

A View from Here

Avro 625 Avian Monoplane

By Jim Newman

Among modelers there is an affliction known as "kit bashing". Those affected with this malady have an uncontrollable urge to convert a perfectly satisfactory model kit into something which the designers never intended, sometimes with surprisingly good results. The same urges are not unknown among the producers of full-size aircraft, using the components of one design with parts of another one or two—even more—to produce a totally new aircraft. As mentioned in a previous column, Cessna did it to produce the outstanding L-19 *Bird Dog*.

However, kit bashing is far from a modern day tendency and the result of such an exercise appeared in Britain's 1930 King's Cup air race, in which two low-wing, wire-braced, single seat monoplanes were entered. With brilliant inspiration the type was named the Avian Monoplane, and we shall see just why the inspiration was brilliant!

The machine stemmed directly from the Avro two-holer biplane known as the Type 616 Avian IVM ... the M signifying metal tube fuselage construction. These elegant, all-fabric covered biplanes were fitted with various engines ranging from the upright 4-cylinder 90 h.p. A.D.C. Cirrus III, the inverted four-cylinder D.H. Gipsy III of 120 h.p., and the delightful little radial Armstrong Siddeley Genet Major I of 135 h.p. Incidentally, the writer discovered that a full set of manufacturing drawings for the IVM are available from the Smithsonian, since the type was registered with the CAA in the USA and produced by the Whittlesey Body

Company. In passing, a set of those drawings made from microfilm will set you back about a thousand bucks.

The Avro company (the name being derived from the founder/designer, Alliott Verdon Roe) is probably well known to those with a leaning towards full-size aviation. It was the manufacturer of the famed Avro 504 trainer, a replica of which may be seen at Old Rhinebeck Aerodrome, NY weekend airshows, May through October (www.olldrhonebeck.org) and was also the builder of the famed WW2 *Lancaster* bomber.

The company sought to produce a relatively inexpensive racing machine, so they faired over one of the cockpits of a Sports Avian IVM fuselage, then built and fitted a thin, fabric covered, low wing which they braced to the fuselage and landing gear with steamlined *Rafwires* (tie rods). The first of the Avian Monoplanes was given the registration letters G-AAYV and painted overall dark red (probably crimson, which was a popular color of that era) with white lettering. That aircraft was powered initially with an uncowed Genet 5-cylinder radial. Following the first flights a narrow Townsend ring cowl was fitted to improve the cooling and the airflow.

A second Avian Monoplane was assembled but this time powered by an upright 4-cylinder Cirrus Hermes I engine. The landing gear was slightly different in that the N arrangement of struts was left exposed, instead of being faired in with a wide "trouser" as on 'YV. This second machine was painted lime green overall with white lettering G-AAYW. These slender aircraft were, in the

author's humble opinion, very attractive and reasonably fast since the Hermes engined version averaged almost 120 mph for the race.

