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## MILT AND GAIL CONCANNON'S **RADIAL ROCKET**

Homebuilders will simply not be thwarted when it comes to finding a place to build their aircraft. They build them in basements, excavate ramps in their yards, knock down their basement walls and haul out their fuselages and wings. They build them in upper floor apartment buildings, then hire a crane to lower them to street level. They build them on houseboats and barge them to shore.

Then there is Dr. Milt Concannon of Summit, Mississippi who, with his wife, Gail, commuted nearly 1,200 miles each week for over two years to complete their Radial Rocket.

"I own an F-1 Rocket and when I first saw a picture of a Radial Rocket in a magazine, my initial thought was, 'That's really stupid to put a round motor on an F-1 Rocket.' Without anyone standing beside the Radial Rocket in the picture, you really didn't have any perspective on the size of the airplane. I didn't think any more about the plane for the next year - until I happened to be flying through Kansas City one day and remembered that New Century Aerospport was nearby, so I went over to have a look at the Radial Rocket. That was the biggest mistake I've made in years! I saw it, took a ride - and just had to have one! It's a much larger,

more substantial airplane than the F-1 Rocket - and that's not to take anything away from the F-1. It's a beautiful plane. I've flown mine for 500 hours and I'm really going to hate parting with it. In fact, if I don't need the money, I'm probably not going to sell it.

"I'd never worked with fiberglass before and initially it was somewhat intimidating. I didn't have the equipment and the shop to build the Radial Rocket, so I rented some floor space and the use of their tools from Jeff Ackland and Mark Burrow at their New Century, Kansas shop. I cut back on my medical practice to three days a week - Tuesday, Wednesday and Thursday and

sometimes just Wednesday and Thursday. When I got off work on Thursday, Gail and I would fly up to Kansas City, work from six in the morning until I dropped, which was usually 10 or 11 at night. We did that for four days straight, then we'd get back into our F-1 and I'd fly home to work for three days as a cardiologist. We did that for about two years. I didn't want to be one of those guys who spend five to ten years on a project. I wanted to get up in the air and get going.

"Gail was there every day supporting me. She'd expedite parts, get tools and hardware. She made a few of the parts and was immensely helpful in the wiring. She'd go behind me and double check things, which was really helpful. Mark and Jeff were there every day also and would let me know when I screwed up. They guided me along with the fiberglass work and after a few weeks, it became fairly easy. I'm guessing it took about 2,300 to 2,500 hours of work to complete the airplane."

Jeff and Mark used a stock 360 hp Russian M-14P engine in the prototype Radial Rocket, N364R, with its pneumatic starter and pressure carburetor. Milt's research on the engine revealed that pressure carbs are hard to come by and harder still to get



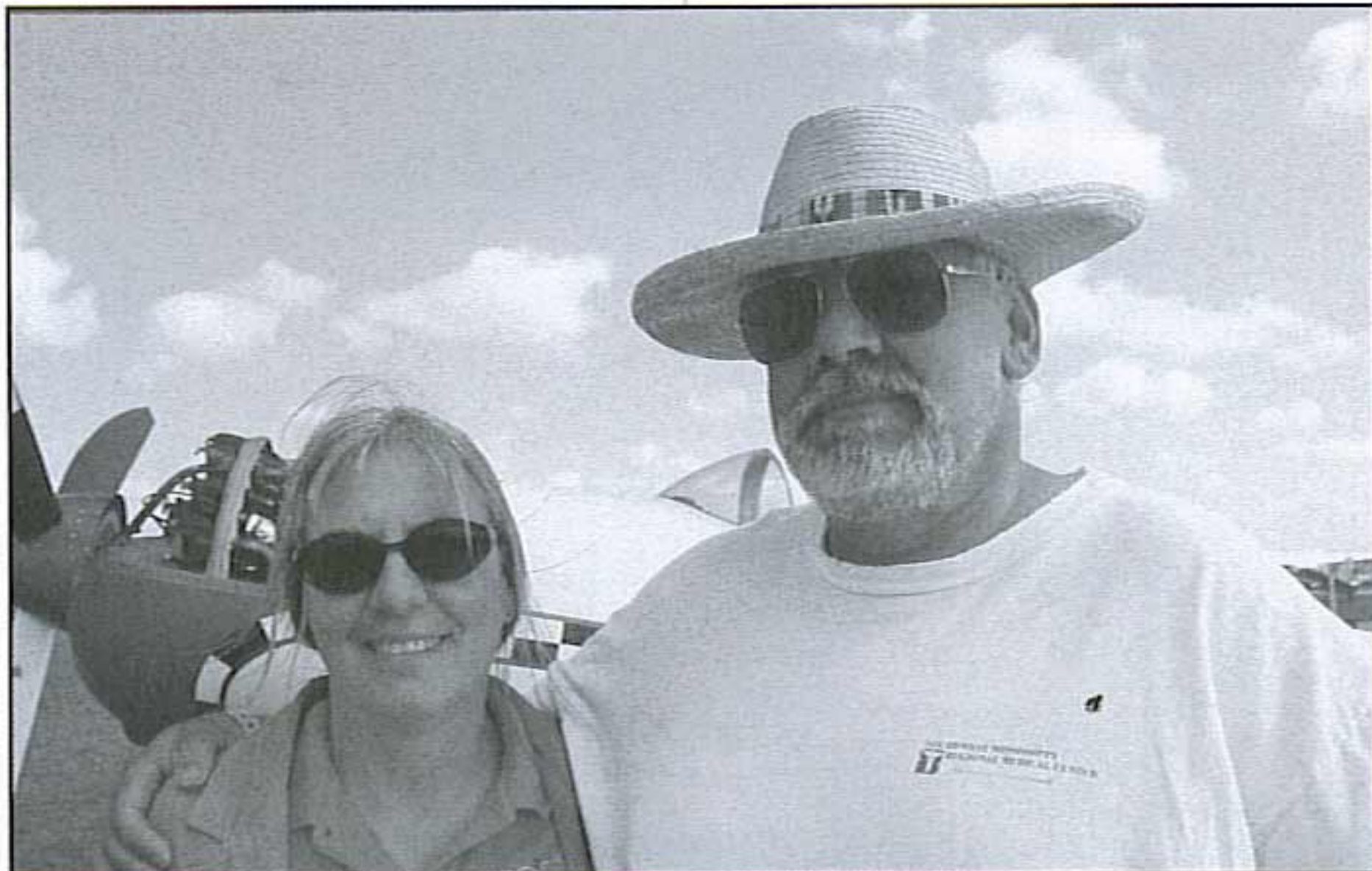
them worked on in the United States, so he opted instead for an Air Flow Performance throttle body. He also switched to an electric starter, a Skytronics alternator and American fittings on the hoses and lines. His version of the M-14 cranks out between 430 and 440 hp, he says, and converts that power to thrust with a 3-blade MT CS prop.

