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KR NEWSLETTER

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There are as many opinions on how to fly a KR-1 or -2 as there are pilots! This sage observation was prompted by the several and varied flight reports sent to me by KR pilots after the first flight or two in their KR's. All of the information contained in the flight reports are important to the builders that haven't yet made that memorable first leap into skies in their KR. With that thought in mind I felt it important to print all the flight reports so each potential KR pilot could learn from them. This issue of the KR Newsletter will contain as many flight reports as I can squeeze in... enjoy.

From Joe Gilewski, 43 Davenport Ave., Roseland, NJ 07068....."Enclosed you will find several photos of my KR-2 which I had showed you in Oshkosh recently and I'd like to inform you and the Newsletter readers that I flew for the first time on Aug. 16..last Saturday and on the following day made two more flights. The airplane is a beautiful flying machine, as sensitive as a nervous redhead and it really loves to fly. Im so elated that my feet aren't even touching the ground. After almost five years of diligent work, the expenditure of an absurd amount of money and persistence when things looked grim....was all worth it. It wasn't really necessary to have the kind of instrument panel I have but I had to do it. You will see a gyro horizon, directional gyro, turn and bank transponder, 720 channel navcom, ADF marker beacon and provision for more. Not yet installed is a Narco Nav 122 (glide slope, etc) and I have a Com 120 in mind. You see, I almost killed myself one day in Nov. 1963 at 1 a.m. over Ohio because I accidentally flew into a cloud without a gyro panel. It made a mark on me. The airplane was moved to the airport on July 4, 1980, the airworthiness certificate was issued on July 30..then I went to Oshkosh and next was able to work on the plane on Aug. 9, when I installed the oil seal that Dan Diehl and Bill Elliot suggested to stop the prop leak and added seals to the bypass plate on top of the engine to stop oil leaks. I had spent several hours in taxi tests and as a result beefed up my compression springs on the tailwheel and made numerous minor changes. The RPM on taxi was never allowed to exceed 2000, and the tail never came up. On Aug 16, I was at the airport at daybreak and so were my good friends to help. One more taxi run at 2000 RPM confirmed that everything was OK. On the second run, it occurred to me that all these guys expected me to fly. I wondered if they knew how scared I was. I decided to make one more taxi run at 2500 RPM to see if the tail would come up. I set the throttle at 2500 RPM and the plane really started to go. In about ten seconds the tail came way up and I was looking down that runway at what seemed like more that flying speed. When I saw this picture I knew that I would be safer aloft than running along here, so I pushed the throttle all the way in and did what I thought would ease the plane up. It jumped ten feet high so fast I reacted to drop the nose and of course, dropped it too much. Then, thank God, I steadied my hand and held it at about ten feet for several more seconds to build up speed...then lifted the nose and climbed out. What a feeling! I prayed for the engine to keep running for at least one more minute to give me a good chance at least if it did quit and run it did. I climbed out to 2500' over Caldwell airport and stayed there for about 15 minutes. The engine ran smooth and steady, but the temperature seemed rather high. Cylinder head #3 at 400°, oil at 260°. I decided to come back and land then, throttled back, dropped the nose, and a minute later the temperatures dropped way down. The approach was at 80 MPH over the fence, but the plane stalled and dropped in from about five feet, causing my tail wheel to knock a dent in the bottom of my rudder. No other damage and a very happy time...many congratulations. On my subsequent flights I crossed the fence at 90 MPH and made good (?), better landings. The plane weighs 570 empty and I weigh 230 and when you add 80 pounds of gas, this is a load. Furthermore, the instruments are not calibrated and I don't think my static source in the cabin is a good one, so I must connect the one I have installed

next to the pitot tube per Bill DeFreze. The landing gear has not been retracted yet because I'm so green in this very sensitive airplane that I dare not put my head down yet for fear I'll be upside down when I lift it. Time for that soon. Maybe I'll hook up strings so I don't have to look down. Many thanks to you, Ernie and to designees who spent time with me and shared their experiences. I am especially grateful to the builders who wrote about their first flights because it helped me to realize that I wasn't the only klutz that could overcontrol and put me on my guard against dangerous mistake. It's a beautiful airplane and the experience of building it and flying it for the first time is a significant part of my life. I wouldn't trade it for anything. I hope to bring it to Oshkosh next year."