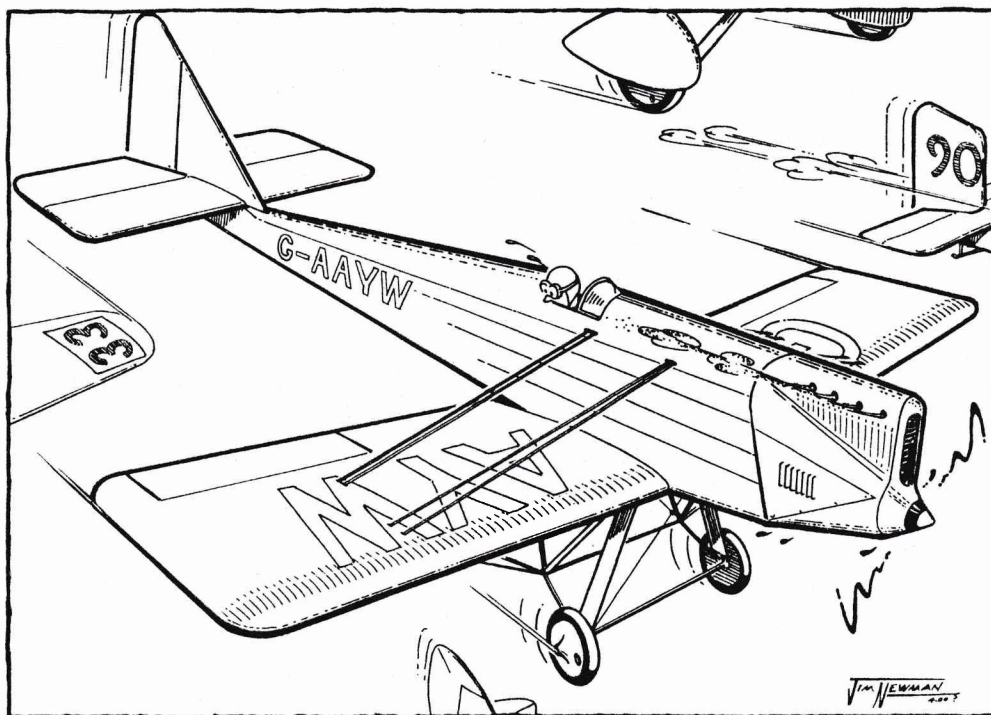
With just a single seat the Avians were good for one thing only ... racing. Had they been equipped with a second cockpit and a modicum of room for toothbrush and loincloth they might at least have been marketable as, "A Gentleman's Racing and Touring Aeroplane". Obviously that was not Avro's intention because, as far as the author knows, the two machines were never entered in another race. The Genet radial version was rebuilt as a standard Avian biplane, while the Hermes machine 'YV was bought by one of the legendary RAF Atchereley twins, Sqdn. Ldr. Richard Atchereley.

The Model 625 Avian Monoplane has not gone unnoticed on the east side of the Atlantic and has, surprisingly, been modeled as a freeflight subject as well as the inevitable R/C version. Both versions of the aircraft feature remarkably long noses, so a rubber version could be handily built without too much concern over where the c.g. would end up. We can also throw away our cares about areas ... this aircraft has an extraordinarily large stabilizer, too. Could it be that Roe's background as a successful modeler had anything to do with it?

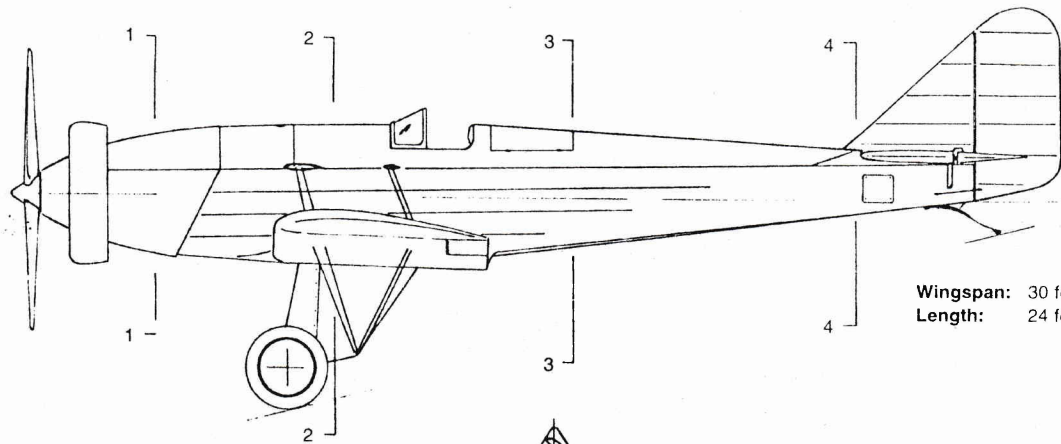
The lines of the Avian Monoplane could not be simpler. Just a basic box fuselage with some stringers on the sides and a stringered turtle deck. Depending on which version the modeler selects he could use some Williams cylinders or a lithoplate wrapped cowl. For the avid kit basher there are some useful kits that can be used as the basis for a sport scale version. Take a serious look at the original Goldberg *Tiger* (in which your scribe had a small hand) which has a slender basic box fuselage and rectangular wing. Of course, it needs to be converted to a tail-dragger landing gear.

