



RC MODEL WORLD

Hangar 9[®] F4U Corsair
HAN2575

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F4U Corsair



Chris Dickens takes to the skies with this recognisable warbird by Hangar 9 and Evolution engine combo and tests its build and performance

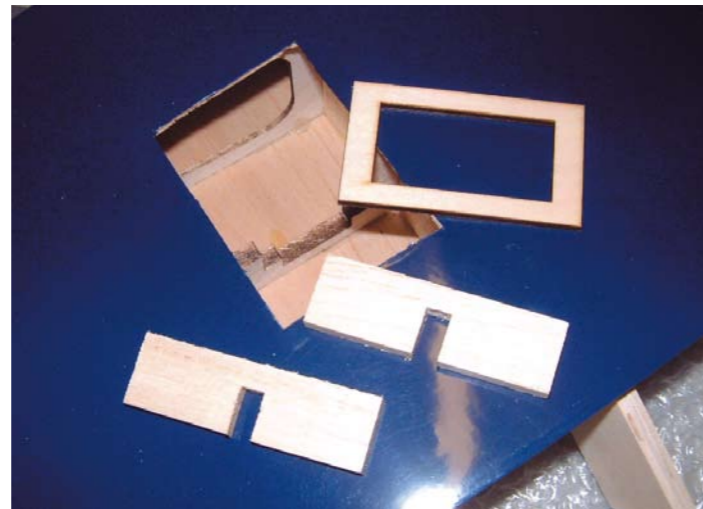
With its big round cowl and bent wings the Vought F4U Corsair must be the most easily recognised warbird there has ever been. Funnily enough I have never built a model of one so when offered this ARF kit for review I was more than enthusiastic, especially when told that the package also included an optional engine. I was a bit put off when it turned out that the engine was a 100 size two-stroke because normally I wouldn't dream of fitting a two-stroke to this type of model, but I wanted the model so a two-stroke it would be.

What's In The Box?

Even before opening the box is impressive, being of a decent size with full colour pictures on the model on the top and sides of the lid. One thing that struck me about the pictures was that the white control horns and fittings stuck out like a sore thumb and I was determined to do something about this on my model. On opening the box the quality of the packaging was immediately apparent with the wings and tail surfaces being the only things visible above the substantial cardboard divider, removing these revealed the bottom layer that contained the fuselage, cowl, canopy and all the accessories.

The wing, which is of fully built up balsa/ply construction fully sheeted to just outboard of the retract bays a D-box leading edge and open structure outer panels, comes in three pieces; a flat centre section that spans the fuselage has the lower fuselage fairing, made from GRP (fibreglass) already fitted, the two outer wing panels, with their distinctive gull wing shape have the retract units and rods pre-fitted the wire and metal parts are have foam protectors so that they will not damage the other components. The ailerons are ready fitted with their fluffy Mylar hinges but not glued. The tail surfaces are flat plate section, the tailplane, fin and rudder are open structure and the elevators are solid sheet.

The fuselage is again balsa/ply construction that is fully sheeted; all servo mounts are ready installed. The elevator and rudder servos being externally mounted and the throttle one within the wing cut out. The whole structure is covered in dark blue



Above: Retract servo mount and wing joiner fitted in wing

tough UltraCote® plastic film covering, with the white and red 'stars and bars', lettering and numbers, and a tallow fin top already applied. There is another sheet of vinyl stickers containing the instrument panel, unit badges and additional lettering. This sheet also contains some German and Japanese 'kill markings' which are probably not really appropriate as the finish is for a Korean War Corsair.

The GRP cowling and nice clear cockpit canopy are nicely finished in paint that matches the film exactly. There are also various plastic mouldings for the dummy engine, pilot's headrest, wheel-well linings and the air intakes on the wing leading edges. The engine is black, the wheel-wells are light grey and the intakes are blue which, unfortunately, is too dark and does not match the rest of the model. All that is left is a big bag of wheels, fittings, engine mounts, screws, etc.

