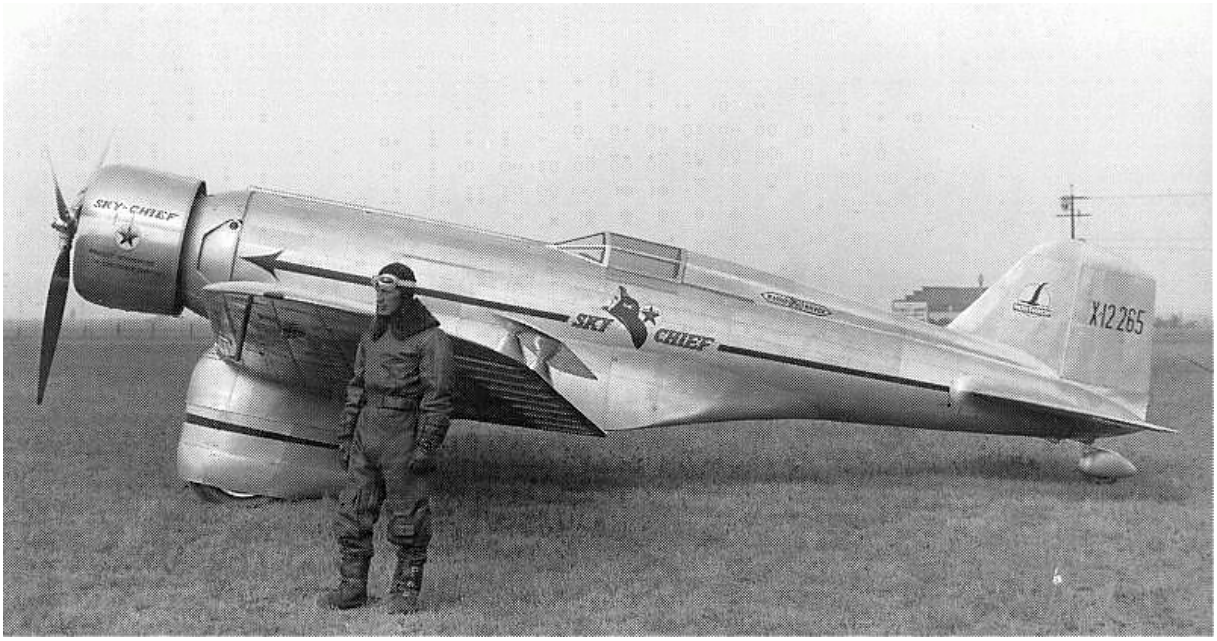
Northrop Gamma 2A

History: John Northrop began work as a garage mechanic with little formal education but, like many of his generation, a fascination with flight. As a mechanic he acquired the experience and knowledge that made him a skilled and innovative designer in later life. He worked for the Loughead Brothers when they started building aeroplanes in California and designed a two seat sports aeroplane for them. A couple of years later he went over to Douglas and was involved in the design of the Douglas World Cruiser before returning to what was then Lockheed where he designed the Lockheed Vega. He wanted to work on more innovative designs but Lockheed didn't so he moved on. Circumstances saw him involved with a number of companies including, from 1932 to 1937, the Northrop Corporation which was fifty-one per cent owned by Douglas. During that time he designed and built the Northrop Gamma.

The Gamma was a continuation of earlier design ideas demonstrated in the Lockheed Vega and the Northrop Alpha, both advanced designs for their time with monoplane wings of multicelular aluminium sheets that were the precursor of the wings of such important designs as the Douglas DC-3 and the Douglas SBD. The Gamma combined that style of wing with a powerful engine and a streamlined metal fuselage. The first Gammas were built to special orders as record breaking and research aeroplanes, later ones included military and commercial versions. In all fifteen versions were finally manufactured, eleven of them with only one being made, a couple with twenty or so and the final version, the 2F of which there were 102, appears to have little in common with its earlier versions and served as a light attack and training aeroplane in the early days of World War II.



The first Gamma, the 2A was designed in 1932 and bought in February 1933 by the Texaco petrolium company for $40,000. It was used by Frank Hawks, a famous American aviator who was also the director of Texaco's aviation department, in a number of long range record breaking flights. In June 1933 he flew the 'Sky Chief' from Los Angeles to New York in 13 Hours, 26 minutes and 15 seconds.

Data: High performance racing/experimental/commercial aeroplane. *Engine* one Wright Whirlwind GR-1510 585kW (785hp) 14 cylinder radial engine. *Wing span* 14.6m (48ft). *Length*

9m (29ft 9in). *Maximum take-off weight* 1589kg (3500lb). *Maximum speed* 321km/h (200mph). *Range* 4023km (2500miles)..

The kit: William Brothers 1:72

This is another of those kits that I knew nothing about when it came into my hands. It is not really the kind of kit that I would have picked out to make but it was virtually given to me by a fellow modeller who had bought it and then realised he was never going to make it, so why keep it. The reason I made it was because I wanted to experiment with the Alclad II finish that I'd already tried a couple of times before and wanted to, again, use it on something that I wouldn't mind having to throw in the bin if it didn't work.

This is the second Williams Brothers kit I've completed, like the first it is a strange mixture of good and bad features. The general shape and the quality of the parts is fair, the options offered are very generous, allowing the modeller to make two basic versions, the 2A and the 2B in two different versions each. The instruction sheet is detailed and complicated, mainly with instructions about how to chose which version you want to make and then how to do it. You get two different engines, cowlings and propellers, two different cockpits, fuselage windows and different tail wheels. The other conversions you have to do yourself. For example, most versions have 'park bench' ailerons but if you want to make the version that has ordinary ailerons you have to scribe them for yourself. Similarly, if you want to make the first phase of the 2A you have to cut a bit off the tail for yourself. None of this is very difficult and the instructions give you all the information you need, but there is so much of it that you'd need to spend an evening going over everything a couple of times just to make sure you understand how it all goes. (I didn't do that preparation straight away but during the entire construction process the time I spent reading and re-reading the instruction sheet and peering at photos to try figuring out what it all meant would have added up to well over an evening.)

The construction is not really difficult but any Williams Brothers kit is like your standard limited run kit, which means that you have to take your time and make sure that all the pieces fit properly before letting glue near them. Most pieces need a little bit of finishing off and tidying before they fit properly and it is really just a matter of having a bit of patience about the whole process. Even then some parts seem specially designed not to fit and I had to make a new cockpit canopy because the one supplied just didn't work for me. When construction was finished there were a few spots that needed some filler, but not as many as I had anticipated.

This was the second time I used Alclad II with the recommended gray primer. I had no troubles with the primer or the laquer, they both went on beautifully and the finish is as good as I've ever achieved for a bare metal aeroplane. There is still a slight hint of paint about the finish but not enough to put me off. The decal sheet is very good and thin - so thin in fact that putting the larger decals on is a bit terrifying. After a few tense moments they all settled down and the end result is a nice little model that isn't going anywhere near my rubbish bin.