase still further and the RAF was beginning to take notice of this newly updated type. In addition the results of the T.1 trials at Hullavington were good and hopes were high at Luton of a big follow-on order from the RAF.

Jet Provost T3



In June 1957, an order was duly placed for the first 40 of the developed **Jet Provost T3**, featuring a more powerful Armstrong Siddeley Viper jet engine, ejector seats, a redesign of the airframe, and a shortened and strengthened version of the retractable tricycle undercarriage. In total, 201 T3s were delivered between 1958 and 1962.

The Jet Provost T.3 was exported to three countries, and classified as the Jet Provost T.51. Ceylon ordered 12 aircraft, Sudan received 4 examples and lastly Kuwait bought 6 aircraft

When the last T.3's were coming off the production line Hunting-Percival began development work for a new improved variant the T4, hoping that the RAF would make a further order.

Jet Provost T4



Hunting-Perceival was again looking into improving the design in the hope the RAF would make another large order. The company utilised three existing airframes, T2 G-AOUS and 2 Mk3s XN467 and XN468 to help develop the new design. The resultant T Mk.4 made its first flight in the summer of 1960, and Hunting Perceival had high hopes of success with the new design.

In late-1960 the RAF, impressed by the 'new' T4 placed the crucial follow-on order for 185 Jet Provost T4's with Hunting-Perceival. The Mk.4 differed from the Mk.3 with a more powerful engine, the Armstrong Siddeley (later Rolls Royce) Viper 11 (Viper 201) being installed instead of the Viper 8 used in the earlier order. The rest of the airframe, apart from minor improvements remained unchanged.

The first production aircraft of the order (XP547) was test flown on 4th August 1961 and, like the first examples of the T.3's delivered was sent to the Aircraft Armament & Experimental Establishment (AA&EE) at Boscombe Down for testing. First deliveries to RAF squadrons began in November 1961.

Jet Provost T5

The RAF realised that their high altitude pilot training programmes were restricted because the Jet Provost T.4 was not pressurised. The response to this was to begin development of the T5, an all new pressurised version. To achieve this, the last two T.4s were used for development XS230 & XS231.



On seeing the finished design and after some deliberation the RAF made a firm order for yet more Jet Provosts, this time 110 T.5s.

The first example completed was XW287 and was handed over to the Central Flying School Little Rissington on 3 September 1969. Deliveries to the RAF College Cranwell & Linton-on-Ouse followed as initial users of the type. Other units such as 3, 6, & 7FTS also operated the type.

The T5 also saw development, 1973-75 saw upgraded avionics installed making it now a T5a, several airframes were not upgraded and transferred to RAF Finningley for low level navigation training. Tip Tanks were however fitted to extend their endurance & these were known unofficially as the T5b.

The T5 finally gave way to the Shorts Tucano and was retired from RAF service in 1993, an impressive 39 years after the first flight of the T1.

BAC 167 Strikemaster



The concept of the Strikemaster (initial designation BAC166) resulted from the export success of the JP T5. BAC began designing the aircraft to perform a training & light attack role at a price smaller nations could afford, thus improving export opportunities.

The prototype first flew on 26 October 1967 & similarities with the T.5 were clearly evident, however this aircraft had several additional features. The airframe was strengthened, an up-rated Rolls Royce Viper engine of 3410lb thrust was fitted. Eight hard-points were installed beneath the wings which could carry drop tanks, rockets, bombs and napalm. It also had a comprehensive avionics fit, upgraded ejection seats & 2 Frazer Nash Machine guns each with 550 rounds of ammunition. The Strikemaster was now designated BAC167. The all up weight however had increased to 5,216kg (11,500lbs) 1136kg (2500lbs) above that of the JPT5.

Foreign air arm operators included the Saudi RAF, Omani RAF, South Yemen, Kuwait, Botswana, Ecuador, Singapore, Kenya, & New Zealand. Some of these foreign air arms still operate the Strikemaster to this day.

Jet Provost & Strikemaster

Actual Production figures

Type	Number built	Manufacturer	Comments
Jet Provost T1	12	Hunting Percival	Initial production batch for the RAF.
Jet Provost T2	4	Hunting Percival	Development aircraft only.
Jet Provost T3	201	Hunting Aircraft	Main production batch for the RAF.
Jet Provost T3A	(70)	Hunting	Modified T3 with improved avionics for the RAF.
Jet Provost T4	198	BAC	Variant with more powerful engine for the RAF.
Jet Provost T5	110	BAC	Pressurised version for the RAF.
Jet Provost T5A	(94)	BAC	Converted T5 with improved avionics.
(Jet Provost T5B)	(13)	BAC	Unofficial designation: a T5 fitted with tip-tanks used for navigator training.
Jet Provost T51	22	Hunting Aircraft	Export version of the T3 (12 built for Ceylon, four built for Sudan, and six built for Kuwait).
Jet Provost T52	43	BAC	Export version of the T4 (20 built for Iraq, 15 built for Venezuela, eight built for Sudan).
Jet Provost T55	5	BAC	Export version of the T5, built for Sudan.
BAC Strikemaster	146	BAC	Ground attack version of the T5.