



SCOUT



How to build and what it's like to fly, Jim Morley's add-on fuselage to convert a Hughes 300 into a Westland Scout

These shots show how realistic the model looks, although it's crying out for more scale detail to the engine, cockpit and external appendages. If it flies as well in four blade form as the Hughes did with its three blades, then it will make an ideal first multi-blade project.

We knew of the impending launch of Morley Helicopters new add-on fuselage kits for the Wasp/Scout and Lynx well before their debut at Sandown Park last year. It seemed a logical step to us, to use existing mechanics for different models in order to expand their range without going into the unnecessary costs of development of entirely new designs. Not only the manufacturer makes a saving here, so do the owners of existing Morley models, they can now spend a quarter of the cost (of a full kit) on a fuselage kit and create an entirely new helicopter for themselves.

When we saw the new models on display at Sandown we were delighted to see that Jim Morley had captured the character of the new subjects in

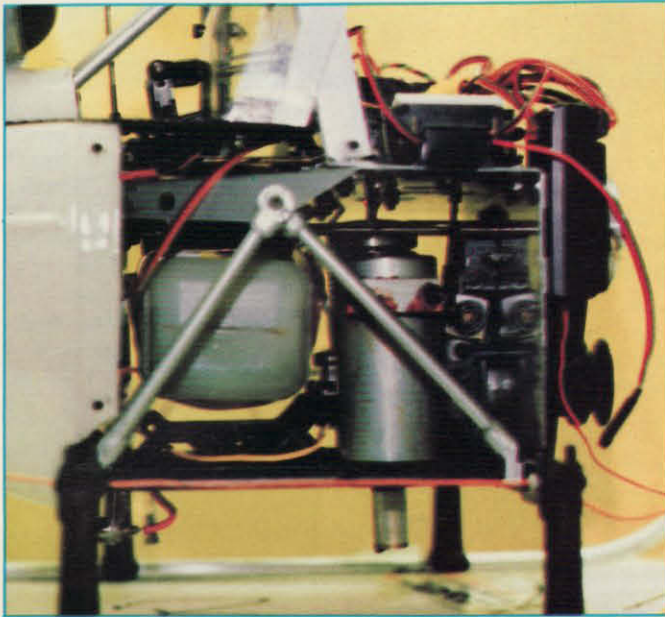
the same way that he has with previous models. On display were two versions of the Lynx — army and navy — and an example of the Scout. The Wasp

(which is a navalised Scout) was on display but only in partially developed form.

Not surprisingly, we immediately bent Jim's arm to



at *R* eview.



The silencer we used was Morley Helicopters own item which is specifically made for the Hughes/Scout. It's a good one and fits the bill exactly. The tank has been removed from the engine bearers and strapped to the gearbox — the Hoverpoint method. This cured the fuel foaming problems when the model was in Hughes 300 form. You can just see the rear quarter sections of the canopy are left in place when the front section is removed — it's even less clear in the instructions.

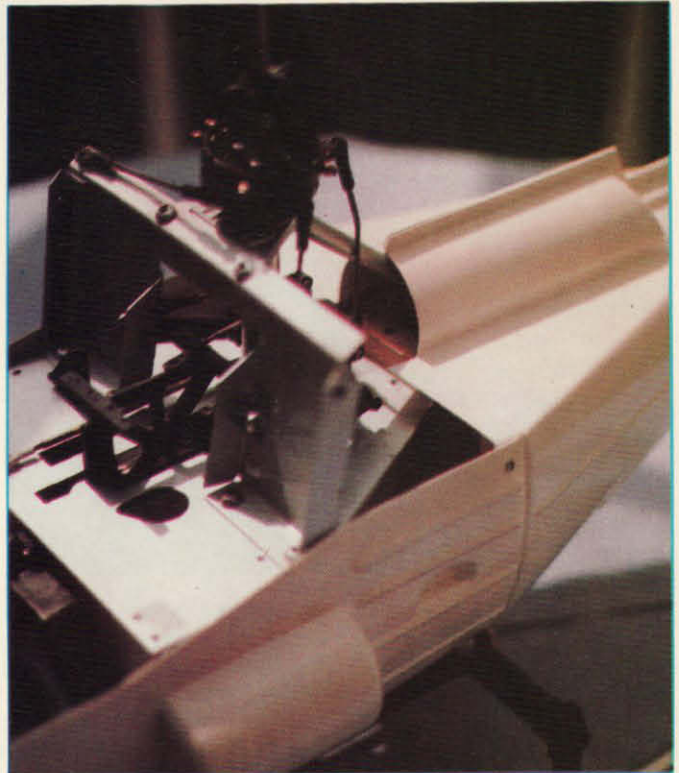


What you need before you start. The Scout is based on the Hughes 300 mechanics, the one we used — shown here — is normally flown with a three blade rotor head but had been refitted with its original two blader for retrimming prior to adopting the Scout fuselage. Jim Morley asked us to review the model in this form but hinted that he might send us a four blade head for a future article.

send us a kit for review in Heli-World. Jim knew that we both flew three blade Hughes 300 models so he sent us the Scout which is designed to go round this model. The Lynx is designed to please MXA owners.

