

Van ordinaire

*The Miles Aerovan was a worthy but not wholly successful venture, says **David Ogilvy***



*This photo: George Miles pilots the prototype Aerovan in 1945
Below: access to the operating end was through a largish door on the starboard side*

In an earlier report on the Miles Gemini, I made reference to its bigger brother the Aerovan. Since then I have received two requests for more information on this unusual piece of machinery, so I hope that other readers, too, may be interested.

Here it is:-

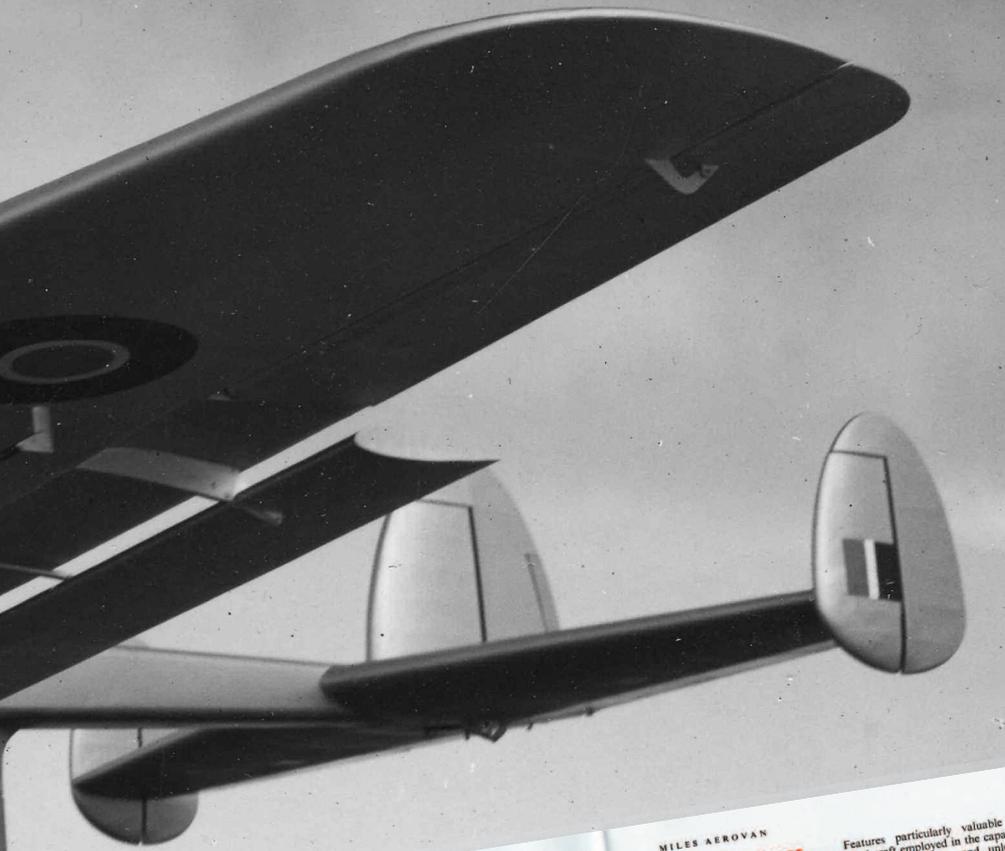
At the end of World War II, Britain had a vast aircraft manufacturing industry, with at least twelve independent companies geared for large-scale production of military machines of all shapes, sizes and roles. Before hostilities ceased, though, many directors and designers put their minds into planning for the time when the demand for Service aircraft would cease, creating a need to find civil markets. Some companies modified existing types to minimise delay, while others created entirely new designs in remarkably short time. Among the latter was George Miles, who overstepped the mark by designing and building a new machine, the Aerovan,



without Ministry permission, flying it as early as January 1945. He was taken to task and ordered not to build another until the war was over.

