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VINTAGE STYLE KIT BUILD

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CLOUD WALKER

Peter Miller takes a break from his drawing board and builds a Value Planes old timer kit

words & photos >> Peter Miller

I recently sold my Super Scorpion, which I used as a camera plane for my Mobius camera, so I was feeling the need for some simple building, but which did not need masses of cutting out of parts. I chose the Value Planes Cloud Walker from 4-Max Models, where I

always go for advice and electric power items.

This kit is made in China and it comes in a narrow box which opens at the end. I modified this for top opening and I suggest that you do the same as it allows one to go through the contents much more easily during building.



I shall be adding a bay to take my Mobius camera as it will make a perfect camera platform.



KIT CONTENTS

The kit is made up of 11 large sheets of laser cut balsa and ply. One of those sheets of balsa is 8 mm thick! The quality is superb; the balsa is light and smooth whilst the ply is excellent and hard with not a hint of delamination. The 6mm square strip is light and comparatively soft but as the fuselage is built up with ten of them it is more than strong enough and one does not want too much weight down that long rear fuselage. There is also a big bundle of 6 mm square balsa, plus a few extra sheets of balsa for wing sheeting; this is thicker than the normal 1/16" sheet.

Hardware consists of plastic tubes with piano wire inners, a pre-bent undercarriage, two large and light wheels, plus the usual small accessories. There are also some tiny magnets for holding down the cowl - more on that later.

The plan is large and clear, and there is a good set of photo instructions. Terminology is a little strange in places but as the meaning is clear, e.g., 'polish' instead of sanding, this is not a problem. There are no notes on the plan, just part numbers. These, combined with the photo instructions, make assembly very straight forward.

The Value Planes Cloud Walker was purchased from 4-Max Models, where I always go for advice and electric power items.

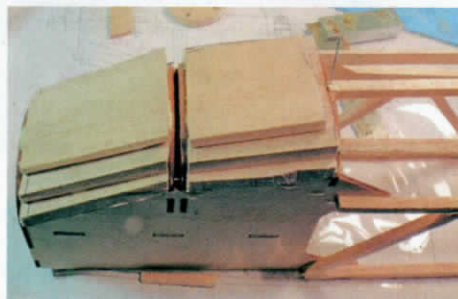


“The plan is large and clear, and there is a good set of photo instructions”

The laser cutting is the best that I have seen. Even on the 8mm balsa the cut is very small; on the 3mm balsa it is only .4mm thick and on the 3mm ply .15 mm - I checked them with feeler gauges. I was most impressed with the fact that the cuts are only light brown, even the 8mm ones, so no need for masses of sanding of charred black edges. At no stage did I need a knife to free the parts.

BUILDING THE FUSELAGE

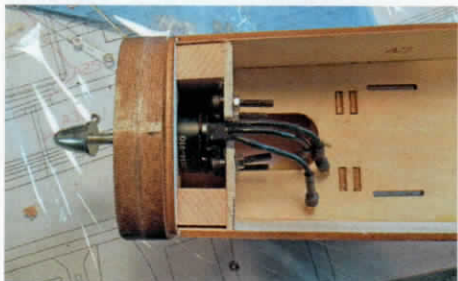
The fuselage is built in two parts. The basic frame is built with two sides made from 8mm wide strips which are assembled with formers and then more formers and stringers are added. There are pre-cut pieces which have two holes in them. These glue to the underside of the cross members and take the snake outers - a neat touch.



The nose is built up with 8mm sheet so lots of shaping is needed here.



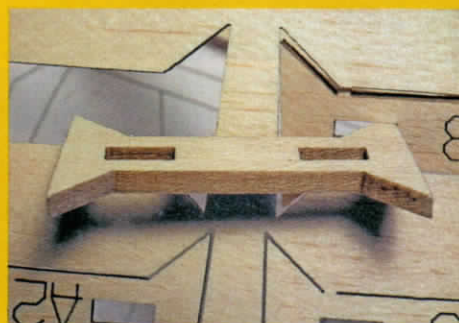
Battery access hatch base is the only incorrect part in the kit. On the right is my corrected version. There's plenty of spare ply to cut it from in the kit.



This is my modified motor mount. It's easy to make and provides good access so is better than the original design.



Laser cutting is superb and there's lots of spare material, which is useful.



An example of the clean laser cutting showing a fuselage cross member.