Jim Morley asked us to review the Scout in standard two blade form but we are hoping to get a four blade head to put on this model for a further review at a later date.

The thinking behind the



materials used to form this fuselage is that it enables builders to work on the kitchen table. This material is ABS, a kind of plastic which is easy to work with, readily bonds with common adhesives and when worked will not aggravate the nasal tissues of the household. Jim Mor-

The fittings supplied for joining the two main sections were rather large headed self-tap screws and bent metal 'captive nuts'. This seemed a bit agricultural to us so we substituted those with 2mm self-tap screws with plywood backing pieces.



ley claims that because ABS can be worked so easily, the whole exercise of building a scale model can be made much easier. This may be true in the sense that the work can be done indoors without upsetting the wife but when compared to the usual material for model helicopters i.e. GRP or fibreglass as it's commonly known, a lot more work is required to get to the flying field when using ABS. A point for debate no doubt but in our defence we wonder how many models Jim Morley has made using the GRP method before deciding his way was easier.



The two main sections of the fuselage. The join line on the underside of the rear section is the only one that needs any attention for cleaning up.

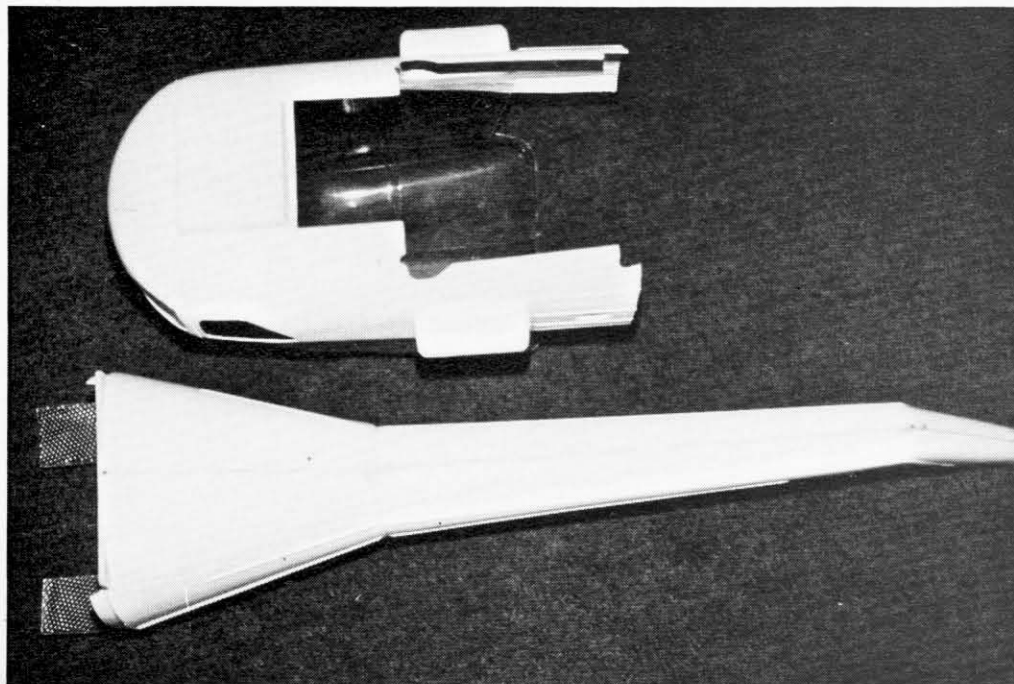
The Kit

As one would expect from an established manufacturer the kit is presented in a professional manner, arriving in a strong cardboard box topped with a photograph of the finished product. Opening the box was no disappointment either, it was full of ABS moulded sheet, plus

all the wooden parts and bits of hardware to complete the model including the glue for sticking things together. Any spare space in the box was taken up with layers of bubble-

Just about identifiable here is the tail drive cross brace, fitted at the joint of the boom and rear fuselage section. No mention of this was made in the instructions but we felt it was needed to support what would otherwise be a lot of whippy tail drive wire.

pack to protect the contents in transit. No full-size (or other size) plan is included, instructions are printed on A4 sheets — photo-copied, unfortunately so are the photographic parts which added to the vague written parts, and makes a less than helpful instruction manual. No real problem if you have



built a few already but for the first timer, inadequate instructions can be the difference between a pleasing experience and a harrowing one. In fairness to Jim Morley we should say that he recognises this point and is currently going to great effort (and expense), to put this matter right.