From Donald Moore, 12138 Hines Ct., Plymouth, MI 48170...."Just a note to tell you of the successful first flight of KR-2 N514AJ. A picture is included. You may remember the picture from Oshkosh. I would like to mention that, thanks to the efforts of Dan Diehl and his father, I was able to get a ride with Dan in his KR-2 the first Sunday of Oshkosh. These are fine people and willing to assist in any way. Although I do not have any performance figures to report at this time, everything seems similar to other KR-2s of my weight. Empty weight is 572 lbs, power 1834cc with full electric, which I built. Prop is a Hegy 52 x 45, Posi carb with carb heat. No flaps and a few very minor modifications from Rand plans. Prior to my KR my experience is, private pilot with less than 200 hrs since 1963. All my experience is with tricycle gear Cessnas. Naturally I was concerned about flying N514AJ. The first thing I did was take five hrs taildragger instruction in a Citabria from a qualified instructor. This got me the basics for taildragging but did not prepare me for the quickness of my KR-2. Next I tethered the tail as suggested in the KR Newsletter and flew the tail for pitch feel. When I started high speed taxis, pitch did not bother me, but did I sweat trying to keep it straight. On the fourth attempt I lost control and the wing tip hit a runway light. Two weeks later after encouragement from my wife I was back on the runway. After about 20 more high speed runs I felt better about ground control. My problem with the high speed taxis was after reducing power I was not prepared for the loss of solid rudder control and not quick enough recognizing the airplanes intentions. Next was to overcome the concern of landing the first time on a 2600 ft. runway. Thus the trip to Oshkosh and the familiarization ride with Dan Diehl. I came back and flew my KR on Aug. 16, 1980. I had a written procedure to follow prior to attempting a first landing. All went as written and the landing was the best I've made. Currently I have seven hrs on N514AJ. Only problem was a collapsed tube on my oil cooler hose attachment which caused an excessive oil leak before I could land. The cause was over torqueing the hose clamp. Be careful on clamp loading aluminum tubing. In summary, I can say the cost of 5 hrs dual instruction and a trip to Oshkosh (I hadn't planned to attend this year), a summer's practice was money and time well spent. Please keep up the good work and keep urging people to take each step slow and fight the urge to rush the first flight. Thanks again for your hard work and dedication."

From Ed Nelson, Box 858, Pinehurst, ID 83850...."My KR-2 was test flown by me on May 13, 1980 and then by a million plus mile pilot and good friend of mine. I'm a very low time pilot with all of my time in tricycle gear 150 and 172. I sold myself the idea of teaching myself to handle my KR as any taildragger which I could rent would be a high wing and slow. So after about three hours of high speed taxi runs, I took it for a ride and it went beautifully. The controls are quick but very easy to handle. This great little plane does flat go where you point the stick and it doesn't take all day to do it. It's a dream come true for me and Ernie, you shared in it with me with help through the Newsletter. I can't even think of much of anything else to carry on a conversation about except my KR and to add to that, our local newspaper covered almost half the front page with a great picture and article. I have some performance figures for you, however some are not perfect, as I intended to get everything down in black and white for you on my next flight but we are now covered with volcanic ash and I don't know when I'll be able to take it up again. To date, I have about three hours of flight and five landings. I made a few changes in the plans which are a lot of the reasons for my 615 pounds empty weight. I sandwiched all of the foam between the spars so I wouldn't lose my airfoil (Ken Rand's flattened out a lot), change the tail wheel to Wag-Aeros 4" and a drop leaf spring which raised the tail about 8" and didn't hurt the handling at all, installed

