

and its maneuverability would give it a fair chance against any which trapped it into a fight. The Ansaldo was apparently a very reliable machine, its six cylinder SPA-6A engine hauling it on many a long range mission over the Adriatic Sea and over enemy territory.

The Ansaldo served in the Italian Air Force until the 1930's finishing up in the training schools. The Ansaldo also served in the Peruvian, Argentine and Latvian Air Forces and a few found their way into this country as well.

My buddy, Earl L'Homme, was looking for something to enter in an upcoming WWI meet. From all the scuttlebut around it seemed like everyone was planning a SE-5 or a Fokker D-7. Both are excellent choices for models, but why pick out the same thing that everyone else would be entering? The trick was to choose a prototype which would be sufficiently "different" from the crowd to catch the judge's eye and still not be a "freak."

C.G. location and balance was another problem. Most WWI air-

planes have such short noses that it is very difficult to balance them properly without having to virtually fill the cowling with lead. Because of this, short nosed airplanes like the Sopwith "Camel" and the Fokker D-8 were rejected. There really wasn't much left to choose from and when we studied the vertical radiator design of the S.V.A. it seemed like a natural place to bury the engine. And so the choice was made! We would try a model of the Ansaldo S.V.A.-5. Our model is made to 1½=1'0" scale which produces a 45 inch wingspan. The cowling line is just perfect for a Merco .61 at this scale except that at the very front the radiator must be widened out a bit to clear the cylinder. This is not too objectionable especially since the widened nose shape lets you completely bury the engine.

We realize that a .61 sized engine is a bit larger than you expect to see in a model this small, but consider the situation: (1) Bi-planes, especially WWI bi-planes are quite draggy, so top

# Ansaldo SVA-5

The Italian Ansaldo, first flown in 1917, was designed as a light scout bomber and reconnaissance aircraft. Its speed kept it away from most interceptors, while its maneuverability gave it an even chance in a dogfight. This .60 powered scale model faithfully follows the prototype — in both appearance and performance.

BY GUS MORFIS

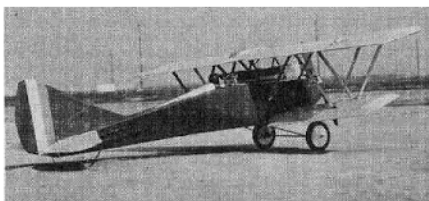
We are all familiar with the "best" pursuits planes of WWI . . . the "Camel," "The S.E.5," "The Fokker D-7," and the "SPAD 13." But nobody remembers the Ansaldo S.V.A.-5. The Italian Ansaldo was certainly no "Second best" performer and if its theater of operations had been as well publicized as the Western Front was, the Italian Scout would be better known today.

First flown in March, 1917, the Ansaldo was designed with speed and range as its prominent features. Its maximum speed was 143 M.P.H.; time to climb to 13,500 feet was 10 minutes, and non-stop flights of 900 miles distance were flown in proving out its range capabilities — no "second best" performance, especially in 1917!

The airplane was developed as a light scout bomber and reconnaissance aircraft, duties which would take advantage of its unique performance capability. Its speed would keep it away from most interceptors

The Ansaldo is a fairly simple model to construct for the RC'er with building experience. It is not recommended for the beginner in either the construction or flying departments. In the air it is fast, highly maneuverable, and capable of full-scale performance with powerful .60 packed away in the nose.





speed won't be too bad. (2) We were going to require nose ballast anyway — so why not get some work out of the ballast? (3) Just because the power is there, we don't have to fly full bore all the time, do we? (4) We could take advantage of the engine and put a large diameter, flat pitch prop on our model which would look more to scale. And, (5) we had a Merco .61! The combination worked out well.

What is most important, however, is that this model has been the most amazing flyer we have seen in a long time. Control response is instantaneous, both going in and coming out of a maneuver. At full throttle this Ansaldo will go faster than you think and will hold its own in an impromptu pylon race. It might give a little on the straightaway, but boy does it make it up in the turns! The ailerons are extremely powerful and this model rolls fast, tight, and true. Spins are a true delight, very fast and the pullout is very clean. There is enough power to make a large circular loop if you want to, or you can really haul it over on its back in a combat situation. In addition, we have noticed no ground loop tendencies, quite unusual in a WWI type model.

I definitely feel that the Ansaldo SVA-5 will delight you with its flight characteristics and will put you into the WWI flying scale picture with a vengeance.

The Ansaldo is well written up in the Profile Publications No. 61 and I strongly urge getting this particular Profile if you plan to model the Ansaldo. If your local store doesn't carry the Profiles, I suggest you try Gordon Madison

at Hobby House Plans Service, 16291 Normandy Lane, Huntington Beach, California 92647. Send him 50¢ for each one you want. The Profile is a vital documentation tool when you present your model to the judges. In addition, the Profile has a number of photos which will be of considerable help to you in detailing your model.

The Profile shows that the Ansaldo also served as a two-seater with a gunner in the aft cockpit. The model could be easily modified to this configuration. I don't think the model's flying characteristics would be damaged by this change and the resulting model would certainly stand out on the flight line. It would also look nice in the air with two heads sticking out.

