Curtiss XF15C-1

History: From 1943 the United States Navy became interested in the development of jet engine powered fighters. However application of the new engine to naval use presented problems that did not impede development of land based jet powered aeroplanes. The three most serious problems the new engine presented were a long take-off run, a high landing speed and the relatively inefficient performance of early jet engines that required a lot of jet fuel. Part of the solution to these problems lay in the development of new aircraft carriers with more powerful steam catapults, the re-arrangement of flight decks to cope with high speed jet aircraft and the creation of jet aviation fuel storages on aircraft carriers.

Despite these problems the US Navy proceeded with the development of its first generation of jet powered fighters, the FJ, FH and F6U fighters but, as an interim solution, ordered composite fighters powered by piston and jet engines. These fighters would retain the advantages of traditional piston engined fighters but also have the enhanced speed and power of jet engines during take off and combat. Two companies proceeded to construction of prototype composite fighters, Ryan and Curtiss.

On 7 April 1944 the navy awarded Curtiss a contract for three XF-15Cs. The fighter's first flight occurred on 27 February 1945, but without its jet engine. The jet engine was installed in April 1945 but the fighter crashed a month later when the piston engine failed during landing. The second prototype first flew on 9 July 1945 and the third later joined testing. To overcome a control problem their low set tails were later replaced with T-tails.

Curtiss had been supplying the Navy with fighters since the 1920s but its advanced designs of that period had not equipped it to compete with other companies in the 1930s. So when the United States went to war in 1941 other companies were producing the navy's fighters. This left Curtiss free to work on the coming generation of fighters and so the new composite fighter offered the possibility of re-entering the fighter market. However, the navy preferred the Ryan fighter over the Curtiss one even though it was larger and more powerful. Although there was no prospect of production flight testing continued until the end of 1946 before the two remaining XF15Cs went to museums. Even then, the end of the war and the rapid evolution of pure jet fighters meant the composite fighter rapidly became redundant and very few Ryan FRs were produced. The XF15C was the last of the Curtiss company's fighters.

Data: Single-seat naval fighter. *Engines* one Pratt & Whitney R-2800-34W radial piston engine of 1545 kW (2100hp) and deHavilland H1-B Goblin (Allis-Chalmers J-36) jet engine of 1225kg (2700lb) thrust. *Wing span* 14.64m (48ft). *Length* 13.42m (44ft). *Maximum take-off weight* 8490kg (18,698lb). *Maximum speed* 755km/h (469mph). *Range* 1022km (635miles). *Armament* four 20mm cannon.

The kit: Pro Resin 1:72

I have several weaknesses. One is French aviation, another is that period in the history

of the US Navy when their aircraft were all-over deep sea blue. (There are others, but since this is a family newsletter...) For about ten years the US Navy's aircraft flew in that deep blue shade, a period extending from the last year of the Great Patriotic War to the beginning of the great arms build up of the Cold War. It was a period of great innovation and experimentation and a period that includes most of the aeroplanes involved in the war through until the almost equally attractive period when US Navy aircraft wore some of the most extravagant scheme ever flown. The other great attraction about the deep sea blue period was that the navy was totally indiscriminate about where it sprayed that colour so just about every part of the aeroplane including the wheel wells go the blue treatment (I was overjoyed to see a McDonnell FH in the National Air & Space Museum in Washington, partly because it confirmed this fact despite other things that I had read and heard. If it's good enough for that museum it's good enough for me.) This means that painting aircraft from this period is easy work.

The Curtiss XF15C is a very attractive aeroplane if you like the late-war US style. It is big and brutal and demonstrates the fact that the experience of fighting a war leads to the development of the most effective designs but also the most ingenious and unexpected experiments. On the one hand the XF15C has the powerful shape dictated by those big radial engines but also the tadpole shape with the high tail that many early jet powered designs had. Put that together with deep sea blue and the combination is irresistible.

I had wanted to add one of these shapes to my collection ever since I first saw a picture of this Curtiss aeroplane. But so far the kit manufacturers have gone for other things and the only thing of any use was a very basic vacform kit. I started on one many years ago but failed in my attempt to turn it into a scale model aeroplane. More recently I found another of the vacform kits at a swap & sell (for $2) but put off starting on it. Then a couple of Eastern European manufacturers produced resin kits and I finally gave into temptation and got one. Pro Resin offer versions with the low or high tail, I like the later look better so I got that.

As well as the resin parts there is a small set of brass bits, a vacform canopy and a nice decal sheet. This was the first fully resin kit I've worked on, the resin parts are beautiful to behold and it seemed almost a pity to begin cutting them up to make the model. The most time consuming part of the whole process was cutting out and trimming each tiny part, in fact, it took about three nights to get ready to start assembly. Then I realised that most of the detail was in the cockpit and really I had expended most of my effort for nothing because you can't see most of it. Assembly was, for the most part, straight forward and the only real difference between this and a limited run plastic kit was the use of superglue and five minute epoxy. I had trouble getting the nice little cockpit to fit into the fuselage halves and had to do a lot of adjusting of the undercarriage to get the model sitting properly on the ground, it ended up looking fairly close to the real thing but still seems to sit a little high - but I've done more than enough to the delicate undercarriage already to want to risk it collapsing if I do more.

The deep sea blue finish went on easily enough, not perfect but near enough. The end result? While resin kits like this are not cheap it was worth the expense to add this unusual model to my collection. It looks good along with other models covering that blue period.