the positive locking gear pins as in Issue #19, wing tanks and hand operated wobble pump, King 720 channel nav-com, and a Continental A-75 engine. I also installed flaps which make a tremendous difference on landing. Also in reference to Carl Noltze's 20-20 hindsight, I believe he's 100% correct to say that when your KR and you are ready for that first flight, don't try to take it up and set it down again in the middle of the runway. Do take it up, get the feel of it and make a few approaches, then land it on the end of the runway where you have the entire distance to work with it. Here are a few of the figures: Empty weight...615 with oil and battery, Engine...Continental A-75 with Posa carb, Prop...St. Croix 56 x 68, Cruise...150, Top...165-has been let down over 200 but have established a 200 red line, Stalls...45 approximate, and very stable. I will get back to you when I get more figures."

From Ernest Stumpf, 31801 Pudding Creek Rd., Ft. Bragg, CA 95437..."I finally have my KR-2 flying after five years of building. I have about 12 hours on it at the present time. I'm a low-time pilot, about 160 hours with about 120 of that in a VP-1. The KR flies great, it is responsive but as easy to fly in the air as a Piper Cub. The only problem I have is in landing. I use up about 3000' of runway on every landing. Landing pattern about 80 MPH, over the numbers at about 75, practically no float but once the wheels touch it seems to roll forever. Brakes are lousy and I'm afraid to use them until she slows to a walk."

I realize the next letter isn't exactly a flight report but it is from our resident KR-1 race pilot and is a first hand report on flying a KR in the "Oshkosh 500".

#### A ROOKIES'S IMPRESSIONS OF THE "OSHKOSH 500" AIRPLANE RACE

It was a thrill for me just to think about flying in an air race with a group of legendary pilots and their supersharp airplanes. I had never raced in anything, much less an air race. Yet here I was in a homebuilt airplane "running the race" with guys like Steve Wittman.

Steve is a tall, slender, ramrod straight man who is 78 years young. He is as spry and energetic as people half his age. "Bonzo" was the name of his plane, a tiny, yellow Formula 1 racer. Steve has designed several planes, one of which was on display at the EAA Convention, a long sleek and slender racing plane of a very advanced design...for the '30s. And here is this same guy in an over powered hotrod of an airplane racing against me. If I felt a bit in awe, it's understandable. Steve Wittman helped start EAA. The airport at Oshkosh is named after him. He is literally world famous. But he wasn't the only celebrity.

There was Chuck Campbell with a five man (and woman) support team. He is a professional pilot with a winning record and he had the right machine. He was flying another Formula 1 racer, polished to a high sheen with a racing prop that looked like a polished sword.

Chuck's airplane arrived in an enclosed trailer which was bigger than my motor home. He and his crew were tinkering and tuning until the last minute to get the last bit of performance out of the plane. Chuck went on to set two new world records in the C-1-a class (under 1100 pounds gross), the 100 kilometer and the 500 kilometer distances. However, he burned too much fuel to qualify for the Oshkosh 500 prize money.

Then there was Jerry Coughlin, last year's winner, in a blue streak of a Cassut racer that was polished to a mirror brightness. Jerry is not very tall and can't weigh more than 150 pounds. Which is apparently the best size and weight for Formula 1 race pilots, Chuck Campbell was about the same size. Jerry goes around winning races and making friends, a cheerful, likeable, ordinary guy.

There was also Ralph Wise from Agoura, Calif. in a yellow Owl racer that had been tweaked up to maximum efficiency. Ralph helped me to install my wings and we became good friends in the few days we were together. Ralph may have had the fastest racer in the bunch. It was named the Wise Owl.

And there was Dick Rutan of the RAF (Rutan Air Force). He brought along a co-pilot to help him fly the Long Eze. She and his airplane were both beautiful. Dick is a retired Air Force fighter pilot who presently holds a world's record for distance and endurance. He flew the Long Eze almost 5,000 miles nonstop in 33 hours and 33 minutes. Besides being Burt Rutan's brother, he is world famous in his own right.