Another kit which is worthy of consideration would be any of the *Stiks* on which the fuselage can be inverted. If you want a large scale model, why not take one of Hobby Lobby's *Telemasters* and put the wing on the bottom? If the reader is adept with a pencil and rule the straight lines would make it simple enough to "roll your own".

The Avian Monoplane cries out to be modeled and would be a pleasant change from the Farman *Moustique*, while the lime green would be a nice alternative to Circus Circus pink also! The simple styling will be a wonderful introduction to the scale world no matter which discipline the modeler leans towards; F/F, R/C, U/C ... even a solid model for the desk!



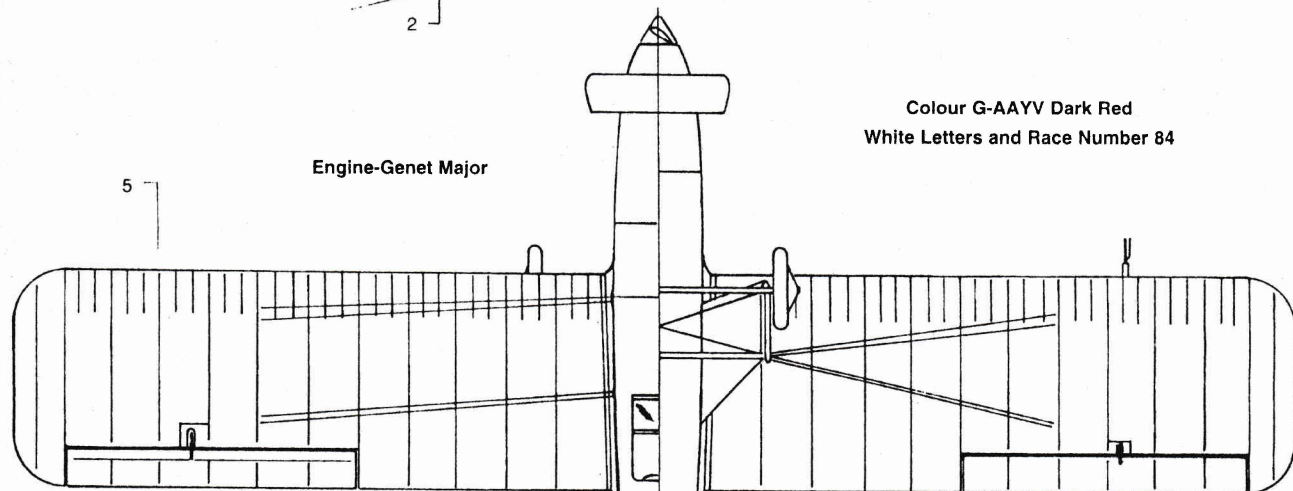
RL, 898-A



Wingspan: 30 feet, 0 inches
Length: 24 feet, 3 inches

Engine-Genet Major

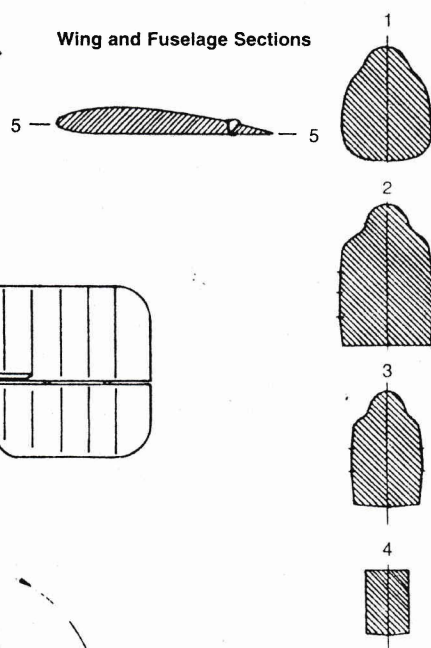
Colour G-AAYV Dark Red
White Letters and Race Number 84



AVRO 625 AVIAN MONOPLANE

Drawn by Phillip S. Kent 2/19/96

Wing and Fuselage Sections



For further information see Nexus plan 3068
Avro Avian (Cirrus Hermes) by Dennis Bryant