### CONSTRUCTION

The Ansaldo is certainly not suggested for the beginning modeller. The construction is different but not really difficult. However, there is no point in trying anything more complex than you need to at the start of your modelling career. As a general comment, I would point out that lightness is always important in any airplane and that **weight is not necessarily strength**. This model is no different. As you build remember that an extra ounce in the tail requires about four (yes, four!) ounces in the nose to balance it out. "Nuff said!"

### FUSELAGE

Plan out your work before you begin. Draw the outlines of your radio gear on the plans so you can be sure just where everything has to go. The forward half of the fuselage being square in cross section is pretty straightforward construction. At the cockpit the fuselage sections change to triangular. This means you are going to have to pinch your sheet sides together at the bottom and hold them true while everything is setting up. Make sure your longerons are trimmed to the proper chamfer angle so your tapered sides makes a good faired fit. A bunch of spring clothespins

will work well to hold the bottom seam while the glue sets up.

Locate your fuel tank immediately aft of your engine as high as you can put it without causing yourself fuel flow problems. The servo, receiver and batteries should be as far forward as possible which will put them right under the fuel tank, because of this it might be wise to seal off the fuel tank with a piece of sheet stock to keep any fuel leakage away from your radio gear.

You can finish the "turtle-deck" forward of the cockpit now. Make sure you are completely satisfied with your fuel tank installation before you close up the area. It's tough to get at the tank after you close up! Remember that some of the cabane struts come out of the "top" of the fuselage and meet at the center of the top wing. The other half of your cabane struts start half way up the side of the fuselage and meet the inboard canted wing struts at the top wing. Remember to reinforce the areas where the struts tie in. Don't try to understand it all from my written description, your best best is to study the photographs in the Profile.

### WING:

The wing panels are quite simple. Just make sure you cut enough ribs! We took advantage of the fuel tank on the top wing panel and hid the aileron servo inside. We had to cheat a bit on the size of the "tank" to hide the servo but the finished job doesn't look all that bad. You lucky guys with the new tiny servos will have it made.

The bottom wing is essentially similar to the top wing, except that it has the dihedral and the center section of it is planked. We put the "hard" spars on top of the bottom wing and on the bottom of the top wing in order to give the interplane struts something rugged to bear against. Put webs between the spars to build up the beam strength, but none at all are needed outboard of the interplane strut mounting

pads. Fill in between the upper and lower spar caps with wood and bury a blind nut in there for the wing struts to attach to. Now your wing panels should be ready for covering.

#### **EMPENNAGE:**

There isn't anything special about the tail. Our model used solid balsa, but if you can build up structure it will probably look a lot better. If in doubt, use whichever system produces the lightest job.

Remember our previous comment: an ounce of extra weight in the tail will take about four ounces in the nose to balance it out. This increases your models weight and takes away from its performance.

#### **RIGGING:**

Rigging the Ansaldo is a bit different than most other biplanes because of the Warren truss bracing. The Warren Truss makes up into a very rugged assembly and one which holds its geometry true for a long time.

The first step is to install the top wing, attaching it to the fuselage at the center. Make sure that the top wing is set at zero incidence by measuring from the trailing edge down to the fuselage deck and from the leading edge down, too. Both dimensions should be the same.

Attach the bottom wing next, using rubber bands, or better yet use nylon screws. The incidence on the bottom wing is set automatically in the fuselage when you install the wing.

Jig up the wings with scrap balsa or whatever will do the job for you. Make sure that the top wing is horizontal and that the bottom wing is set on symmetrically. The remaining struts can be installed now, starting from the center section and working outboard to the wing tips. The struts can have some adjustment built into them which you can

lock in at this time.

It's far easier building some adjustment into the struts than trying to measure their true length. You might consider the possibility of making two sets of wing struts, the first just for adjusting to size and the second scale set built to those dimensions.

#### **DETAILS:**

The wheels shown on our plans are close to the correct size. Our model has wheels a bit too large but it doesn't look too bad. I like to think the bigger wheels help on the take-off from rough ground.

#### **PAINTING:**

Color details are all in the Profile Publication we mentioned earlier. Apparently the Italian front did not have a standardized color scheme, not even a standardized insignia. You would probably be safe with an olive drab or brown fuselage with grey or black engine panels. The radiator shell should be copper colored. Wing panels and empennage can be buff colored to represent clear doped linen. Wing roundels can either be red-white-green, although green-white-red is not unknown.

#### **BALANCE:**

Make sure your model balances where shown or forward of this point, under no circumstances should your model balance aft of this point. There is a space just under the engine that could be used to pour Cerrobend or Epoxy coated lead shot. Remember what I said earlier about building the tail lightly? This is where you will pay for your sins!

One personal point, please: Put a pilot in your airplane. Nothing looks so "off" than to see a scale model of a real plane without anybody at the controls. The realism of any scale model is greatly enhanced with a pilot.

The Ansaldo will give you a great deal of satisfaction, it looks and flies well. Here's hoping you knock off some trophies with yours! □

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