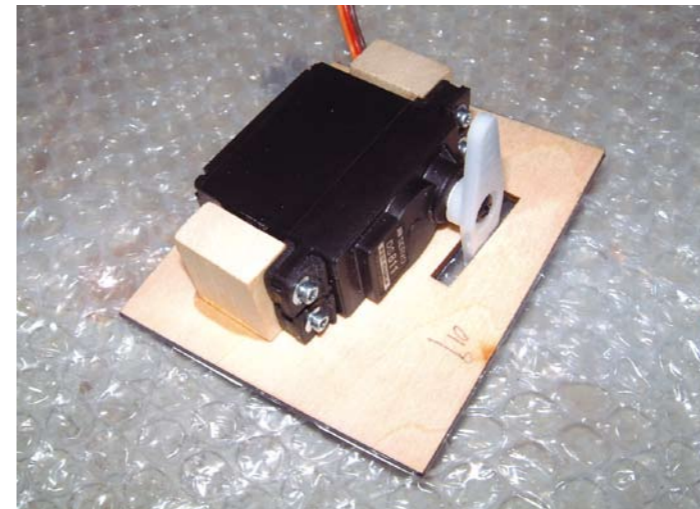
The engine mount warrants special mention as although it is



Above: Retract operating bell crank and rods are pre-installed

of the two-part T-mount normally found on quality ARTFs, it is unusual in being metal and having slots in the arms so that the motor can be slid fore and aft to get the exact firewall to prop distance, no measuring, drilling, and getting it wrong here then! Another surprise amongst the accessories is the fuel tank that comes ready assembled with pieces of fuel tubing also attached; this must be a recent change as the instructions contain a section on assembling the tank. The only major omission is the pilot figure. Why oh why is it mentioned in the instructions and shown in the box top photos (and the model would look silly without it) and then not supplied even though his headrest and instruments are included?

The instruction manual is the now normal multi-page booklet containing full step-by-step instructions with photos. I can remember, not so long ago, building and reviewing real kits (a box of balsa and a plan!) where the instructions consisted of a



Above: Aileron servo mounted on hatch

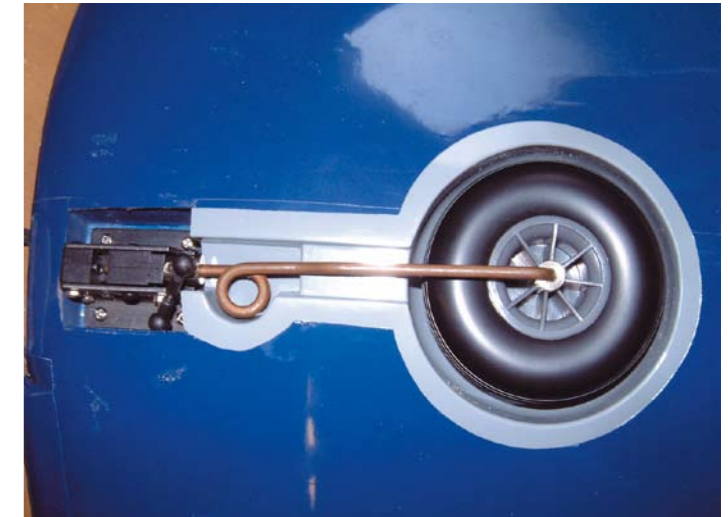
couple of, usually badly, typed and photocopied A4 sheets, how times have changed!

Putting it Together

If you follow the instructions, you will assemble the airframe, then install the engine, set up the retracts, install the radio, then finally attach the moulded parts, all perfectly logical and workable, but I decided for good reasons to jump from section to section and fully finish each component before starting on the next.

I won't give a blow-by-blow account, but will concentrate on the bits that were not quite right, were different, or needed modifying.

Assembly starts with the wing centre section. The retract servo mount is installed and the servo fitted, the two substantial but short wing joiners are then added. Mine were a perfect fit. Next



Above: Undercarriage bay covers fitted before painting

the main panels can be trial fitted to the centre section and the retract operating rods bent to line up with the servo. I found it easier to remove the bell cranks and the rods from the wing to bend them, it also meant that I could apply some thread lock to the bell crank fixings as they become inaccessible later in the construction.

I chose to fit the ailerons, servos and linkages to each wing before joining as it gives smaller units to work on and manoeuvre around the workshop and less chance of damage. Nothing unusual here and everything fitted and was usable. If this wasn't a review model I may have replaced the pushrods and clevises with more substantial metal ones but the plastic fittings

'retract units and rods pre-fitted'

supplied are good quality and I had no doubts about using them. The two outer panels were then epoxied to the centre section and the retracts hooked up to the servo, the retract design gives a large amount of travel at either end in the 'locked' position making the set up easy, especially if you are using the specified JR servo and servo arm size.

