

VANCE'S COLUMN

I recently replaced my tachometer. The original one was a very small digital with an optical pickup unit I purchased 10 years ago. It now works intermittently and the company is no longer in business. After checking around for 2 years I decided to buy a UMA unit. They make both digital and analog, both 2" and 3" units, priced from \$60 to \$300. They look nice and appear to be aircraft quality. They are driven by tach generator or mag. I got the tach generator, but it interfered with the B & C offset filter so I returned it for spark plug leads. I have 2 Jeff Rose electronic ignitions and I asked UMA for two pulses per revolution. Jeff's ignition has a tach output and produces a 12V square wave output. This drives a tach perfectly. UMA's phone number is 1-800-842-5578 and they are listed in AC Spruce catalog with pictures. I recommend them, they are homebuilder friendly and will work with you and back their product up.

The next thing to wear out was my DigiMiniFlo fuel flow gauge. The factory said it would be cheaper to buy a new one. I bought it 13 yrs ago for \$800. Now they are \$1300. But there is a cheap solution. In the Central States newsletter, Charles Caldwell has designed and built a digital fuel flow meter. The price is \$335.00. It comes as a kit with a flowscan transducer. If you're all thumbs, assembled and tested is an extra \$75. Charles is building a Defiant (good luck), needs two, couldn't find anything reasonable, so he built his own. Typical homebuilder. I love this industry.

I bought one. The whole thing is 1-1/4" high, 2-1/2" wide, and 3-1/2" long, just fitting in a standard 2-1/4" instrument case, but there is the rub. He doesn't furnish a case. YOU have to come up with it. You can remote the read-out head only, which is 1" x 2" x 1/4" thick.

An electrical engineer friend looked at it and said all the components were of quality. He used sockets to put the 5 micro chips in. We changed a capacitor to a bigger unit to filter out stray signals. I assembled and tested the kit in about 3 hours. If you aren't good at soldering, I advise paying the extra bucks and be done with it. The circuit board is silk-screened with the component layout, and is fairly easy to place and attach them on it. There are 12 pages of instruction including a circuit diagram, but a few more pictures would help. You need to buy a fuse and, in case of remote mounting, some ribbon cable.

Things I wish he had done: My old unit had simultaneous readout of fuel flow and fuel remaining. This unit has one readout and you have to push buttons in sequence to get the data. He doesn't supply dual readouts. The LED readouts are not as bright as the DigiMiniFlo, and brightness is controlled by a switch. The push buttons were a bit confusing at first, but getting better. The product is good value for the money. The unit has everything you basically need in a fuel flow system. I consider fuel flow a necessity in determining if my craft is running correctly and efficiently.

Last item. If you built my electric nose lift from the plans, be sure to secure the electric servo at the pivot end (where the ears mount into the aluminum brackets) with a

stainless steel worm clamp around the outside of the aluminum brackets or drill and tap the ears on the electrical unit and install wide area washers, so the unit cannot escape. I have discovered that the 1/4" thick brackets can twist under certain conditions and allow the servo mechanism to escape, folding the nose gear. Probably at an inopportune time. If you have Steve Wright's lift, it's already done. He uses the wide area washer method.

Have fun! Vance Atkinson COZY N43CZ 1300 hrs tt.

INTERNET

We monitor Cozy_builders@canard.com (the Cozy builders news group on the internet) to learn the kinds of things builders are concerned with, and sometimes we provide technical information on particular subjects. We will review some of those subjects in our newsletter for those builders who don't monitor the news group.

WIVES & AIRPLANE BUILDING

From the Net:

John wrote:

10/28/98

My wife of 2+ years has always been rather un-supportive of the project, but I just found out she is bragging about it to close friends. Time to smell the epoxy again.

Don replied:

10/28/98

I too have a wife who tolerated the guy who was building who knows what in the basement, until I purchased two airline tickets to spend a few days at Oshkosh. After she got nose to nose with Nat's Cozy MK IV, and saw other aircraft that were built by doctors, lawyers, and other professional people, she began to realize that what was happening back home was magic. She has been a staunch advocate ever since. You have to do some marketing.

Paul writes:

10/29/98

The way I have kept peace in my family is two-fold. First, I spoil my wife until she feels guilty if she says anything against building the airplane. This means I give her whatever her little heart desires of my time, love, and money. Secondly, I get her involved in the project, sort of. While I am working on the airplane, she has a table and very comfortable chair at the hanger where she can do her cross stitching. In this way we get to spend time together talking while we both work on our respective projects. I won't say this strategy will work for every couple or any besides my wife and I, just that it works for us. Every relationship is different and each couple/family must work out the balance between individual hobbies, and the rest of life.

Nat replied:

10/29/98

When I decided to build a shop, Shirley said she wanted an art studio the same size as my shop. We added 800 sq. ft. and put a folding partition across the middle so she could paint while I built.

Someone else said:

Why don't you bring her paintings to fly-ins? She might sell more paintings than you sell plans.