

The 1/32 XS-Models Curtiss R3C kits – Review

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The 1/32 Curtiss R3C kits were among the first to be released by XS-Models. At that time I was not pleased with them, because of the wings, which had no real wing profile and crude and incorrect surface detail. However, the kits have now been re-released with completely revised wings and some other enhancements, and the results are very much improved. The wings are also available as separate upgrade parts if you bought the earlier version. Contact info@XS-models.com for availability!



XS-Models "Curtiss R3C-1" (kit number 0320153C1MQ). 1/32 kit, containing 15 resin parts, 8 etched metal parts, 2 vacformed canopies, 2 white metal parts, steel wire for the rigging and a complete decal sheet.

The fuselage is conventionally split in vertical halves. The fuselage walls are rather thick and have no internal detail. The fuselage looks a bit wide towards the tail, so you could try to reduce the width by sanding the joints before joining the parts. Even though the cockpit opening is small and not very much will be visible through it I'm sure some of you will bring out the Dremel and make room for some improvements. I would certainly at least make a seat – the original was a simple unpainted plywood affair. There are some very nice etched parts for the instrument panel, one of the visible fuselage frames and the harness, but throttles etc and certainly a control stick could be added. The interior should be natural wood and natural metal, except the black instrument panel. You will find some drawings in BT#17, which were based on a photo in "The Speed Seekers".

The detail around the cowling is a bit soft, particularly around the exhausts and the carburettor intake, but these should not be difficult to fix. The panel lines of the real plane were of piano hinge type, which is difficult to represent accurately on a model. On the real planes the exhausts were surrounded by a sheet-metal shroud, which could be added from plastic card strips. Four oval etched access doors for the control mechanisms of the rear fuselage are included. It's not clear from the kit instruction where they should go, but they should be placed immediately below the horizontal tail, at around quarter-way and half-way down the chord from the leading edges. The propeller blades are cast integral with the spinner and some careful work with a scalpel to define the blade roots

better will improve the appearance. The blades should be thinned.

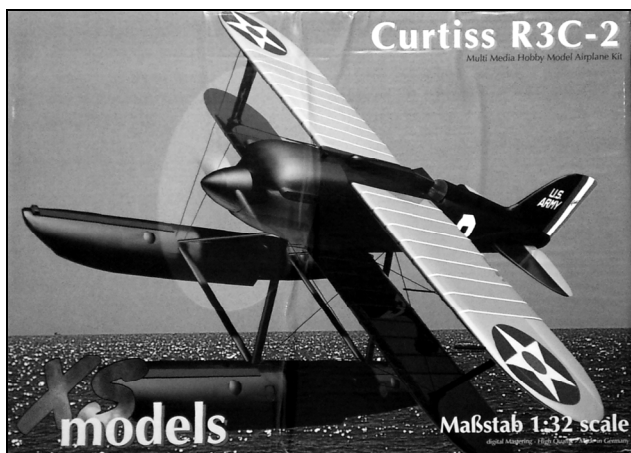
The landing gear consists of a single part for the triangular leg-axle assembly, which fits in a recess in the fuselage – note that it should be raked backwards and not forwards! There is a similar recess for the rear legs of the R3C-2 float struts, for which a filler plug is provided. On my kit the wheels were a bit rough and will need cleaning up. The fuselage casting has the little tail bumper of the R3C-2 seaplane version. This has to be removed before the landplane skid can be fitted. The revised wings are very good, with thin trailing edges. The radiator panels are very discreetly ribbed and a little bit raised above the rest of the wing. They look very convincing to me – a little bit wavy and rippled, just as on the real plane. A bit of carving and sanding will be needed before the wings fit to the fuselage. There should be two little streamlined "bumps", one on each side, beside the leading edge of the windscreen (see www.airminded.net/r3c/r3c_bettis_pulitzer_1925.jpg). Stainless wire is provided for the wing rigging. I have not tried this material, but if you can get the wires absolutely straight it should look great.

The decals are sharp and look thin. The blue of the national markings looks a bit light to me, but I know that's a matter of taste. The sheet is shared with the R3C-2 kit. It further includes the race numbers and the "U.S. NAVY" texts of the Navy's blue-and-gold #40 R3C-1, which isn't mentioned in the instructions, but not the circular "Bureau of Aeronautics" logos that were carried on the fuselage sides on that plane. The #40 race numbers also carry a black outline, which I'm not sure is correct. The painting instructions state that the wing tips and the elevators should be yellow – they are gold on the preserved R3C-2 and I have seen nothing in references or photos that indicate that they should have been any other colour on the R3C-1s. The black paint on the fuselage should not be high-gloss – photos indicate a more semi-matt finish. The propeller should be matt grey (anodized?). The gaps between each of the radiator sections should be silver-coloured. The front bulged part of the fairing between the top wings that covered the radiator header tank was lighter than the black fuselage, probably brass.