Understandably, most people think of Miles aircraft as single-engine low-wing monoplanes, for the list of such designs –

both civil and military – is almost endless: the Hawk and its variants, the Falcon, Whitney Straight and Monarch before the War, the Magister, Master and Martinet for RAF service and, as far as large-scale production is concerned, the Messenger after the War are the names that come



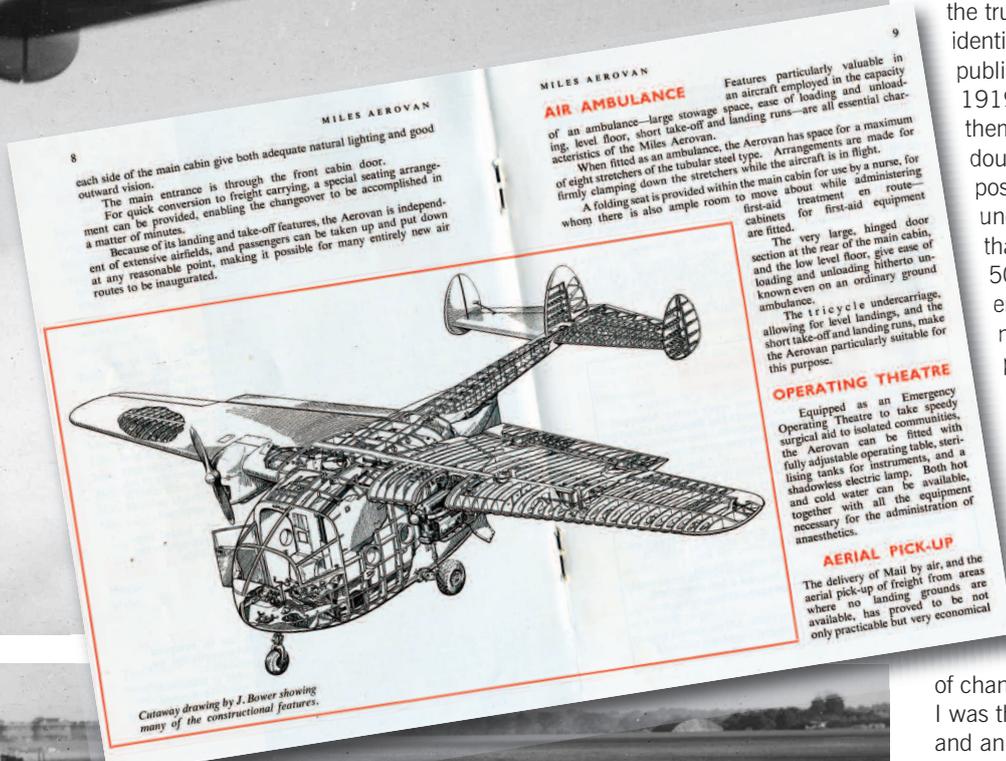
Photos via Phillip Jarrett

freight (or passenger) pod of plastic-bonded material, the rear end of which opened for loading bulky goods onto the cabin floor which conveniently was only two feet from the ground. Motor cars were carried on several occasions, while a quick-change-act to passenger seating made it potentially attractive for mixed operations. Several variants appeared, from the sole Mark I with four rectangular windows each side, the Mark II with five circular windows and a longer fuselage and the III which was almost identical. The main production run went to the Mark IV, with four circular windows each side, a tare weight of 3,000lbs (400lbs lighter than the Mark I) and an all-up weight of 5,400lbs for passenger use or 5,800lbs when functioning as a freighter. When used as a people carrier it could have seating arrangements for 6-10 passengers.

Four independent sources quote different production numbers ranging from 48 to 54, but I believe the higher figure to be the truth, as a breakdown of individual identities appears in the Putnam publication *British Civil Aircraft since 1919* in which A J Jackson accounts for them all. It amazes me that any such doubt can exist with a straightforward post-war production run, while I can understand, for example, the queries that surrounded the much earlier Avro 504. After World War 1, many rotary engined 504Ks were returned to the makers and converted to Lynx-powered 504Ns; apparently some of these retained their original serial numbers while others were given new identities. To add to the problem, some Ns were built new from scratch. No such complication applied to the Aerovan.

My opportunity to come face to face with this interesting machine was by a combination of chance and inexcusable nerve. In 1954 I was the relatively youthful CFI at Elstree and an Aerovan IV arrived to be refuelled. I approached the owner pilot with proverbial tongue in cheek and asked 'When can I fly your Aerovan?' To my surprise and delight he replied 'I'm going in for a coffee. Take it now'. I did.

