The AMA History Project Presents:
Autobiography of
JOHN STEWART ALCORN

Born in 1932 Started modeling in 1940

Written & Submitted by JSA (06/1999); Transcribed by NR (06/1999); Edited by SS (2002), Reformatted by JS (08/2009)

Career:

- Won Best Aircraft Award for model of DeHavilland DH9A model at the EMPSIUSA Nationals
- Built model of Wedell-Williams#44 for Smithsonian's Exhibit, *On Miniature Wings*
- 1993: Wrote book entitled *Scratch Built!: A Celebration of the Static Scale Airplane Modeler's Craft,* published by Schiffer
- 1999: Collaborated and edited book called *The Master Scratchbuilder* Published by Schiffer

In 1999, the Smithsonian Institution created a traveling exhibit on model aviation, Called "On Miniature Wings." It will travel the entire country, giving the average citizen the history of model aviation and its importance in the development of many skills and concepts derived thereof. It chronicles the biography of a number of famous modelers that made all of this possible.

This is a sample of the text that was used by the Smithsonian in that exhibit. This was sent to me by a Ms. Gail Spilsbury, the editor in charge who put this exhibit together.

John Stewart Alcorn

> *For most modelers, the primary motive is to faithfully replicate some historical artifact in miniature, which has captured the creator's imagination. The rich, complex, and almost incredible development of the airplane in our 20th century – from the Wright Flyer to modern airliners –presents a deep and abiding fascination to many people, of all ages. An authentically and well- rendered model airplane is a tangible representation of this saga, to be admired both for its craftsmanship and for the story it suggests.*
>
> *-John Stewart Alcorn*

I entered this world in Tulsa, Oklahoma, on the 29th of February 1932, the night that the Lindbergh baby was kidnapped. Our family moved to Houston, Texas in 1935, where I grew up. I graduated from The Rice Institute (now Rice University) in 1955, with a Bachelor of Science degree in mechanical engineering.

I spent 35 years as an engineer engaged in the design, procurement, construction, and testing of large electromagnets, mostly for high-energy physics and fusion power research of the liquid helium-cooled niobium titanium (NbTi) superconducting variety. During this time, I worked at two physics research laboratories and two private companies, retiring from Continuous Electron Beam Accelerator Facility (CEBAF) in Newport News, Virginia on my 16th real birthday (1994).

While I became fascinated with airplanes very early, my first coherent memory of model building was in 1940, when I constructed a Curtiss P-40 from a Hawk kit (a balsa “solid”). The event, which kindled my youthful aviation enthusiasm more than any other, was seeing a Messerschmitt 109E that had been shot down during the Battle of Britain, exhibited in 1941, on a Bundles-for-Britain (charity) drive. During the war years, I ran a veritable production line of solid wood models, initially based upon 1/72nd scale recognition model plans. While in the Navy from 1955-57, I built my only jet aircraft model ever, an F7U Cutlass. From 1959 through 1972, I averaged about one solid model every two years, mostly World War II types, to larger scales.

In about 1969, I made the acquaintance of George Lee, a colleague at the Stanford Linear Accelerator Center (SLAC) in Palo Alto, California. He persuaded me to convert to scratch building in polystyrene plastic. My first plastic effort, a 1/32nd scale Douglas A-20A, took Best of the Show at the 1974 International Plastic Modelers Society USA (INWSUSA) Nationals in Anaheim, California; receipt of the first-ever Judge's Grand Award for my 1/32nd scale Rumpler C.IV in 1977, was equally as unexpected.

In 1990, I embarked upon construction of my magnum opus, a 1/24th scale DeHavilland DH9A, a two-seater biplane, to be finished in the colors and markings/configuration of a machine in mid-20s RAF “Empire” service. To my amazement and frustration, this project spanned nine years, consuming 6,400 hours of my life! It was completed in June 1998, just in time for the EMPSIUSA Nationals, where it was awarded Best Aircraft. I am presently completing a 1/16th scale Vought 03U-3 catapult floatplane begun by George Lee, who passed away in May 1992. 1 reckon that I am good for one major scratch-built effort thereafter.

George Lee, Peter Cooke (of England) and I collaborated on a book entitled “Scratch Built!: A Celebration of the Static Scale Airplane Modeller's Craft,” published by Schiffer in 1993. Encouraged by its success, I acted as general editor on a sequel, entitled “The Master Scratchbuilders,” also published by Schiffer and released in 1999.

Whether produced from commercial kits or scratch-built from raw materials, model construction can be an immensely satisfying craft, if diligently pursued. The pleasure is one of meeting a challenge, developing skills and of beholding a finished product that reflects your personal best, and is admired by friends, family, and fellow enthusiasts. As with any challenging endeavor in life, the satisfaction increases as the skills and knowledge develop.

For most modelers, the primary motive is to faithfully replicate some historical artifact in miniature, which has captured the creator's imagination. The rich, complex and almost incredible development of the airplane in our 20th century – from the Wright Flyer to modern airliners – presents a deep and abiding fascination to many people, of all ages. From the pioneers who first mastered the fundamentals of manned, controlled, powered flight; through the daring exploits of aerial adventurers like Lincoln Beachey, Charles Lindbergh, and Amelia Earhart; to the courage and sacrifice of combat crews during both World Wars and other conflicts; to the astonishing sophistication, convenience and safety of airline travel today; we have witnessed an adventure and achievement unexcelled in human endeavor. An authentically and well-rendered model airplane is a tangible representation of this saga, to be admired both for its craftsmanship and for the story which it suggests.

For me, an example of the challenge and satisfaction of this hobby was the invitation to build a model of the Wedell-Williams #44 for the National Air and Space Museum's (NASM) Air Racers exhibit (in the On Miniature Wings exhibition). As I began my research, it became clear that no reliably accurate plans – three view drawings – for this airplane existed. Evidently, none had been prepared for construction of the actual aircraft! Its designer, Jimmy Wedell, had no engineering training, but was simply a good, experienced pilot, with a general hands-on knowledge of how an airplane worked. So, I prepared my own drawings, based upon such reliable overall dimensions as have been published and examination/scaling of the many photographs of it, which I had collected from the NASM archives and elsewhere. (The actual aircraft had crashed during an air race in 1934.) This research for configuration information and subsequent drawing preparation, was perhaps the most enjoyable aspect of the entire project.

The Weddell-Williams 944 model was constructed almost entirely of polystyrene plastic sheet, purchased commercially. The major components – fuselage, wings, engine cowling, cockpit canopy, wheel "pants," and tail – were formed by heat and suction of such sheet over hardwood forms, which I carved based upon my drawings. I used a homemade "vacuform." The plastic, mounted in a frame, was heated to softness in the kitchen oven. It was then quickly removed and pulled down over the form, which was resting on a metal box with a perforated lid. The family tank type vacuum cleaner provided the suction, which pulled the plastic snugly down around the form. Much internal structure, also of plastic, was later added to support these elements. This included cross-section shapes (formers) in the fuselage, and spars plus ribs in the wings.

Much other detail had to be scratch-built, including the engine, propeller (carved of basswood), landing gear and cockpit interior. The model was painted using a commercial artist's airbrush to apply thinned automotive lacquer. The markings are water-transfer decals, made from pen-and-ink drawings, which I had prepared based upon photographic evidence. I made the multicolor decals using the silkscreen process.

During construction of the Wedell-Williams #44, which took about 1,200 hours during 1981, I became so fascinated by its appearance, and by its dramatic role in early 1930s air racing, that I

couldn't bear to part with it. So, immediately following its delivery to the NASM, I began construction of another for myself.

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