George Mead was there in his Adventure ship, an original design that looks neat and goes very fast. Unfortunately, his engine swallowed a valve after a lap or two and George was lucky to land without bending anything. He flew one lap at 177.39 mph, which was right up there with the Formula 1 racers.

There were 17 pilots in all, in various and sundry souped up planes including several VariEzes. There was only one plane I figured to beat...a KR-2 from Missoula, Montana piloted by Roger Phillips.

Finally Monday arrived, race day and after I had got myself all psyched up for the race, it was scrubbed on account of thunderstorms. But Tuesday dawned bright and clear and the race was on.

We finally got all the airplanes reweighed and the pilots weighed (to insure that none of them gained any illegal weight during the race) and the airplanes were pushed to the starting line, runway 27 at Fond du Lac Airport.

I was in a sweat, worrying about whether my plane would start. I was worried about cutting the string (a five foot high barrier 1,200 feet from takeoff position). I was worried about my starting position...dead last, so I was a bit nervous...this being my first race and all.

The planes ahead of me all seemed to jump into the sky and streaked for Oshkosh on the first leg, that is all except one VariEze which came back in to land...so as to latch his canopy.

Joe Horvath of Revmaster Aviation was standing by to help me with a jump start, just in case but the engine started right up. I pulled up the the starting line and got a wave off before I was all set, however, I did remember to latch the canopy. I used 40 inches of manifold pressure at 3500 RPM for takeoff and sailed over the barrier with room to spare.

Maybe combat was more exciting during World War II, but not for a long while have I been so hyped up as I was at the start of this race. I went roaring away towards Oshkosh on the first leg of a long ordeal but it was FUN!!

Things seemed good, the engine was smooth at 33 inches, so I decided to fly the race at that setting so as to get some benefit from my turbocharger. At 2900 RPM, I was indicating 170-180 mph. When I passed the pylon at Oshkosh and headed south, I dived to a speed of almost 220 mph. What a supercharged thrill to actually be at Oshkosh in a race with Steve Wittman in my own creation. I was overwhelmed...and somewhere along there on the five minute leg back to Fond du Lac, my brain shorted out.

I began thinking I could do some good in the race when I passed the KR-2 and a VariEze in the first ten minutes. I would have to cut the pylons close and play the wind for all it was worth. That is when I clean forgot about the second pylon on the south side of Fond du Lac Airport.

I went roaring around the west pylon at about 200 mph and did a 4-G turn and headed for Sheboygan. There was only one problem. I should have also gone around the south pylon. It wasn't until the last lap, almost three hours later that I remembered the south pylon. So I was disqualified.

But I didn't run the race for nothing. I had the greatest time buzzing the pylons and skimming over the cornfields to stay down out of the wind. On the last leg from New Holstein to Fond du Lac, the wind was head on about 20-25 knots. The last half of that leg was over Lake Winnebago and I had great fun flattening out about 50 feet above the white caps. It was the only smooth part of the flight.

The low level turbulence was terrible. I bounced around like a kernel of corn in a popcorn popper. Once I bounced my head against the canopy so hard, I thought I had cracked either my head or the canopy. And, it was hot! When I weighed in after the flight, I had lost almost three pounds.

But I ran the race, in my homemade plane and figured it wasn't too bad a performance for a country boy from Orange County, Calif trying to make it into the big time racing game. And I didn't break my plane. Of 17 planes which started, four failed to fly the distance. Ralph Wise lost about half of one prop blade. By doing everything exactly right from that point on, Ralph saved the Wise Owl to race again. First he zoomed the airplane almost straight up and stopped the prop. Then he glided down at a slow air-speed to keep the prop from windmilling. He landed on a narrow country road and had to cross a bridge which cleared his wingtips with only inches to spare. He rolled to a

stop in a farmer's yard just as the farmer was coming out the front door with a beer in his hand. Without a word, he handed the beer to a grateful Ralph Wise.

George Mead blew his engine and the KR-2 lost a prop spinner and had to drop out. However, there were no injuries or serious damage to any of the race planes.