The prototype Radial Rocket had 5:00x5 wheels and tires, but 6:00x6s were planned all along for the kits. Milt wanted to be able to land on grass strips, so he installed the larger wheels.

Dr. Milt is a big guy and one of the things that initially attracted him to the Radial Rocket was its interior room. The front cockpit is 34 in. wide and the rear 'pit spans 30 in. in width. The fuselage tapers back from the firewall, so the front instrument panel is even wider than the front seat back. That allowed plenty of room for an elaborate array of avionics and instrumentation - Blue Mountain Sport G4 and Light G4, Garmin 496, SL30 and GTX 327 units, PMA 7000 audio panel, Electronics International fuel gages and fuel flow indicator and a JPI nine cylinder engine monitor. A Mountain High oxygen system was installed to allow the Concannons to safely surmount the thick summer haze that's so common in the Southeast.

"There were two things I didn't do," Milt says. "I took the airplane down to Aerosmith in Longview, Texas and had them paint it and install the interior. The seat cushions are Temperfoam, with surplus American Airlines gray leather covering them. I also made a couple of modifications. The prototype took its carb intake air in through a scoop on the chin of the cowling. Because my throttle body was larger, I had to put a little bump on my chin and bring the induction air up through the baffling in between the cylinders. Jeff and Mark have since converted their airplane to that configuration. I also put a step on my airplane. A 20-year-old can get up and down off the wing without a step, but I can't. The prototype and probably the kits are also going to get one.

"Before I flew the airplane, I was really worried about fuel consumption versus my F-1 Rocket, but what I found was that for another gallon per hour, I can get an extra 10 to 20 knots of airspeed. It'll climb off the deck at about 4,000 fpm with just one person in it and full fuel, and at 10,000 feet or above, economy cruise is 14.5 gph at 205 knots true. If I want to burn 25 to 28 gph, I can true out at 220 to 230 knots. It's just a great airplane. The kit comes complete except for the engine, hoses and systems. It has all the hardware, all the little pieces you need to put it together and everything fits like it's supposed to. The builders' manual is easy to read. It's written in a conversational style like Jeff and Mark are sitting there telling you how to do things - and there are good pictures as well. We've got a good web site up now for discussion and builder assistance. That's [www.excaliburaviation.com](http://www.excaliburaviation.com).



#### MILT CONCANNON

Milt was born in Chicago in 1949 and became enamored with aviation at an early age.

"We lived not too far from the Midway Airport and I used to hang on the fence and watch the old DC-3s and DC-4s come in. After high school, I spent four years in the Marine Corps. I learned to fly while I was in the service. I soloed in a Cessna 150 and went on to get my Private and Commercial licenses and my Instrument and Instructor's ratings. I wanted to get on with the airlines, but they were laying off instead of hiring when I got out of the Marines.

"Gail and I were married by then, so we moved to Kalamazoo, Michigan where I went to Western Michigan University and got a Bachelors degree in mechanical engineering. I didn't like the cold and snow there, so I took a job with Clark Equipment, the forklift people, in their axle division. I built a new factory for them in Statesville, NC and later transferred to plants in Ken-

#### Gail and Milt Concannon

tucky. That allowed me to get a Masters in business at Xavier University in Cincinnati - and, later, a medical degree at the University of Louisville School of Medicine. I did my residency in Mobile, Alabama and after I finished, I found a good position in Mississippi and we have lived there ever since. Gail and I have known each other since kindergarten. She's the only girl friend I ever had and we've been married 37 years.

"We've really been caught up in the Radial Rocket program. You have to have something to do in retirement that doesn't cost money, so I'm going to try to peddle kits for Jeff and Mark and build up panels and avionics suites for builders who don't want to do that.

"There are about 12 Radial Rocket kits in construction now and two of them are progressing pretty rapidly. I think they will be done within this year, so, hopefully, we'll have three or four of them at Oshkosh in 2008."

