

Vern Zundel's

# "Blackburn All-Steel"

*Semi-Scale antique...it creaks!*



**An old, old bird, but it flies just fine.  
Try your hand with an antique type . . .**



**It flies! It toots all over the sky, if you're not in a hurry. Quite a sight.**

A last touch to the rigging. Old birds contrast with the new on the flying field, point out the passage of years. This was modern once.

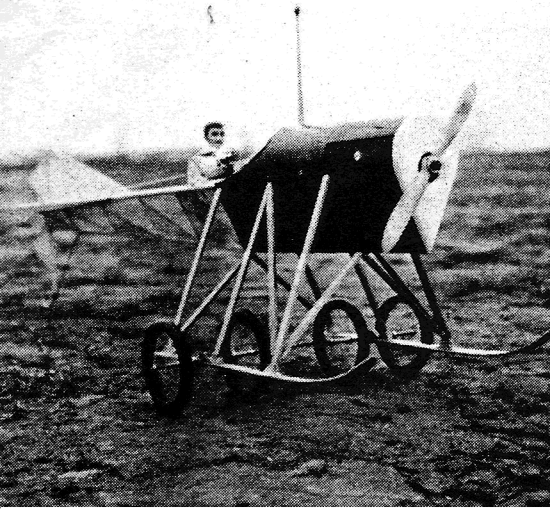
◆ There is very little known about this aircraft except that it was used as a military and civilian trainer. The civilian version used a radial engine while the military version was believed to have used an in-line engine. The aircraft was built, I believe, in England around 1915 and was called the "Blackburn All Steel."

This model was built primarily for those who are seeking new thrills in R/C flying. There has been an increasing number of modelers going towards the old, the bi-wingers, WWI, and the monoplanes of the early 1900's, so here we endeavor to supply modelers with another of those "Magnificent Machines."

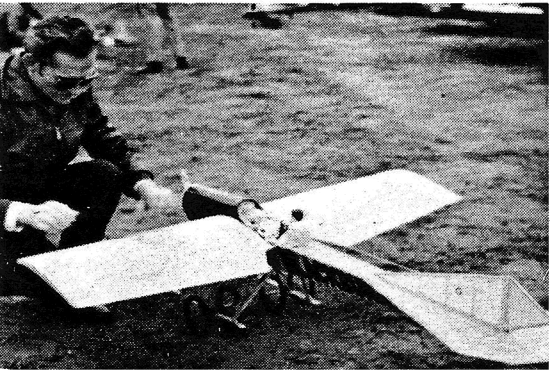
We were at first skeptical about its design and bill of materials, but decided to go ahead and try our hand at a real "Old Timer." As for test flying, I contacted Al Signorino who flies "Dog Houses," knowing that if he can fly Snoopy (WWI vintage) he could fly anything. He heartily agreed to try his hand at it, so we were all set for construction of the Blackburn "All Steel." I obtained a 3-view drawing from W. C.

# Blackburn All-Steel

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Just be thankful it didn't have a retractable landing gear. Four wheels, skids and struts to shore it up.



Semi-Scale, nostalgic crate.

Hannon Graphics in Escondido, California and started drawing blue prints for our first, (I hope of many) Old Timer. We had to alter some of the design details and deviate somewhat from 100% true scale, but we kept in mind the desire to stay as close to scale as possible. We shortened the tailskid, moved the landing gear forward on the runners (or skids) about 2-1/2 inches, and lowered the upright support by about 3 inches. The finished drawings were appealing, so we started construction. We chose spruce for the bottom of the fuselage to strengthen the framework and also used spruce for the crosspieces to assure against twisting of the rear fuselage. The aircraft has the same building characteristics as the old stick and tissue method! That's right fellows, we used to cover them with tissue, remember? (I even used newspaper). Getting back from reminiscing about the old days. . . . We used sheeting in the forward section to assure tight structure for the R/C gear. Plan your access hatches before completing this area (right AI?) as your space is limited if you are going to use large proportional gear! We tried to keep the aircraft design in this area open for all types of radio equipment and kept in mind that there is a large number of systems available. Al Signorino, who flew all the test flights on this "Machine" used his PCS radio equipment.

Anyone can build this aircraft if they

keep in mind it's not free-flight and needs tight stress points. For R/C use a good grade of glue such as Tite-Bond and use resin in the engine compartment and fuel cell areas. A little caution and a lot of patience is a must, as you will find later when constructing wheels, wheels, wheels, etc. I must stress the point of good tight construction or you will be performing open structure surgery later.

This is not a backyard flyer and requires a fairly calm day. As it is very light it will glide like a glider or sailplane. We encountered no difficulty in balancing this machine with its R/C installation, but this depends entirely on the builder, finish, R/C gear, etc. so keep in mind what type of equipment you are going to use later. We found it to balance out at 40% of the wing chord at the wing tip, which is about 33% of the mean chord. The blue prints are self explanatory and I know from experience no one likes "hook A to B and join at C"; however a few notes should be observed about construction.

The fuselage should be built in an upside down position on a flat surface; this will assure a positive flat side to the top of the fuselage. Rigging points on the wings are constructed of 1/4 inch dia. dowel and drilled with a #60 drill to feed the flying wires (thread) through. Remember to cement the wires when properly positioned

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