



R.C.M.&E KIT REVIEW

VERON

IMPALA



BY BUTTON MAN

I DOUBT whether Phil Smith, Veron chief designer, has ever designed an ugly model or, in fact, that he is capable of doing so. It is one thing to design an attractive model and another to also make it practical in construction, with good flying characteristics and suitable for a wide commercial market. With the Veron 'Impala' slope soarer I believe he has achieved all these desirable features. Although it has slabsided fuselage and parallel chord wing and tailplane the overall lines are very pleasing. The size of 52 ins. wing span is ideal for the newcomer to the sport of slope soaring but will also appeal to those already converted who require a model between large multi size and the lightweights. It should in fact be suitable for flying in most weather conditions and the fuselage is large enough to accommodate any radio equipment from single channel through to feedback proportional.

Contents of the kit are very complete. The die cutting of the balsa wood and plywood is particularly clean and the grade of balsa wood generally is about right and well matched. Our only real complaint concerns the sheet fuselage sides. These have a 45 deg. splice joint which is neatly cut and easy to glue but the sides are cut approximately $\frac{1}{8}$ - $\frac{3}{32}$ in. oversize all round. I found it most difficult to mark and trim them accurately to the correct outline, the only way was to position the side under the plan and 'pin' through to the required outline.

Cutting away a small area of balsa is more difficult than cutting out of a large sheet and, as the sides are not cut accurately to shape, it would have been preferable to leave the sheets uncut in a standard 4 ins. width. Apart from this one 'niggle' it was difficult to fault the kit, the plan, sketches and instructions are clear and cover all aspects of construction and flying comprehensively.

The initial intention was to equip the "Impala" with the **Webra Picco** magnetic pulse proportional outfit distributed by Veron. Following a few bench tests, however, I was in some doubt that the magnetic actuator would have sufficient torque to operate the large rudder without risk of complete 'blow-back' in flight. All magnetic actuators have limited output power and I feel the Webra Picco actuators are more suited to smaller models. It may be possible to achieve successful results in the "Impala" if a balanced rudder were used but control would, I feel, still be minimal. In the event it was decided to install Galloping Ghost equipment with its added advantage of elevator control. The only modification I made to the construction was to use a $\frac{1}{8}$ in. x $\frac{1}{8}$ in. very hard centre longeron on the fuselage in place of the $\frac{1}{8}$ in. sq. specified to allow for the installation of a standard G-G board unit. Also, because of limited opportunities to travel to a slope soaring site. I have devised a pylon mount for a Cox .049 QZ engine for fun flying at the local field (more of this when it has been tested). Construction of the model was quite straightforward with a minimum of 'tricky' parts and could be undertaken by any modeller with a minimum of experience. Take care when fitting the shaped leading edge to the wings, making sure that the bottom lines through with the wing ribs so that any trimming down of the leading edge is done on the top, sheeted, surface. Care is also needed in joining the two wing panels together making sure they are not twisted and that all spars and leading and trailing edges are cut accurately to the dihedral angle. The model was finished with **MonoKote**, the open areas first being covered with tissue to prevent the MonoKote from slackening off



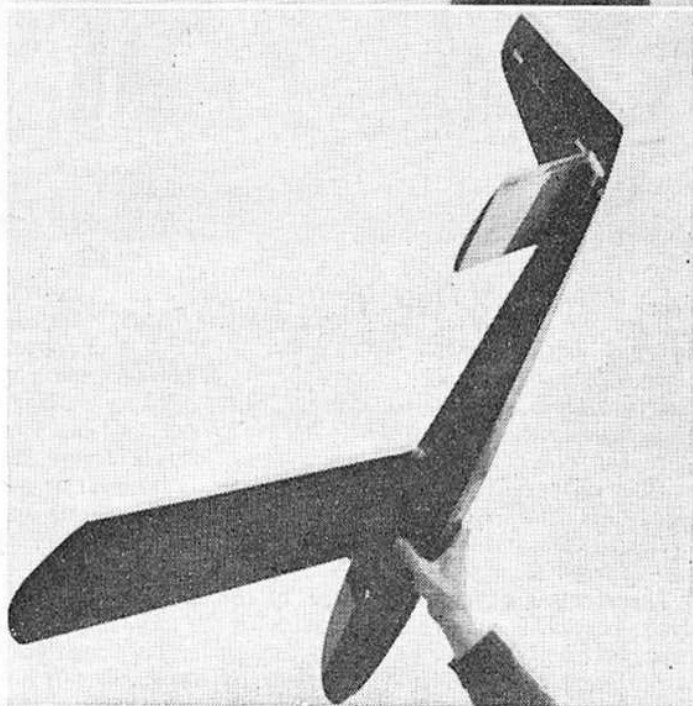
Left: layout of components in the Veron Impala kit. Fuselage sides are in two pieces. Leading and trailing edges all notched to accept wing ribs. Simple airframe structure makes this an ideal beginners model which can be put together very quickly.