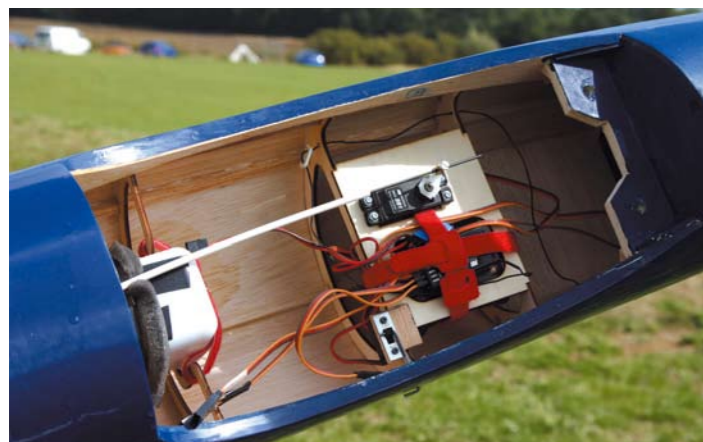
All that remains to be added are the wheels and well liners. The wheel hubs and liners are light grey, so to look good I painted them, and the legs, blue to match the rest of the model.

For the next stage of the build I turned to the front end of the fuselage. The mounts needed a slight chamfer on the inside edges to fit the Evolution 100 engine, but again with the slotted mounts and firewall lining up and positioning the engine was easy, the big radial cowl meant that there was no part of the engine, apart from the exhaust outlets, sticking out.

The only problem I had was finding a silencer to fit the engine which has a very large exhaust port, it's the same width but

Below: Take a look inside the fuselage and see the high standard of construction





Above: Check out this easy throttle servo installation



Above: The adjustable slots in the T-mount makes installation a doddle



Above: Tailwheel steering and rudder servo installation



Above: Nice instrument panel and optional pilot finishes it off



Above: A superb turn of speed for take-off with the Evo 100

nearly twice as deep as an OS 90, I ended up ordering a BCM Pitts-style silencer designed for the engine from the manufacturers in Canada. (I would have normally have ordered it from Just Engines but only the day before I had learned the sad news of Paul Landels' untimely death.) The dummy engine was fitted to the cowl but it is only a thin plastic moulding and I had to cut away the best part of two cylinders to clear the carb. To stiffen it up I filled the hollows with expanding foam filler from the local DIY store.

The cowl is 1/2" bigger diameter than the fuselage (it gives a goodly area of air outlet, no overheating problems!) so the four mounting blocks have to stand 1/4" proud of the fuselage. Easy enough to do but it does reduce the gluing area so as a 'belt and braces' I screwed them to the bulkhead as well as gluing. The front of the bulkhead is ready fuel-proofed but the cowl blocks aren't, so I gave the blocks and the inside of the fuz a coat of Clearcote.

'for this price you get a quality product'

The throttle linkage tube had been fitted with no problems so all that remained was a few cut outs in the cowl for exhaust pipes, plug access, needle valve, and fuel filler and to fit the ready assembled fuel tank. This was wrapped in a thin layer of foam and retained by a strip of Velcro.

The tailplane goes through a slot in the fuselage and needs to be fitted, along with the elevator joiner before hinging the elevators that are ready drilled and grooved, no problems here. The big difficulty at the back end was the rudder linkage! The rudder is driven by a torque rod which is also the tailwheel pivot, the servo is mounted on the bottom of the fuselage and connected to an arm attached to the shaft. The bottom bearing is ready fitted and the top one attaches to the fixed fin.

The tailwheel/torque rod is fitted from the bottom of the fuselage, this means that there is a piece of 12 g piano wire sticking up above the fuselage, tight up to the trailing edge of the fin which needs bending back to form the rudder drive. I consid-



Above: At one-third throttle the fast pass is just right

ered that this was impossible to carry out so I cut it short and made a 90 degree bend in the off-cut and soldered the two together with a piece of brass tube.

With this difficulty out of the way the rest of the model was soon finished, the only change I made to the instructions was to mount the switch inside the fuselage operated by a wire rod. Control throws were set up to the high and low rates in the instructions and the C of G checked. It was about 1/4" in front of the recommended position so I left it there.

Flying

This is where my brain somehow switched itself to 'stupid' mode! With everything charged up and ready, I gave your editor (my photographer), a call and headed to the flying field. Now I had here a brand new model, a brand new engine, and a brand new flight pack (apart from the throttle and retract servos). In the good (bad!) old days I would have been shot as a heretic!

Just to pacify the gods I carried out a thorough range check, removed the cowl and ran the best part of a tank full of fuel through the engine, which started easily and seemed quite happy apart from seeming to be a bit rich at the bottom end.