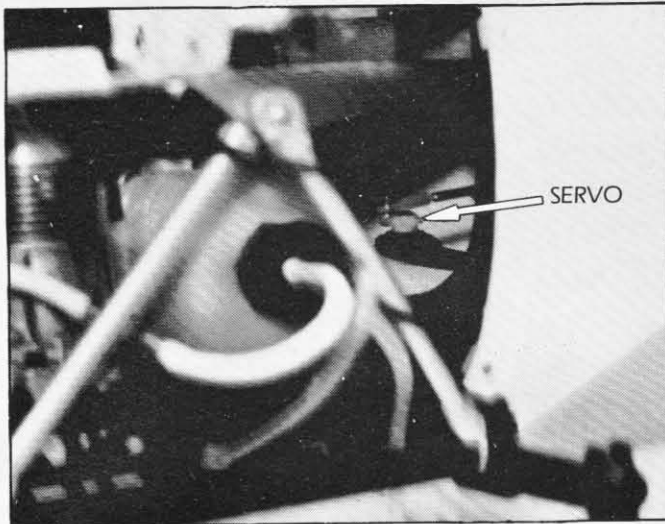
Getting It Together

The problems we had building this model were not only due to the poor instructions but also because we wrongly interpreted them (didn't read 'em proper). Our previous experience with ABS fuselage construction — the Robbe Avant Garde — led us to follow a similar method of construction. We now know this was a mistake. With the Avant Garde one

joins the two side panels together using the flange as a joiner then after fitting an internal reinforcing strip, the flange is removed and the joint is cleaned up with filler to create the appearance of a one piece unit. That's the easy way but on the Scout it should be done the difficult way. That is, the flange is removed and the builder has to butt-join the panels and then fit the strip of reinforcement.

As a result of doing it our way, when it came to joining the centre section to the boom section we couldn't get things to fit, the front section which should have had its flanges removed was too big to fit into the boom section which should (and did) have its top flange left on. The reason the top flange on the tail boom is left on is because it doesn't show on the completed model, the simulated tail drive shroud covers the join. A quick cut-and-shut job soon put things to rights but we thought twice about every step after that.

No other problems with the construction were encountered until we came to fitting the



Not the best photo we've taken but it does clearly show where we put the tail servo. This position makes for a good straight-ish and short run and the servo lead is long enough to reach the gyro box. The method recommended by Morley Helicopters — but not shown on the plan — takes the pushrod along a very tortuous route and would have made dismantling the model very difficult. Our way you just unplug the servo.

rather large one-piece canopy. The front section of the fuselage is a very floppy unit to handle until the canopy is glued to it and a lot of care is needed to ensure accurate alignment, you only get one shot at it if you want a clean and tidy job.

One step which needs accuracy and is very poorly illustrated is the position of the U-shaped former that bolts onto the rear of the mechanics. This former determines the position of the fuselage on the mechanics and the correct placement is essential. Since no locating holes are drilled in the former and the photographs don't clearly illustrate the point, we had to think hard and luckily got it right first time. The thing to remember is that the top edge of the former should be level with the top of the upper mounting block which bolts onto the main chassis plate of the mechanics.

Accurate gluing of the front panels is vital, without this dis-

ortion will occur and joining this section to the rest will create all sorts of problems.

One other point which confused us was the route of the tail rotor pitch rod. The shape of the tail boom moulding suggested that it should go between the gearbox mounting tube and the body mouldings but the supplied fittings suggest the usual inside the boom tube method. We built the model using the first method but with hindsight would have preferred the other way.

Everything else went swimmingly — as they say — until we came to the colour scheme. Westland designed the Scout for military purposes and in all its life it has never found a place in the civilian side of flying. Since we don't like to paint our models in camouflage colour schemes we had ourselves a headache.

We did consider the red white and blue version flown by the Imperial Test Flying School but we heard of others doing that one. So in the end we made one up using the scheme adopted by the United Nations for the real aircraft that they use. As far as we know they have never used a Westland Scout for their duties but we would be pleased to hear if they have.

In spite of the annoying problems that we have mentioned we are very pleased with the finished model. The Scout weighed in at just under eight pounds (about a pound more than the Hughes 300) but with an OS 45 FSR for power we had no trouble when it came to the test flights. We had ample power for vertical climbs and as for the controls, well any trim changes we had to make could just as easily be put down to changes in the weather.

Overall Assessment

Tricky to build using the instructions we had but jolly good value for money. A really attractive model and if you like the way the Hughes 300 flies then you'll like the way this one flies. At only £59 and with only the paint to buy, it's a snip. That is if you already have a Hughes 300.