too much. Although the MonoKote has proved satisfactory on the sheeted surfaces it is not sufficiently puncture proof on the wings and tailplane if you are flying at a site covered with gorse and thorn bushes. I would strongly recommend that nylon is used for these conditions. All up weight of the Impala (the radio gear weighing approximately 8 ozs.) came out at 33 ozs. and this included an ounce or two of lead in the nose.

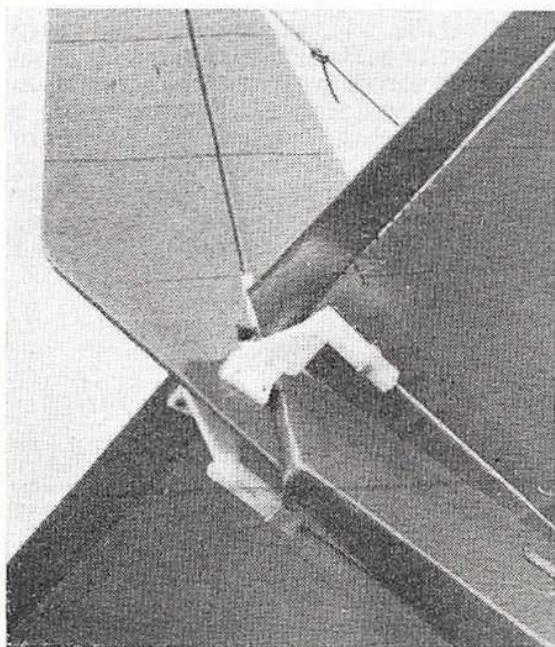
Initial flight tests were pre-arranged with the Editor for a Wednesday afternoon at Ivinghoe. As it happened this coincided with a period of two weeks flat calm so the value of these test flights were strictly limited but I think we both finished up a pound or two lighter through climbing up and down the slope. In the field opposite the farmer was burning off the corn stubble and we thought there might have been some thermal assistance generated from the heat; when the model disappeared from sight in the thick smoke, however, we decided it might be more prudent to wait for better conditions!

The second trip to the Beacon showed little improvement in the wind conditions with a maximum breeze of 7 m.p.h.; there was also some thermal activity about, sufficient to keep the lightweight soarers aloft, but the Impala is essentially a slope soarer. I managed one flight with four or five passes but had to concede to the elements, or lack of them, once again.

With one day left before the deadline for getting the copy of this article to the *R.C.M.&E.* offices, what do you know?—the wind blows! Sure enough the wind was strong enough, the only trouble being that it was blowing from the North East and habitués of the Beacon will know that this is far from ideal. However, with the twelve to fifteen knot wind available the model was launched with more confidence than on the previous occasions. The Impala lifted away nicely but it was soon obvious that the air was fairly turbulent and quick corrections of rudder and elevator were necessary. Once we had the "feel" of the model we realised how well it was riding these disturbances and the transmitter was being handed to and fro. The half a dozen flights achieved at this outing were sufficient to enthuse us not only of this form of flying but also of the merits of the "Impala". Combining, as it does, rugged construction and fine flying qualities it will, I am sure, introduce many newcomers to slope soaring.



This relatively short period of flying also convinced me of the suitability of Galloping Ghost installations for slope soarers, the availability of elevator control, and its trim function, is very desirable. This is particularly true when flying from a ridge without a flat landing area downwind, the lack of effective elevator control in these conditions can be embarrassing.



Top: our test Impala in action at Ivinghoe Beacon soaring site. Model proved ideal for Galloping Ghost rudder and elevator control. Above: rear $\frac{1}{2}$ view of Impala, displaying simple yet graceful lines. Left: close-up of the tail cone showing rudder and elevator linkages. Rand hinges used on rudder. MicroMold horns and clevises. Below: radio installation showing Rand LR-3 actuator and Fleet superregen receiver on installation plate.