The cabin area is built on top of the fuselage. The whole assembly is strong and ensures accuracy.

Once the front section has been assembled it is joined to the fuselage and covered with 8mm balsa which must be carved and sanded to shape. A good razor plane and a heavy-duty sanding block will make this job much easier.

The side view of the plan shows mounting for an engine and the rolled sheet covering extends well forward. A second drawing shows an electric conversion, but I suspect that this was a bit of an afterthought. The scrap side view shows the fixed turtle deck is much shorter than the one on the main plan. This allows access for the battery.

The motor mount shown on the plans is not really suitable because the motor does not come through the front former and the thick nose sheets far enough.

The former and thick nose pieces intended for IC engines have holes that are just big enough to accept the recommended electric motor.

My modified motor mount is a simple piece of 1/8" ply which can be cut from the spare material from one of the laser cut sheets. It is drilled for the rear X mount supplied with the motor. It is also drilled to take two 3mm blind

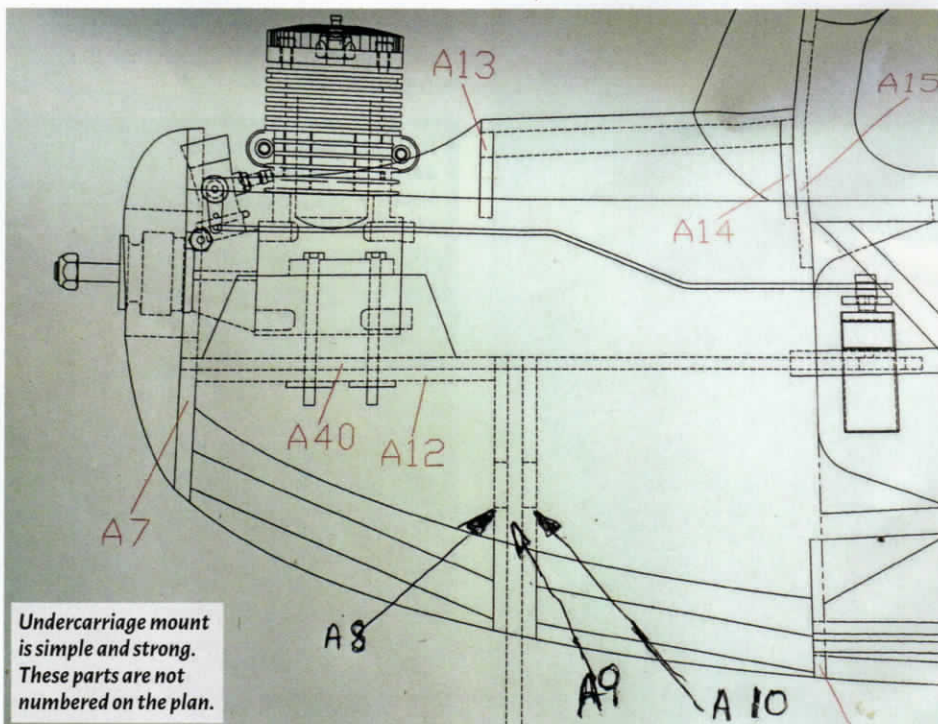
nuts. Two blocks of 3/4" wide wood are glued to the rear of the ply former. These can be softwood or beech engine bearer, or even end grain hard balsa. These are drilled to take 3mm cap head screws long enough to go through to the rear of the motor mount. The balsa front nose pieces should have the holes opened to allow clearance for the bolt heads. This set up allows for quick and easy removal of the motor if required.

As I said the IC version has a longer fixed turtle deck. The electric version has much bigger access for fitting the battery and it also has a removable hatch, but the part supplied for the base of the battery hatch is the wrong shape. My drawing shows the correct shape for the hatch base and front former. It is suggested that 5mm magnets are fitted in each corner and in the corners of the opening.

