

Airplanes, Airplanes, Airplanes!

by Allie Kay Spaulding for the Lompoc Record, March 8, 2008

Who knew! It turns out that people are building airplanes all over Lompoc. They are even organized. The sign at Ocean Avenue and Highway One could read: "Lompoc, the City of Arts and Flowers and Self-built Airplanes".

Take William A. Brink, for example. Well, perhaps he is more of an exception than an example, for in his backyard he is building a biplane, a Skyote sport biplane.

Airplane-challenged columnist: "Why a biplane? Isn't that a really old-timey type?"

Small silence from builder, followed by a kind look often bestowed on the hopeless: "Maybe it's because that's the kind of plane I learned to fly in--on May 16, 1947. It was a Stearman, one of the WW II Army trainers." That is evidently enough reason to sustain a long-term project; he started construction in 1988.

Not only is he building a kind of plane you don't see in the skies everyday, he is building it "from scratch". For Bill Brink, the recipe is a detailed set of plans. That is all he had to begin with. From that point on, he had to assemble all the raw materials, items such as 2024-T3 DuraClad aluminum, 3.8-ounce Dacron, 4130 steel tubing and steel plate, AN (Army-Navy) standard nuts, bolts, washers, rivets, clecos, and tools that would cut and bend sheet metal as well as things that would rivet and weld, for Bill Brink will fabricate all the parts of his flying machine.

In his backyard workshop was a recently finished part which exemplified the intricacy of work and the variety of tools necessary for such an undertaking. A dark-painted section of wing was laid out on a workbench. The edge of its aileron was shiny, with faintly discernable parallel lines on the curved edge. Bill yanked the tarp off a four-foot-long piece of machinery that looked like an elongated vice.



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"This is a sheet metal brake. I used it to make that shiny aluminum part."



The aluminum had been inserted into the "jaws" of the brake and bent seven degrees, again and again until the sheet had a 180-degree bend. Then he had riveted it to the leading edge of the aileron, which he had also fabricated from sheet metal.

The Brink backyard has a fence with an ordinary-size gate. Suddenly the picture of a complete airplane going through that gate didn't compute.

"I built the fuselage first. After each section is completed, I truck it over to my hangar at the airport. Want to see the fuselage?"

Of course I did. We rode down North H to the Lompoc Airport, into the hangar area near the far end. As Bill slid open the heavy metal door to his hangar, first the empennage (tail section), then the fuselage, then the wings and cockpit and propeller of a sweet little flying machine came into view. "Lady Guinevere" was nicely lettered on her side and she was obviously ready to fly.



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Bill flung an arm lovingly over the cockpit. "This is my mistress."

I couldn't help the next question: "But if you already have an airplane, why are you building another one?"

"Just for the accomplishment of doing it."

The metal skeleton of the biplane's fuselage was sitting nearby, a key already in the ignition. This biplane is a one-seat "tail-dragger", meaning its third wheel is under the tail section, whereas the Lady's third wheel is under her nose, making what is called tricycle landing gear.



A few hangars away another project is underway. Steve Wycoff is building a GP-4.

Designed by George Pereira, it is described as a high performance, side-by-side two-seater of wood construction, also with tricycle landing gear. Steve started "from scratch", too, thirteen years ago, working from 57 pages of blueprints. He sometimes departs from the plans, giving meaning to the name "experimental aircraft" for self-made planes, but when he does so, he consults people with wide experience in aircraft construction. Good sources of information are other members of an organization to which he belongs, the EAA, the Experimental Aircraft Association.

Lompoc's EAA Chapter #275 numbers around 40 members. At least one of the members has built two planes. Maureen di Necochea, retired Cabrillo High School teacher, first built a Zenair 801, then a more versatile RV-7A, both from kits. Mrs. di Necochea's decision to build two different kinds of planes raised a question: how do you decide which kind to build?

Steve Wycoff shared criteria that fliers often use:

1. Figure out what kind of flying the plane will be used for--cruising the nearby area or traveling some serious distances.

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2. Assess your ability as a mechanic and an engineer. Starting from scratch requires more skill in more areas than building from a kit.

3. Decide in what medium you enjoy working--for instance, wood or metal.

Making those decisions helps to narrow the field.

On interviewer tiptoe, I asked the burning question: "Is an airplane that you make yourself really safe? Just the fact that it is called 'experimental' sounds risky."

The answer came swiftly. "Experimental aircraft have much better safety records than general aviation aircraft that are factory-built."

"How can this be?"

It was explained that, admittedly, "experimental" means built by amateurs. It is also true that experimentals are built under sets of rules not as closely regulated as factory-made planes in that there is more latitude to try different techniques and materials. And it was conceded that although an experimental must be inspected by a licensed FAA (Federal Aviation Administration) inspector before it can be licensed to fly, the foremost concern in licensing an experimental is that the aircraft not endanger the general public, the people who, as Steve put it, did not go flying that day.

"But how about concern for the pilot?"

Two builders were asked and both gave the same response: the force that works to guarantee the safety of the pilot is the fact that the builder will be that pilot. This fact "drives the train" during construction. This fact dictates that procedures follow the most stringent guidelines, that the best possible materials be used, and that the builder utilize the best wisdom out there from experienced builders.

Could that fact be at least part of the reason why Bill and Steve, building from scratch, have been at it, cumulatively, for 33 years?