Access to the operating end was through a largish door on the starboard side. The immediate effect was one of a glasshouse, for from the pilot's seat when facing forward it was possible to see literally in all directions through what seemed a welcome acreage of Perspex. The cockpit was light, roomy and with an essentially civil flavour, which was unusual for a medium-sized twin at that time. The overall feeling, though, was of a relatively light-weight structure and a lot of the airframe rattled and physically seemed to change shape when the first engine was started. However, when power was in



Above: original Aerovan brochure

readily to mind. There were exceptions, of course, including the one-off twin-engined Peregrine light transport of 1936 and, a decade later, the Gemini, but even these were of low-wing layout. So the Aerovan broke well away from Miles traditions, which had developed since Phillips and

Powis Ltd started building Cirrus-powered Hawks at Woodley near Reading in 1933. What was this Aerovan? A high-wing monoplane with a single-spar wing of 50ft span and a pair of 150hp Cirrus Major 3s to provide the power, it was of typically-Miles wooden construction with a large

business on both sides the situation seemed more comfortable.

The Aerovan was a tricycle machine in a largely tailwheel world. Nosewheel steering was possible by coupling to the rudder bar, or the front leg could be left free to castor with the use of differential throttle and brakes, which were connected to the pilot's pedals. Taxying was easy and the view excellent, though the absence of



Above: G-AHDM was fitted experimentally with a very high aspect ratio wing of 75ft span designed by Hurel-Dubois of Villacoublay in France

Below: the prototype G-AGOZ flew with a mock-up of an engine nacelle for the Armstrong-Siddeley Mamba propeller turbine



At a sensible height I tried two of the things that one should try with an unfamiliar twin. Chopping an engine from normal cruise at about 110mph produced a more noticeable yaw than might be expected, but it was easily corrected and well controllable. I tried critical speed checks at this and full power settings, but I cannot remember the break-away figures; however, on the full throttle/engine out

check I remember clearly the high nose attitude or, to be more precise, the absence of a fixed datum ahead to use as a guideline, which created the feeling of hanging in the air. In this unloaded condition the Aerovan climbed at about 150ft/p/m at 80mph IAS with the port engine 'out', but clearly when loaded to the gills it would be much more miserable in asymmetric performance.



much structure in the front of the cockpit was a mild discomfort to an imaginative mind.

The Aerovan was empty when I flew it and, with a small raption of the Miles-type electrically-actuated flap for take-off, it was airborne long before I was ready. I cannot remember consciously correcting a swing tendency, so it must have been virtually absent, but I can recollect the machine's marked willingness at such light load to clear the ground quickly and climb quite smartly. At commercial working weight it must have been very different, but in this condition it clocked more than 800 ft a minute in an attitude and with a view that made it feel like a sky-lift rather than a flying aeroplane. The noise, however, which was quite aggressive, left no doubt about the truth.



Top: the cockpit was light and roomy
Above: the Aerovan Mk IV had four circular cabin windows



I remember the stall most clearly by the amount of vibration that originated at the back of the machine, presumably through flexing of the tailboom, which made the three fins and rudders engage in a little war dance. With the throttles closed, the bulbous fuselage and the various trimmings made the surrounding airflow quite audible and even with moderate power on, a gentle descent produced a marked whistle within. For normal and even mildly ambitious manoeuvres the empty Aerovan was pleasantly light and lively. The landing was straightforward and the nosewheel could be held-off to provide very effective aerodynamic braking, which surely is preferable to the modern nosewheel on/brakes on tendency.

Here was a type that could offer a remarkable range of uses. My brief and very limited assessment, however, concerns it solely as a pilot's flying machine and it is one of my many weaknesses to view aeroplanes in this way. First and foremost I like to think that any type should be pleasant, but not necessarily easy, for the person in the front. Commercial considerations, I realise, must call for an entirely different yardstick, but if a pilot is flying for pleasure (s)he should be able to derive some and, if flying professionally, (s)he needs to sit there for a long time. Either way, therefore, an aeroplane should be designed and built

with the pilot's needs and wishes in mind; these seem to be entirely absent from some machines produced 'by the yard'.

