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IT'S ABOUT TIME I let all of you know about my new address and phone number. Honest, I'm not trying to abscond with all that money you've sent for your newsletter issues. But as you may recall, when my wife and I made the big move from the Midwest a bit over a year ago we didn't have the time to get into a house - so ended up in an apartment. While it was a nice enough place, once the lease was up we found something a bit roomier in the way of your basic mortgaged - up - to - here house. Hence, the new address and phone number listed in the newsletter heading. Please make a note of it; I anticipate being at this address and phone for the next several years. Sure is nice to have a basement in which to do workshop type things again!

Meanwhile, N75PL has been getting semi - regular workouts, time permitting. Actually, it was a hangar queen for a few months during the winter. Just about the time they finally finished the paving so we could get the airplane out of the hangar, the annual inspection came due. What with an owner assisted inspection and working on it only on weekends, another couple months rolled by before we got some air under the tires (as opposed to only having air in them). In fact, our mechanic came up with a good point: He suggested that it might be a good idea to point out all the glitches he found with N75PL during the inspection which needed correction. Nothing too serious, mind you, but nevertheless a total of several items - see below:

1. Short Bolts: Two of the bolts in the control stick base assembly (stabilator/aileron interconnect) and four bolts at the landing gear strut attachment inside the wing were too short; no threads were visible exiting the elastic portion of the lock nut. Also, one of the bolts removed from the landing gear attach area for replacement was a drilled bolt for use with a castellated nut and cotter pin - but had an elastic insert lock nut installed.
2. Stabilator trim torque tube slightly bent. (You had to sight along the tube to see this. It had apparently occurred a good many years ago, before the stabilator adjustment stops had been properly adjusted.)
3. Rudder cables passing too close to electrical wiring and pitot/static lines in tail cone. Rerouted wiring and pitot/static lines.
4. One broken and one loose cowling attach bracket. (One was on the lower left and the other was on the lower right side of the lower cowling, just outboard of the cowl flap in both

cases. This is a recurring problem, albeit a minor one, as I've had to replace a couple of these lower cowling attach brackets before.)

5. Rudder cable pulleys immediately behind baggage compartment and nose wheel steering cable pulleys at front of firewall were misaligned. (Neither set to a serious degree - on the order of some 5 to 10 degrees. The nose wheel pulley misalignment is my fault due to the cables from the different rudder pedal and brake assembly I installed a couple years ago running slightly higher than the old system. The rear pulleys, however, appear to have been installed that way. The only cure is the fabrication of new pulley attach brackets, which the mechanic decided was not worth it for the slight misalignment. Nevertheless, this is something to keep an eye on, to make sure that the cable does not wear through the side of the pulley.)
6. A few cracks in engine cooling baffles at various locations. (A chronic problem with most airplanes)
7. Very light corrosion beginning to form on fuel lines and aileron pushrods in both wings. These were never zinc chromated, as the remainder of the interior of the wing was. Very awkward to get at, but really not too difficult to fix.

To me, the interesting thing about this list is the number of writeups that had been built into the airframe when it was originally built fourteen years ago. Although I haven't intentionally tried to have a different mechanic inspect N75PL each annual, it has worked out that way to a great extent. I have mixed emotions about this: In one respect it might be nice to be able to work with the same mechanic year after year, as he would be better able to see any problems that were developing over a long period of time. On the other hand, there may be a tendency for anyone to get complacent seeing and doing the same thing over and over, and perhaps miss something due to the "assume" factor - it looked O.K. last year and the year before that, so it must be O.K. now. As we all know, it ain't necessarily so.

The other side of the coin is the side that has worked out for me, and that is having a different mechanic inspect the airplane almost every annual. It seems that every mechanic has his own little pet peeves, things on which he will concentrate. This way, what one mechanic might miss one year, a different mechanic may spot the next year - as occurred with the short bolts noted above. Those of you who have gotten to know me (and more particularly, N75PL) through the newsletter know that I didn't build the airplane. What it all comes out to is that we're all human and that in any project as complex as an airplane there will almost always be some inadvertent imperfections installed - and because mechanics are human too, they might also miss those imperfections. The moral of the story is to build that PL (or whatever other project) as well as you possibly can, because there are no guarantees that the little imperfection you

might have installed is not a critical one. And it never hurts to have another set of eyes (and another, and another . . .) look over your work.

So now that N75PL is back to being the McCombs flying carpet again, I have to tell you that it's just about to go back in the shop again. This time around it's for the purpose of putting on some weight, in the form of a stack of radio gear. With N75PL based only about 5 (yes, that's correct - only five!) miles from Andrews Air Force Base, the time is fast approaching when I'll either fly with a transponder and encoder - or I won't fly at all according to the Feds. I have all the radio gear, so now it's a matter of getting the avionics people all lined up to do the work. You can likely look forward to a report in the next issue.

