

# Hawker Siddeley Gnat T.1

**History:** Development of the Gnat began as a private venture by the British manufacturer Folland to produce a small light weight fighter, one of the holy grails of fighter design that has rarely been successful. The prototype was completed in 1955 and the first flight occurred on 18 July 1955. Six development Gnats were ordered in August 1955 and the first one flew on 26 May 1956. They were used for a variety of tests and were eventually flown in tests to evaluate them in the ground attack role but instead the British chose to develop the Hawker Hunter in the ground attack role so the Royal Air Force had no requirement for the Gnat. However thirteen were delivered to Finland in 1958-59 where they remain in service until 1972. Two were also sold to the Yugoslav government but no further orders were placed. Folland was more successful in selling its little fighter to India which bought 40 airframes in various stages of completion from Britain and Hindustan Aeronautics constructed another 175 Gnats that ultimately equipped eight squadrons in the Indian Air Force.

Although the Royal Air Force had not selected the Gnat as a fighter it did need an unarmed two-seat advanced trainer to replace the deHavilland Vampire T.11s then in service. Folland undertook investigations into converting the Gnat into a trainer, making changes that would reduce its landing speed and give it a two-seat cockpit. The most significant changes included increasing the wing area by forty square feet which increased its fuel capacity, slightly increasing the forward fuselage to accommodate the ejector seats, enlarging the tail and making changes to the wing control surfaces. In 1956 the Ministry of Supply awarded a contract for the design study and in August 1957 ordered a batch of 14 pre-production aircraft. However, the British government was not prepared to place a significant order with a small company that had not been included in the major restructuring of the British aviation manufacturing industry a little earlier and so Folland was taken over by Hawker Siddeley to enable Gnat production to proceed. A total of 101 production Gnat T.1s were eventually ordered between February 1960 and March 1962 and the final production Gnat T.1 was delivered to the RAF on 14 May 1965.

The Gnat became popular and well known by the British public through its performances with the Red Arrows aerobatic team. However the majority of Gnats served in the Royal Air Force in the routine but necessary job of helping to train the air forces jet fighter pilots, a role in which it was finally replaced by the larger Hawker Siddeley Hawk T.1. The first Gnat trainers flew at the No 4 Flying Training School on February 1962 and they remained in service there until 24 November



1978. In 1964 the School formed an aerobatic team of five yellow Gnats called the Yellow Jacks. The following year the team reformed as the Red Arrows under the control of the Central

Flying School and the Gnats continued flying with Red Arrows until the end of the 1979 display season when they too were replaced by Hawks.

**Data:** Twin seat trainer. *Engine* one Bristol Siddeley Orpheus Bor.4 Mk 100 turbojet of 18.82kn (4230lb st). *Wing span* 7.32m (24ft). *Length* 9.68m (31ft 9in). *Maximum take-off weight* 3915kg (8630lb). *Maximum speed* 1024km/h (636mph). *Range* 1852km (1151miles)..

**The kit: Airfix 1:72**

I was certain Airfix had released a kit of the Gnat before it had come out in Red Arrows colours and after I started making this kit I stumbled across an earlier Airfix bagged kit of the Gnat T.1 in the overall silver scheme and yellow stripes on the wings and fuselage of the trainers of the time. That kit also had slipper tanks which have been deleted for some obscure reason from the Red Arrows version of the kit. That trainer version was the first time I made a Gnat kit and I missed the slipper tanks this time around. True, the Red Arrows didn't perform with the attached but they apparently flew with them between venues so they could have remained part of the new kit with no problems and made me a bit happier.



As you would expect, the Airfix kit of the Red Arrows comes moulded in red plastic and it is not hard to imagine them selling like hot-cakes at a display where the Red Arrows had appeared. I'd guess that this kit was released in the early to mid 1960s when the Gnat was still new and exciting. This wasn't the golden era of Airfix kits although the thing isn't too bad. The bits fit together tolerably well but the intakes and the exhaust need to be thinned down to look realistic. It

would be best to make sure that the undercarriage legs line up properly so the usual problem of kits with narrow undercarriages - that they don't sit square on the ground - doesn't rear it's ugly head. (I didn't and the result is that one of the wheels on my model now has a flat tyre so the wings are level with the ground.) Perhaps the most important thing to do is rummage through the spares box to find a couple of relatively decent looking ejector seats to replace the puny looking little things supplied in the kit. Pictures show that the ejector seats seems to have taken up a massive amount of the space in the cockpit so while the seats in the Airfix kit might have made the cockpit more comfortable for the pilots they wouldn't have done much good in an emergency.

One of the advantages of a Red Arrows aeroplane is that painting is very simple with a coat or two of Humbrol 19 (gloss red) to take care of business. At this point I found that the kit was so old that the decals were useless - mainly because the little slip of tissue they put over them to protect them had glued itself to the decals and wouldn't come off. Eventually I solved the problem by picking up a more recent Airfix kit at a swap meet with decals that did work. Like the failed sheet, they offered markings for all of the Gnats in the Red Arrows team so you have lots of options but the final effect isn't much different. To make life somewhat more difficult, but the end result a little better, I cut thin strips of white decal sheet to go around the framing of the cockpit. I'm not sure what it does in real life but it's fairly obvious on the real thing. Then there were a few dabs of silver, black and exhaust coloured paint and the little beauty was finished, and very nice it looks too