



COLORADO/WYOMING NEWSLETTER



Volume 15 Number 4 August 2010 2010

I wanted to add some pictures and other stuff last month to the usual "esthetic product", aka as the monthly (more or less, mostly less) newsletter, but it was getting late at night, and I thought I should send out a newsletter that maybe reinforced Prez. Jim Lambert's announcement of our July meeting in Pueblo, Colorado. So...here's an follow-on to the July newsletter, with some pictures that I hope you'll enjoy. - Ed.



Kenny Brown, SWPC Tennessee Chapter, made this Shuttle for his grandson. You might know that Kenny, 13? years ago won a Lindy at Oshkosh for his Tripacer restoration. It still looks about the same...a work of art, just like his grandson's play shuttle. I asked Kenny if he wanted to build me a new Tripacer. - Ed.



Remember that open field where we parked the airplanes at our 1999 Denver SWPC convention? Here 'tis as of a couple weeks ago.

Directional Control

From my friend, Jim Edwards: A&P/IA, my hangar owner, FAA manager, who has investigated MANY accident scenes, 20000 hour+ flyer, F-100 fighter pilot in Vietnam, C-140 driver, etc. etc. His thoughts sound right to me. Let's hear what you-all think. - Ed.

Both the PA-20 and the PA-22/20 are close coupled and (in my opinion) demanding aircraft in directional control. I'm also of the opinion that there is a problem with the PA-22/20 as opposed to the PA-20. The PA-20 was built in Piper's jig. It tracked both in the three point attitude and in the tail up (lift off) attitudes. The main

Officers

Jim Lambert, President 11660 E. 160th, Brighton, CO 80602. 303-659-4938; Cell: 303-941-0612 jdlambert@frii.com

Doug Conger, Vice President 711 Hartman Road, Cortez, CO 81321-4029, 970-565-8394, dconger@q.com

Donna Lambert, Treasurer, 11660 E. 160th, Brighton, CO 80601. 303-659-4938; jdlambert@frii.com

Kent O'Kelly, Editor 2425 Rocky View Road, Castle Rock, CO 80108 303-663-2525; Cell: 720-339-3410; Headwinds@msn.com

Meetings

August 28 11:00 31st Rocky Mountain Regional Fly-in: Rocky Mountain Metropolitan Airport (used to be called Jeffco) at Broomfield, CO Go to www.COSportAviation.org/eea.html for event details. Jim would like to have a group fly-in to the meeting at Jeffco. C'mon. It's time to fly your airplane somewhere, anywhere. And, this event is as good as any. Call Jim to set up a meeting place or arrival time. Or, just show up.

gear wheels must be equidistant from the tail, parallel to the center line and each other and perpendicular to lateral axis in both the tail up and three point attitudes.

I think many of the conversions have built in problems. When the conversion gear attachment fittings are welded to a PA-22 fuselage a problem may be unwittingly welded in. They may, therefore, track in the three point attitude but are off in the take off attitude or vice versa. Remember when you and I went around the runway light in my C-140? (We landed, with me in the left seat. The airplane headed for the left side of the runway, and I ran off the runway around a runway light. Jim was able to save the day. I later got my BFR in the same airplane. - Ed.) I was removing and replacing the floats without checking the toe-in and camber. Goliath (Jim's C-140) turned hard left when going from the three point to tail up attitude. I was subconsciously compensating for it. You weren't ready for it and it caught you. Since that time I have checked the airplane each time I've done a float change. I have gone back and readjusted the gear now a couple of times. At the moment, Goliath is tame but it is capable of having a sneaky, hidden trap for the unwary.

The individual having trouble with his PA-22/20 should first find a Cub, Aeronca 7AC, Scout, Decathlon or C-140 and a competent instructor. Three or four hours or so of landings in a tame tail wheel airplane will eliminate the question of pilot qualification. The question of a competent instructor, however, isn't as easy. Most instructors, licensed since 1970 or so, learned to fly in nose wheel aircraft and may never have learned to correctly fly tail wheel aircraft themselves. The fact that they have managed to fly one without accident themselves, doesn't mean they can analyze a student's performance.

Once the pilot's ability is established we can shift to analyzing the airplane. It is extremely difficult to accurately measure toe in and camber. First the stress on the gear must be removed. The Cessna single engine repair manual calls for placing each main gear on two greased plates. Chip Kell and I were doing an annual on his C-180 the other day. We rolled the airplane onto the plates. The tires were wet and leaving tracks on the concrete. When the airplane stopped on the plates the gear visibly moved. We measured how far the tires were from the tracks. The left wheel had moved inboard by an inch and the right wheel 3 1/2 inches. The wheels had moved fore and aft as well but we didn't have a way of measuring it. I know there is at least a 1 inch difference in distance between the center of the main axels to the tail wheel spring on the 140 that Mel (another friend of mine, an A&P and structural engineer) and I (Jim) are working on in the hanger. I don't know if the difference is designed in to compensate for something or if it is inaccuracy from repair work.

Ideally both main gear will be set at 0 degrees toe in. Trouble starts when there is any toe out. The more toe out the more the airplane becomes directionally unstable. Most manufactures, therefore, allow some tolerance to the toe in side. It is difficult, however, to accurately establish the center line of the airplane. Both wheels may be parallel to each other and still be a degree or so off center line, enough to create a great deal of mischief. All these must be right. Further, the measurements change with the weight of the airplane.

Most measuring systems used in sport builder shops aren't accurate enough. I am guessing that the individual you referred to who "cold bent" his gear and made things worse could neither accurately measure nor accurately control the bending process with standard shop tools.



Although you can't recognize them, here are two of the three attendees at our last chapter meeting at Pueblo, CO. Jim Lambert is flying his getting-better-every-month Piper Cherokee (Warrior) with my grandson, Garrett in the right seat. I (Kent) took the picture from the rear seat. I offered Jim my Tripacer, *Headwinds* plus \$300 for his Warrior. He declined.

Here're two of our best at our southwest regional in Fredericksburg, Texas: Al and Lettie Hoyt. By now you know who they are, so I won't belabor the point.



Bill Spurlock, in the hot tub at our southwest regional gathering in San Antonio, Texas, has the right idea. Cliff and Carole Van Vleet and Kent O'Kelly are wishing that they were in the hot tub with Bill. Deborah O'Kelly took the picture.



History...here's one from 1997...taken during our flight up the Hudson River past the Statue of Liberty. I think this is former President Steve Marsh's Tripacer flying over Ellis Island. We flew a long way that day.



Lady Liberty during our fly-by in 1997. Your editor's Tripacer, *Headwinds* during the same fly-by. No the engine didn't seize...the shutter speed just stopped the prop.

We flew from Lancaster, Pennsylvania to Medford, New Jersey for breakfast, fueled, then set out for New York City. We flew up the Hudson to the Washington Bridge, turned around and flew back down the river, exited west and flew back to Lancaster.