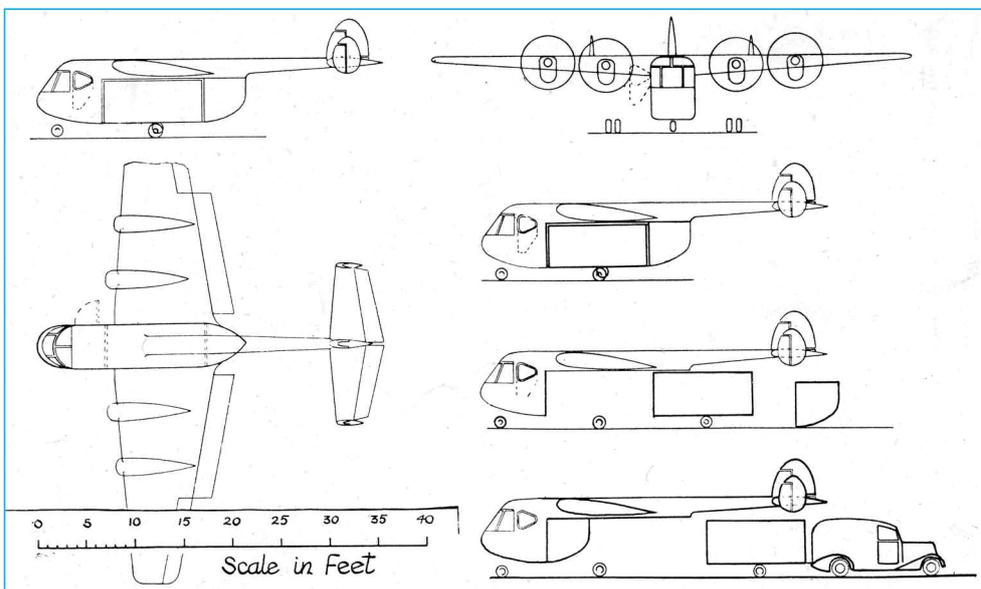
Unfortunately, although pleasant to fly, the Aerovan was not a great commercial success and its life was short. Relatively few survived to earn honourable retirement and although the fates of some (especially those sold abroad) are not known, at least six were destroyed by strong winds, six came to grief following engine failures in flight and no fewer than 17 were written-off in a variety of other situations, including two on take-off. The bulky fuselage pod with a capacity of 530 cubic feet could easily be – and apparently frequently was – overloaded and almost certainly many of the casualties were due to some operators' commercial greed. No example seems to have survived later than 1960 and the type has been forgotten by most people.

Although not in the top ten on the bread-winning front, the Aerovan served other

purposes. One specimen, appropriately registered G-AHDM (a rare case of a re-used registration, for this had previously been allocated to a Halifax) was fitted experimentally with a very high aspect ratio wing of 75ft span designed by Hurel-Dubois of Villacoublay in France. The prototype G-AGOZ flew with a mock-up of an engine nacelle for the Armstrong-Siddeley Mamba propeller turbine; others were tried with 145hp Gipsy Major 10 and 195hp Lycoming O-435 engines and the basic idea heralded several developments.

The first of these was the M.68 Boxcar, an airborne precursor of the British Rail Freightliner. A pre-packed container would fit between the pilot's cabin and the tail fairing and the machine could be flown home empty with the container removed. As this prototype had four (Cirrus Minor) engines it looked larger than the Aerovan, but in practice it used the same wing of 50ft span. A four-engined Aerovan was

Right: the M.71 Merchantman
Below: a diagram from the M.68 Boxcar brochure depicting the unloading of a container. The bottom three photos show the process in reverse



projected on the basis that an engine failure would be less critical than on a twin, but construction of this was not completed. However, one considerably enlarged beast did fly as the M.71 Merchantman, with four 250hp Gipsy Queen 30s and a loaded weight of 14,000lbs. This appeared promising, but before the second prototype was completed, Miles Aircraft Ltd had passed through the hands of the Official Receiver and the firm ceased to trade.

Miles designs had been many and varied; some were ingenious. Among these was the M52 – the planned prototype of a small supersonic fighter – but Government lethargy brought this to a halt. It is interesting to wonder what else might have materialised had fate been less harsh to the Miles family and their loyal supporters. ■