In trying to reach the finish line a bit sooner, I landed on the north-south runway with a direct cross wind. I had a tough time getting my KR-1 to stay on the ground but I finally made it to the finish line and cut the engine. This ended three hours and one minute of high adventure for which I had worked two years and traveled 2,000 miles. It was worth it.

I learned some lessons which I think I can put to use next year. I need to do more testing to figure out the most efficient power settings. I flew the race at about 75% power. I know now that I can make some modifications which cut down on drag. And I need to lose some weight. Who knows, maybe I can give those pros a run for their money next year....now that I am no longer a virgin.....Jim Evans, 16956 Edgewater Lane, Huntington Beach, CA 92647

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"I am writing in regards to the estate of our deceased President of EAA Chapter 534, Cliff Swigart. I am the designee for this chapter & have been asked to help find a buyer for his KR-2 airplane. The plane was built from kits purchased from R/R and the workmanship is excellent. The plane is approx. 90% complete. He has the Revmaster R-2100 D engine & controllable prop assy. If you could help us find a buyer for his widow we would greatly appreciate it. If you have any questions regarding this you may contact me anytime at (904)357-8355 or write to me, Cecil Pentecost, P.O. Box 92, Eustis, FL 32726. Thank you very much."

FOR SALE..unused KR-2 plans pkg. Marital problems forces sale..\$50.00 postage paid. W. Warren, 1844 Park Ave, San Jose, CA 95126 (408)288-8515/(408)289-3016 no collect please.

FOR SALE..KR-2 80% complete, includes Revmaster 2100D, R/R 3 blade prop, most material to finish. Inspection complete up to now..\$5500.00. Ted Nelson, (916) 873-0587.

FOR SALE..KR-1 project 2/3 complete, 36 hp VW, all instruments except altimeter and tack. Needs cowling and wings foamed. Built per plans..\$1700.00. Fred Hosier, 423 Soule Ave, Pleasant Hill, CA 94523 (415)934-5040 (parent's phone)

FOR SALE..KR-2 project 85% complete, all controls, landing gear etc..\$1700.00 Revmaster Engine, 2100cc dual ignition, turbo charged, Maloof prop..\$3000.00. In Southern Calif (805)524-1676.

FOR SALE..KR-1 2 hrs TT, 1600cc Custom Aircraft engine, Genave alpha 200, Joyce headset, pretty blue & white color. Minor damage to landing gear and prop when gear collapsed on landing. Give away price.. \$3400.00 (404)482-1827.

FOR SALE..KR-1 N747DP VW 2100cc 100 hrs. wing tanks, heater, 100 ch radio, alt., battery, one hand gear operation. Great shape, flies beautifully. Don Pearsall, 2039 S. Cherry St., Cornelius, OR 97113 (503)640-3398 \$4100.00 or best offer.

ANOTHER KR CONVERT FOR "REVEREND BILLY".....With my busy schedule, it is not very often that I take the time to write letters but in this case I feel compelled to do so. I'm totally amazed at the energy, help, encouragement and support of the KR designee in my area. Over the last year since I started building my craft I have run into problems, or had questions regarding the plans, or where to get material, how something worked, etc. etc. When he came to my house to look at my plane, there were some problems with my hinges. The next night I was at his house, taking his time, helping me correct these problems. What motivates him? I speak of "Reverend Billy" DeFreze. If all the KR designees are as good, generous, and knowledgeable than they are truly a special breed of cat. I hope you print this Ernest, because I think you can't thank the KR designees enough for their (especially Bill) consistent input of time, money, knowledge to the KR and the homebuilt movement. Rick Todd, 462 Lassen Dr., Martinez, CA 94553.

\* \* \* \* \*

The Newsletter has received several letters in which one designee or another was mentioned because of their willingness to help but Rick's letter is the first written entirely for that purpose. It is fitting that it should have been prompted by the actions of Bill DeFreze, the whole KR Designee idea originated with him.

Should you reach a stalemate in the construction of your KR, call on one of the Designees. They are as near as your phone and willing to help.

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