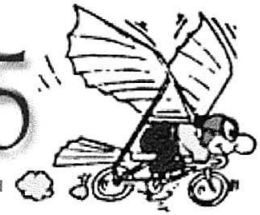




RUNWAY 35



Serving San Antonio Aviation Aficionados with all the Aviation News that's fit for print.

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**WHITE SCARVES, FLY-INS, SUN AND FUN, SWRFI
THE MEMBERSHIP IS BUSY AND BUILDING**

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PHOTOS CONTRIBUTED BY N. WARNER, C. IMKEN,,BSA 517, S. CARLSON	

Help!!

The chapter kitchen is missing a key piece of equipment—the large portable roaster oven.

If you borrowed this unit, please return is ASAP.

As you go through this newsletter, you will note that the membership is very involved with chapter activities, building flying machines, helping one-another, and in general keeping the spirit of EAA at the forefront. We had a very good Young Eagle makeup day on April the 23. A Boys and Girls Club brought 25+ flyers. If you have the time and an aircraft available, this experience is really worth you time and expense. The Young Eagles I flew were excited beyond description. The one 11 year old that I had fly the airplane did so without qualm. She just put her hands on the yoke and steered where I pointed.....I watched her eyes and face....total concentration, and pride. When we landed she walked away with that walk we have all experienced...I did it!!

Great fun.

We had two first flights this month: **Chuck Imken** tested his **7A**, and **Norris Warner** made the first official landing with the **Breezy**. Both builders kept me up to date with e-mails and I will go visit them soon. The Breezy is requiring more extensive trial and error testing of the wing incidence, gear positioning and ballast...

I think when all is said and done this project will really signal a return to the days of Iron Men and Wooden airplanes.

I also want to thank Bob Cabe for his report on Sun and Fun and the tool crib update.

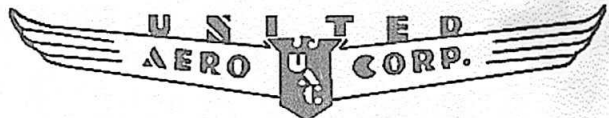
On a personal note, I have moved the Stinson from Zuehl to San G and have most of my "stuff" into the new hangar. The lights are not on, the music is not playing, nothing in the 'fridge yet, but I see a few CPS trucks on the road, so we should make progress towards getting power soon. I am the second one in from the road on the south side. Stop by and give me your ideas for the news-letter.

You will also see we have a new sponsor for the newsletter, Dr. Bill Tarver is helping fund our monthly publication.

Thanks for the help.

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Chuck Imken RV-7A, Test Pilot

Yesterday was a beautiful day with calm winds. After spending all day putting in screws in wing root fairings, wing tips, floor boards, etc.,

I couldn't resist the temptation to see if my just-finished RV-7A could do a fast taxi....but in an instant I became a test pilot. It jumped off the ground in a heartbeat and handled beautifully. It flew hands off with no problems. What a thrill after I busted my fanny over 3 years and 3,000 hours to build it from scratch.

Since it is an experimental airplane with an experimental engine, the FAA says I have to fly it for 40 hours within a 50 mile radius of the airport before I can carry passengers.

Chuck

Editors Note: Chuck is rapidly closing in on the 40 fly off and I expect we will see him and his bird at the SWRFI event. Stop by, say hi and admire the workmanship Jf

A mighty duck lands by Norris Warner

Who says "bugs-in-the-teeth" can't be fun? Well—it is! We flew the "Breezy" in early May, and it is a blast—literally! But, a little background first.

When we ran the weight and balance, we found that the empty Center of Gravity (CG) was aft of the 50% point on the wingchord (50% mean aerodynamic chord—MAC). Of course, when you add the pilot (way up front) the CG goes forward to 39% MAC, and the plans author thinks that might be O.K. (I doubt he really knows where his CG is at!). Anyway, that seemed too far aft for us, so we cast two removable lead weights which can be installed under the pilot's seat. A very light pilot, flying solo, may use both, a 300 pound pilot flying solo neither, but I chose to use one, giving me a CG of 32%.

During taxi tests, we noted that it was impossible to lift the nose gear off of our turf runway until reaching 55 mph. Of course, by then, the airplane was at climb out airspeed, and climb it did! Being still fairly fast on the controls, it was manageable, but not desirable.

My research told me that the nose gear should be able to be lifted off at 80% of stall speed—which I had found in flight to be 35 mph indicated. Surely, something needed to be done. Also, I found engineering data which confirmed that the main gear was too far aft, perhaps by six inches or so. If we could move the main gear forward, the tail down-load during the take-off roll would allow me to rotate much earlier. However, moving the gear was a complicated and costly proposition.

Our next approach was meant to accomplish two things: 1) reduce the back pressure needed on the stick during flight and on the ground, and 2) rotate earlier on the takeoff roll. First, we removed the weight that the elevator itself places on the stick by putting a balance spring in the system. The stick is now neutral on the ground with no real tendency to move nose down or up. Secondly, we moved the leading edge of the stabilizer down (more positive decalage) to enhance the ability of the entire horizontal tail to produce a down load.

These two adjustments helped, but the rotation speed was still too high. Putting our heads together (Jack Ridgway, John Latour and I), we decided to give the wing a more positive angle of attack on the takeoff roll, instead of moving the main gear forward. We did this by lengthening the nose gear leg 4 ½ inches (exactly three, 2 X 4's laid flat!) which changed the sitting angle of attack of the wing nearly three degrees.

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