Conclusion

This is a rather simple kit with not many parts, of a rather simple plane which didn't have many complex external features. It certainly looks like an R3C, with the exception of the rudder top, which is too pointed and should have its radius enlarged. Most of the main dimensions are correct within manufacturing tolerances, with two exceptions: The lower wing chord is too large by 2 mm – not enough for me to bother about and anyway impossible to correct without destroying the surface detail. The horizontal tail surfaces are far too small compared to published dimensions, lacking around 10 mm in span (13 %) and 4 mm in chord (10 %). This is quite noticeable and I would recommend making new horizontal tail surfaces. This would also give the opportunity to make the surfaces thicker, since the kit ones look too thin, particularly in comparison with the rather substantial vertical tail.

In general the casting quality is high, almost without bubbles. Built straight out of the box the model will probably look a bit soft and toy-like around the front fuselage. It will benefit from some extra work around the cowling in order to sharpen up the exhausts and the panel lines (and note that there should also be a panel line below the fuselage centreline). On the other hand, the wing radiator panels should look great with a thin coat of your favourite brass metalizer. I would have liked a more detailed cockpit interior.



XS-Models "Curtiss R3C-2" (kit number 0320143C2MQ). 1/32 kit, containing 12 resin parts, 17 etched metal parts, 2 vacformed canopies, 2 white metal parts, steel wire for the rigging and a complete decal sheet.

The real R3C-2 was basically an R3C-1 equipped with floats, so it's natural that this kit shares most of the parts with the R3C-1 kit. The differences only concern the float gear. Later kits have one-piece floats, but my kit has earlier vertically split floats. These are attached to two sturdy triangular white metal landing gear leg assemblies, which fit into large slots in the fuselage, so the construction should be rigid and durable.

"The Speed Seeker" gives the float length as 16 feet 8 inches, with a distance of 9 feet 11.5 inches between the front and the step. If that is correct the kit floats are eight or nine millimetres too long, evenly spread over the length of the floats. This is around five percent, probably not enough to bother about. However, there is a more obvious problem: Aft of the step, the V-bottom is much too shallow and the floats lack very noticeably in depth. I estimate that they lack as much as three or four millimetres (around 30-40 percent) in depth at the rear ends. At the step they lack two or three millimetres at the centreline, reducing to perhaps one millimetre at the sides. It might not be all that

difficult to correct this. Since the bottom centreline aft of the step is straight in side view and it appears that the float bottoms were flat, new bottoms could be made by two pieces of plastic card, joined at the correct 120 degree V angle. These could be fitted below the kit bottoms and faired into the float sides with filler.

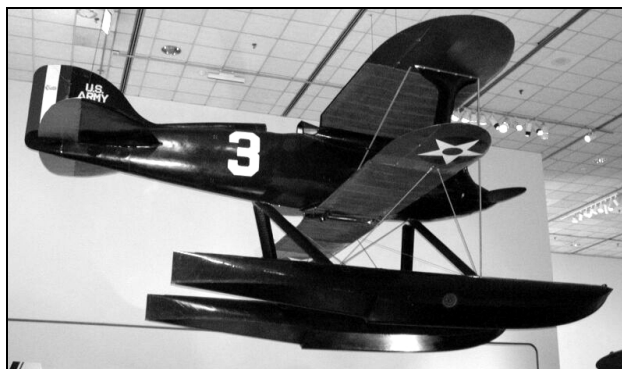


Photo of the preserved planed at the NASM

The top of the floats are correctly depicted as being completely straight in side view. Joseph Nieto's old "Model Airplane News" drawings are completely wrong as regards the floats (and the surface radiators), so don't even bother looking at them!

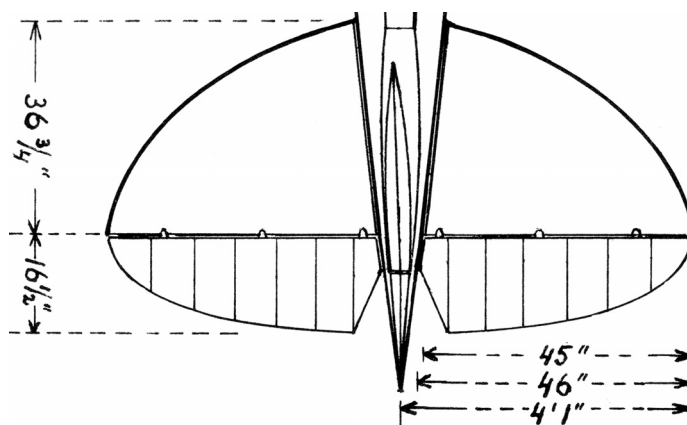
The kit includes four etched access doors for the floats. The layout of these doors seems to have varied between different planes. The kit instructions show three on the outside of each float and one on the inside, opposite the front one. Further etched parts provide the walkboard for the top of the floats. Note that the floats should have prominent strengthening "keels" along the bottom centrelines.

The comments regarding the R3C-1 decals and paint scheme also apply to this kit.

References

- **Thomas Foxworth "The Speed Seekers"** (Haynes, 1989, ISBN 0-85429-766-9)
- **Reed Kinert "Racing Planes and Air Races, Volume II"** (Aero Publishers, 1967)
- **Bent Throttles #17** (December 2000)
- **Bent Throttles #43** (February 2008)

Thanks to Andreas Krause and XS-Models for the review kits!



The horizontal tail in 1/32 scale (drawing by HC Kavelaars)