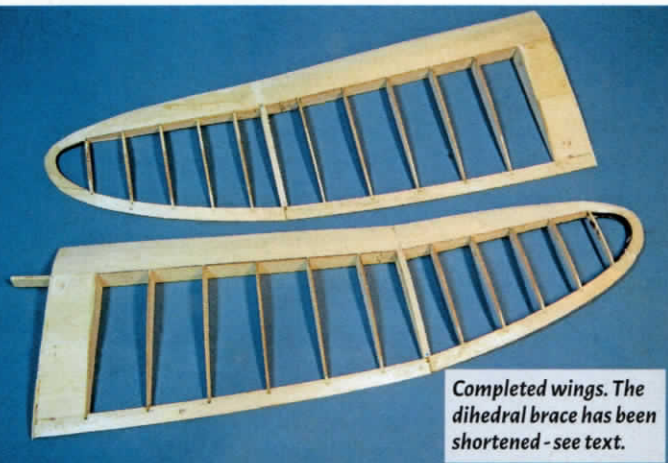
The undercarriage mount is extremely simple, strong and effective. If you pull the undercarriage out that will be the least of your problems!



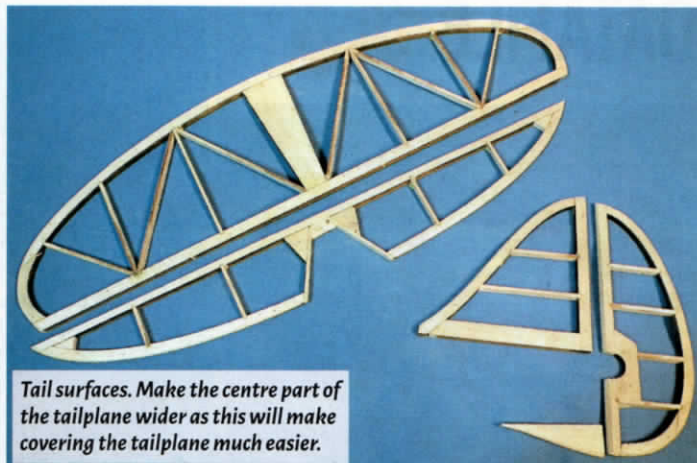
Scan this QR code to see Peter's drawing for the replacement parts mentioned in his review.



Undercarriage mount is simple and strong. These parts are not numbered on the plan.



Completed wings. The dihedral brace has been shortened - see text.



Tail surfaces. Make the centre part of the tailplane wider as this will make covering the tailplane much easier.

WINGS

The wings feature an extremely strong leading edge and light rear structure. The sequence for building them is a little unusual so study it carefully and then build the wing, taking care to get the alignment of the parts correct.

The leading edge sheet should be cut oversize and trimmed to an accurate fit. Unusually, the LE has to be glued on after the top and bottom leading edge sheet has been applied. Most models apply it after the LE is glued to the ribs. But don't worry, it does work, so stick to the method shown in the instruction manual.

Also, the leading edge is pre-cut from 8mm sheet. While this works on the inner panels it is too stiff to match the curve on the tips. I simply made the LE for the tips from three laminations of 3mm scrap balsa, of which there is plenty in the kit.

The wings are joined with a dihedral brace laminated from two pieces of 3mm ply. It is slid into a box formed by the slotted web, the two 6mm square spars and the front webs in front of the spars. A problem came because the second rib is not cut away to take the dihedral brace,

but I did not fancy trying to cut it away from down inside the wing. However, the wings are glued together and are very strong and, let's be honest, a vintage model is not going to be highly stressed in normal flight, especially when powered by a small electric motor. So I opted to simply shorten the dihedral brace and made sure that it was well glued in place.

Once completed the wings are very light.

TAIL

The tail is built from laser cut parts, which I had pinned down and glued in place in under an hour. When I lifted them from the board, I sanded them flat, radiused the leading edges, sanded a 'V' leading edge to the elevators and rudder (another half an hour) and soon had the tail assembly ready for covering and hinging.

There is a shaped piece for the under fin, which is meant to act as a tail skid. But as the rudder comes right down to the ground, I fitted a wire skid to that instead.

When I was covering the tailplane I realised the centre section was so narrow that it was causing difficulty as there was only a narrow piece visible on either side, so I added 1/2" wide

strips of 8mm sheet on each side. As there is plenty of spare 8mm sheet you could cut a new, wider part at the start which would be neater than my added-on parts. It certainly made covering a lot easier once I had done that.

COVERING

I used the covering film available from 4-Max Models. This seems almost identical to the old HobbyKing covering which I rated to be as good as the old Solarfilm Supershrink Polyester. In other words, the best covering films that I know.

The yellow is extremely easy to use and works perfectly. The backing film comes off easily. When shrinking overlapping joints you may find that as it shrinks it leaves a trace of white adhesive, just as HobbyKing film used to. A wipe with acetone cleans that off instantly.

