Tales from a
Sisters Naturalist

by Jim Anderson

Vern Goodsell is at it again

Vern Goodsell, Sisters Country airplane builder, rebuilder, aircraft body-and-fender man, and all-around aviator, is at it again. This time he's working on a Marchette Bird Dog, a high-wing observation spotter plane that saw many hair-raising times during World War II, Korea and the Vietnam War.

The Cessna L-19/O-1 Bird Dog was the first all-metal fixed-wing aircraft ordered for and by the U.S. Army after the U.S. Air Force was created in 1947. It had a lengthy career in the U.S. military, as well as in other countries. To meet an Italian Army requirement for a short-take-off liaison aircraft, SIAI-Marchetti modified the design of the Cessna Bird Dog, equipped it with a 317hp Allison B15C turboprop, a revised tail unit, and flew the first prototype on 24 May 1969.

Len Fox, a renowned airman and noted test pilot who lives in Sisters Country, purchased the Bird Dog, planning to retrofit it from wheels to floats, but as it is with most airplane schemes "Murphy" got into the picture.

First off, there was the turboprop engine. Sure, they're fine for lots of power and smooth, short-field performance, but not so good for what Fox wanted on the Bird Dog as a float plane. On top of that, when he took it up for a test flight, the turboprop powerplant started making grinding noises, and according to Goodsell, "It was eating itself up…" Fox had to find a place to land quickly, which he did before the turboprop turned itself into an oily piece of scrap metal.

"Len wanted to install a piston engine in it anyway," Goodsell said, with his usual big grin, knowing that another airplane wreck had been avoided when the Bird Dog landed safely. "Besides," he said, "that new piston engine will work a lot better on a float plane."

But "Murphy" stepped in again. When Fox did the "tuft-test" (tufts of yarn are taped to wings, control surface and fuselage to see what's going on with airflow around an aircraft) he noticed that a lot of drag was being created by the huge back window that was installed for observing.

"Gotta get rid of that drag Vern," he said.

If there's something Goodsell is very good at it's making sheet metal do things to fit where it's supposed to, a talent that would make a car body-and-fender person scratch his head. Time and time again, Goodsell has made sheet aluminum go around, fit around, cover up and streamline airplane skin to remarkable shapes.

To provide more lift to the wings necessary for floatplane operations, Goodsell also installed a Sportsman Leading Edge kit on the wings, which required a little more sheet-metal fitting. The Sportsman not only increases aircraft performance but dramatically alters the stall behavior of the aircraft, that allows controllability of the aircraft all the way through stall with reduced altitude loss.

That's why the five-year, scratch-built Spitfire replica Goodsell created in his Sisters shop for Bob Defoe of Arizona is such a great example of his art. When Goodsell first started that project it was a welded box of steel tubing — that at first sight looked like the frame of a bridge.

But within six months the "bridge" turned into a sleek all-metal-covered fuselage that would eventually have a place for the pilot with scale (and original) controls and instruments to fly it. Then, one end was manicured to fit a 1200hp V-12 Allison piston engine to it, and the other end with a vertical tail, rudder, horizontal stabilizers, elevators, and a Goodsell scratch-built tailwheel assembly.

PHOTO BY JIM ANDERSON

Vern Goodsell and the Marchette Bird Dog he's just finished working on.

Next week, Goodsell and Bob Defoe are going to get together in Arizona, where the Spitfire lives, and put the "frosting on the cake: fitting four replica World War II 20 mm cannons on the leading edge of the Spitfire's wings.

Locating original 20 mm cannons is nigh onto impossible, so Goodsell, in his inimitable way, made them. No, not the real thing, but replicas. He used fiberglass to make the fairing that held the recoil springs, and aluminum rods to drill out for the cannons — and then he made a special tool that cut the rifling grooves inside the bore of the "cannons."

The Bird Dog has been carted off to have a piston engine installed and wings fitted. Then Fox — being a test pilot — will take it back into its element to see how everything goes. When it comes time to turn the Bird Dog into a float plane, there's little doubt it will appear again in Goodsell's shop where there'll be the sounds of aluminum being cut, bent and carefully fitted to make another flying dream come true.