By now the editor was itching to take some photos so back on went the cowl, the oil wiped off and the obligatory ground shots taken. Back in the pits the tank was topped up and despite much flicking and the use of the starter there was no sign of life; a quick check showed that the plug was dead. A brand new plug was fitted and instant starting resulted! Out on the runway full power checks seemed to be okay but lower settings sounded a bit rough, but as I said my brain had now switched off its sensible part so the Corsair was taxied to the take-off point, with very good ground handling by the way.

With power gradually applied the tail came up and was held with a little up elevator, and the model lifted off in the 5 mph wind after about 30 yards at half power! The climb at this setting was very good and so I retracted the wheels, throttled back a bit more and set about trimming it out; a touch of up and a bit of right aileron were added during the first circuit by which time the model was at about 300 ft and upwind of the runway when... silence!

With no idea of the gliding speed or stalling characteristics I made a quick decision to turn back towards the runway and try and land downwind. With cries of "you'll never make it" coming from behind me I just let the model take up its natural glide angle and lined it up with the runway. When, much to my surprise, it became apparent that not only would it 'make it' but that the Corsair would be travelling quite fast. I put down the landing gear and tried some gentle weaves to kill the height and speed. The model touched down about a third of the way along our 90 yard runway and ran the full length of it tail up and into the rough at the end, it had just about stopped when it reached the drainage ditch, but not quite, and there was about a foot of water in the bottom of the ditch and one wing and the nose was in it. It took a week in the airing cupboard to dry out, but dry out it did with no ill effect. In fact the only damage was a bent undercarriage leg.

Lesson learned, I spent the next Sunday afternoon (which luckily was too windy to fly) running about half a gallon of fuel through the engine and getting it set up properly.

Attempt two was on a weekday evening with only one other member around, and he was test flying a new model as well. This time I was able to use the larger sports outfield rather than our restricted runway (much more room if anything goes wrong!). Again taxiing out and take-off was no problem and with confidence in the motor I set about learning what it would do. Half stick gives enough power for normal flight and at this speed the rolls look great. Full power means that you can make the loops as big as you want.

With one-third to half throttle long low passes for the camera were a pleasure as the model is rock steady and really grooves. It's easy to fly and you can put it exactly where you want. The stall was very gentle with only a mild wing drop. I haven't tried to three-point it on landing as I always think that this type of model looks much better doing a tail low wheeler, but even so it's landing speed is quite low and in zero wind the run is only about 30 yards. Scale aerobatics are easy with the power of the 100, I haven't tried any of the more vicious manoeuvres, what's the point - it's a scale model! In fact now it's sorted it is well worth the hassle of that first flying fiasco!

Conclusions

Did I like it? Would I buy one? Is it value for money? Well... I do like it. Apart from the rudder torque rod everything supplied was used and worked. All the parts were well made and fitted together, and the instructions couldn't be faulted. It flies a treat, wind seems to make no difference to the handling, and in the air it looks the part except for the externally mounted elevator and rudder servos and linkages which stand out like the proverbial sore thumb (they would have been even more obvious if I hadn't painted them blue!).

Would I buy one? Yes without a doubt. Value for money? Yes, definitely. Most shops are advertising it at just below the £200 mark but I have seen it discounted down even more, Okay £200 is more than some ARTFs but for this price you get a quality product and you will be able to use everything in the box. Yes I like it very much, well done Hanger 9!

Specifications

MODEL INFORMATION

Name: F4U Corsair (order code HAN2575)
Manufacturer: Hangar 9
Distributor: Helger Distribution
Kit Price: £229.99
Optional Evo 1.00NX Engine Price: £139.99 (order code EVOE1100)
Model Type: Scale ARTF
Engines: 0.61-1.00 2-stroke, .91-1.00 4-stroke
Test Engine: Evolution 1.00NX
Construction: 95% ARTE, balsa and plywood (includes retracts)

R/C FUNCTIONS

- 1: Ailerons (2 x JR 811)
 - 2: Elevator (1 x JR 811)
 - 3: Rudder (1 x JR 811)
 - 4: Throttle (1 x JR 591)
 - 5: Retracts (1 x JR 703)
- Transmitter:** Graupner/JR MX22,
Receiver: JR PCM RS77s synthesized
Rx Battery: 6 v (5 cell) 1800 mAh

MODEL DETAILS

Wingspan: 65.25" (1657 mm)
Length: 1.5" (1308 mm)
Flying weight: 8 lb 6 oz (3.81 kg)

TEST

Dislikes:
 Tailwheel/rudder linkage
 External rudder/elevator servos and linkages
 No pilot figure

Likes:
 Quality of construction and fittings
 Excellent flying characteristics

Contact Details

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