The transparent red is just as good but removing the backing film is best done by sticking two bits of clear tape to it to peel the backing paper off. Also, avoid letting the adhesive side come into contact with itself as it is tacky and will stick. The red does not leave any white in the area of joins.

EQUIPMENT INSTALLATION

The cabin windows are quite thick and from rigid plastic so do not fit them until all the radio gear has been installed because the cabin top is rather narrow and getting down inside would be very fiddly with the windows fitted, to put it mildly.

‘Unusually, the LE has to be glued on after the sheeting has been applied’



Paul Walker was covered in the film available from 4-Max, which seems almost as good as the old Solarfilm Supershrink Polyester.



This is a simple three channel model, with wire pushrods to the rudder and elevator. Power can be electric or IC.

DATAFILE

Name:	Cloud Walker
Model type:	Old-timer style
Manufactured by:	Value Planes
Available from:	4-Max Models https://www.4-max.co.uk
RRP:	£99.99
Wingspan:	1650mm (65")
Length:	1240mm (48.8")
Weight:	1250g (2.75lbs)
Power system:	PO-2834-910 brushless motor, 30A ESC
Prop:	JXF 11" x 7"
Req'd to fly:	3-ch radio, 3S-2200mAh LiPo



In calm conditions it is more relaxing to use the throttle to gain or lose height.

Servos are mounted on a pre-cut ply plate. The plastic snake outers come through in the right spot because of the well-designed mounts previously mentioned. The piano wires have joggles on the outer ends to connect to the control horns and the inner ends connect to the servos with the small clamps provided. These are of good quality.

My only complaint is that if one needs to adjust the controls one has to remove the wing and fiddle around inside the cabin in a restricted area. I believe in easy access on the field so I cut the joggles off and soldered threaded adaptors on. This allows the use of normal clevises to be used at the horn ends.

The battery, a 2200mAh LiPo, sits on top of the original engine mounting plate along with the ESC and UBEC. Yes, there is room.

I found that I needed four ounces of lead in the nose. This brought the all-up-weight to 2lbs 12 ounces. Considering the large wing area, this is excellent.

“Here is a model that will provide some very relaxing flying”

FLYING

Considering how large the model was compared to other smaller vintage models that I have flown on electric power I did wonder just how the model would perform with the small but recommended motor turning a 11" x 7" wood propeller but I was surprised at the performance. I applied power and the model was off the ground in a couple of yards and climbing fast. It was not a steep climb, but the model had her nose up and was gaining height rapidly.

I had to throttle back a long way to maintain a constant height, and I had to virtually cut the throttle to start losing height. Then I realised that I had not had to adjust the trims at all. It just flew straight and level in a very gentle, wide turn. I could have trimmed for dead straight flight but that is not a good idea with what is essentially a free flight model.

The model is very sensitive to the controls. I found that setting the rudder at 1/2" each way was more than enough and for normal cruising around one merely needs to squeeze in a small touch of rudder.

The elevator is also sensitive and while I set it at 1/2" each way it was easier and more relaxing merely to use the throttle to gain or lose height.

SUMMARY

Here is a model that will provide some very relaxing flying and yet will provide a little adrenaline if one feels the need. I shall be adding a bay to take my Mobius camera as it will make a perfect camera platform.

If used for training I would say that a novice could get into trouble fairly quickly if they thrashed the controls around. However, if they take their thumbs off the sticks then the model will sort itself out instantly.

Finally, I will say that the flying shots were taken on a day with the wind gusting over 12 mph, which was a little too much for comfort. So best keep the Cloud Walker for calm weather flying. ✈



A final look at the vintage style Cloud Walker awaiting its next flight amongst the daisies.

You'll need to almost cut the motor to make it come down!

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www.4-max.co.uk/aircraft-vp-cloud-walker65.htm



Description	RRP
Value Planes Cloud Walker build it yourself kit	£99.99
PO-2834-910 Brushless Motor	£27.49
4M-HESC30A - 30A Brushless ESC	£20.99
JXF 11x7 High Performance Wooden Prop	£9.68
2pcs of 4M-175AMG-030 Servos	£16.46
3S, 11.1V, 60C, 2,200mAh LiPo Battery	£23.50
HW-UBEC5A	£14.99

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