

THE LITTLE AVIATION MUSEUM

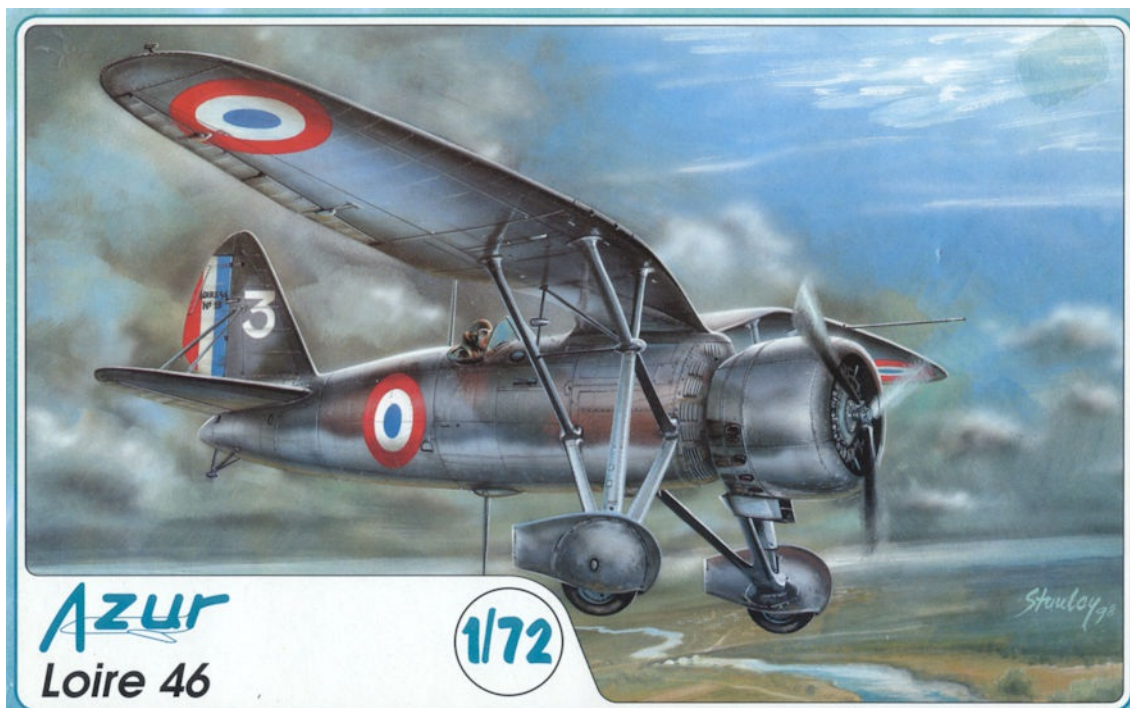
Workbench notes

LOIRE 46 IN /72 BY AZUR

(December 2003)

In 1940 the standard equipment of the French Air Force proved to be inferior to the fighters employed by other countries such as Germany and Britain. As a result the French were forced to purchase Curtiss Hawk 75As as a stopgap until their next generation of fighters were ready for large scale service and by then it was too late. This critical lack of up-to-date equipment came from two sources; one was the not uncommon French inability to make critical decisions and then follow them through, the other was that the French program of equipment was about two years out of step with other countries so that in 1938 its frontline equipment was at least equal to that put into the air by the opposition and it would have had superiority again by around 1942. But, in 1940... The little Loire 46 was the result of these problems.

In 1930 the French *Service Technique de l'Aeronautique* issued specifications for a new fighter which was fairly conventional for the time but also acknowledged that speed and firepower would be perhaps more important than manouverabililty in the future . Of the many proposals submitted ten designs were awarded prototype contracts. The selected designs included only one biplane, five low wing monoplanes, one parasol monoplane and three gull-winged monoplanes. In addition five privately funded prototypes were entered into the competition, two gull-winged monoplanes and three parasol monoplanes. (The gull-wing had been popularised by the Polish



designer Zygmunt Pluawski of PZL because they provided better visibility than the standard braced wing above the fuselage.).

The overall winner of the competition was the Dewoitine 500 but several other designs also reached production, partly because the French authorities were not prepared to risk everything on one design. Loire was granted a prototype contract for its model 43 proposal and also entered a Loire 45 in the competition, the main difference between them was that one had a radial and the other an in-line engine. The concept was developed into the model 46 that was granted a production contract along with the Bleriot SPAD 510 and Dewoitine 371 fighters. The 46 was virtually a new design in the same philosophy as the 43 and 45 models with a wing centre-section more steeply gulled, the wing redesigned, the engine was lowered and the pilot's seat was moved further aft and raised to improve visibility.

The first Loire 46 made its maiden flight on 1 September 1934 and an order for sixty was placed in early 1935. They entered service with the French Air Force in 1936 where they flew with the 6th Escadre at Chartres and were replaced by Morane Saulnier 406s in December 1938, after which they were used for gunnery training. Five were also sold to Spain and they flew for a short time in the Spanish Civil War before they were destroyed or grounded for lack of spares.

There I go again, buying a kit of a French aeroplane I know nothing about. Again I found myself intrigued by the shape of the thing, an odd combination of some of the ugliest and some of the most aesthetic features an aeroplane could have, but all wrapped up in one aeroplane. So I did some more research. These kinds of aeroplane kits are a reminder of the evolution of aeroplane designs, the Loire 46 comes from a period when designers were trying to find the way from the biplanes of World War I to what would become the norm of the low wing monoplanes of World War II.

Azur have been improving since their first kits, they are still limited-run kits and the fit of parts is still problematic at times but overall the shapes are very good and the engraved detail has just the right touch. The addition of some etched brass and a very nicely detailed engine only add to the quality of the kit. When it comes to construction there really isn't much difference between these kits and the products of Mr Tamiya and Co except that you have to be careful to test the fit of every part and be prepared to do a little bit of filing or whittling to get parts to fit as precisely as is necessary. The only thing this kit takes is a little more skill and patience than the normal modern kit.

As with some other kits of aeroplanes from this period the most daunting part of construction is the bracing and undercarriage struts. Apparently the Loire 46 was a little delicate in the landing department and a heavy landing could see a strut puncture through the wing; when it comes to assembling these parts it is easy to see why as struts seem to go everywhere. Fortunately the construction process is not too difficult (if you've fitted the wing properly) as the main struts are made up in one piece and more or less fall into place. The rear struts are more complex as they are made up of smaller pieces and I'm sure - after having stared at as many photos as I could find - that the kit offers two struts that have nowhere to go.

When it comes to making the reinforcing struts for the tail and the rear undercarriage pylon the kit supplies them but the amount of effort you'd need to put into getting them nice and smooth and of the right thickness suggested that bits of stretched sprue cut to the length of the parts in the kit would be a better bet. It was and it came out nicely.

One of the most obvious features of the Loire 46 is that it looks like the engine is just about to fall off. This effect is not as easy to get as you might think and it took me a couple of goes to get

it right. Only ask me about it when I seem to be in a really cheerful mood.

The kit offers markings for French and Spanish versions but the French colours appear to be for the last period of the Loire 46's operations when they were at the Cazaux Gunnery School. Still, it is interesting to see a fighter from this earlier period wearing full camouflage, even though it was not the easiest thing to complete with all those struts in the way. It was a bit fiddly at times but we got there and the end result is more pleasant than I had expected it would be.



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