One thing I've been meaning to do for quite some time is to include a "fill in the blanks" card in the newsletter, to get some feedback from all of you as to how your FL project might be going or flying, as the case may be. I squeezed about as much as I could onto a standard size card for int'l mailing, and the cards are pre-addressed back to me and pre-stamped to make it as easy as possible on you folks. When I get back a fair collection of these, I'll tabulate the results for the next newsletter - how many have what engine, avionics, etc., etc. It will be interesting to see how Paz's design has been changed over the years; I suspect that the biggest result will be that very few FL-1s or -2s have C-90 or O-200 engines installed anymore, and that the avionics in the typical FL are a bit more advanced than was possible when the design was young. Anyway, to give you some idea how this might go I've included a sample with N75PL below:

Jack & Anne McCombs	PROJECT: FL-1 or (FL-2)
2510 Crest Avenue	(circle one)
Cheverly, MD 20785	PLANS SERIAL #113
IF FLYING, REGISTRATION # N75PL	PERCENT COMPLETE 100%
IF FLYING, TOTAL HOURS 352.2	BUILDING TIME, HRS. 3000
PERFORMANCE: CLIMB RATE 800 ft/min, S.L.	(approx.)
MAX CRUISE, 75% POWER 110 kts/127 mph	ENGINE TYPE O-235 C1B
AVIONICS TYPE: Com Radio Narco Com 810	PROPELLER Sensenich M76
ADF None	AM2-48
Transponder AT-150	Nav Radio Narco Nav 122
Encoder ACK	Loran Apollo612
SPECIAL FEATURES (wheel fairings, other equip., etc.)	Dual brakes
(Cessna 150), Grumman American Seats, Fuel Tanks Modified=30 gal.	
REMARKS Still planning on that O-320 and gear fairings someday -	

Well, now you know all about our PL, anyway. And don't feel that you have to type in the info as I did in my sample above; it was just easier for me to do it while it was still in the computer this way. By the way, as I write this, the radio gear you see listed for our PL is being installed. The radio trays have been wired up with the proper wiring harnesses and a support bracket fabricated for the trays, but I still have a way to go to install two more antennas and circuit breakers for the above radios. As I write this, there are exactly two more weeks till Oshkosh convention, so I may not have everything done by then. At least I can connect up the new com. radio, transponder and encoder to the existing antennas, previously installed, even if I have to do without the luxury of the loran for the trip.

Meanwhile, I have some mail to respond to, so let's go over the correspondence which has accumulated since the last issue:

JIM NIESWONGER, McFARLAND AIRCRAFT CO., Post Office Box 1353, Spring Valley, CA 92077, phone 619-466-8914 has passed along a new PL-2 parts and price list. Jim says, "I am enclosing a price list for PL-2 parts hoping nobody needs any. That way I can work on mine." The list appears to be a pretty complete listing of the metal parts needed, with only a few of the simpler brackets and etc. omitted. Parts are alodined and zinc chromate primed. I won't go into prices here, as they have no doubt changed somewhat since this catalog was printed in 1986. I wish I had room to include the list in the newsletter, but it has more pages than the newsletter does! If you'd like one of your very own, contact Jim at the above address and/or phone no. If you happen to be in southern Cal. and need to build your fuselage, you might talk to Jim about using his jig.

Back in May, **CECIL MICK** of Paducah, KY dropped me a line to update us all on his PL-2 project. This is serial # 75, and has been through a few different owners since the original plans purchase. Fuselage is completed, although it needs a fair amount of rework, as most projects do which have passed from hand to hand to . . . etc. Control surfaces and wing are all completed except the stabilator tab. sounds like it's about 90% done, only 50% left to go. Cecil did raise one question, however: Seems that his stabilator tab has provision for only three hinge sections, rather than the five called for on the plans. Cecil's hinges are each a bit longer, with an extra section each - but the longest section is on the tab rather than the stabilator, as called for on the plans. (If I erred in describing this, Cecil, please let me know and I'll correct it next issue, after everyone else has forgotten about it.) Actually, I'm trying to picture the tab hinges on N75PL, and I come up with five hinges of three sections each, as called out on the plans. How about anyone else out there? Cecil also made it to Sun & Fun this spring, but his luck runs just like mine - just when you need some specific info, naturally none of that aircraft type show up. Fear not; here's hoping there will be at least one PL-2 at OSH this August!

Other questions: Yes, one of the little tell tale differ-

ences between the PL-1 and -2 is the balanced rudder on the -1. Although I suppose it's possible that one could encounter rudder flutter with the unbalanced rudder of the -2, I suspect it's pretty unlikely what with the cables being connected to the nose wheel steering and shimmy dampener through the rudder pedals. I would think that if the cables are adjusted up as they should be, there would be no problem; at least, I've never heard of a problem in that regard.

Canopy clearance at aft edge: The canopy on N75PL fits pretty nicely all around, with very little clearance at the upper aft edge, maybe on the order of 1/8" or so. I installed a small tubular vinyl covered foam seal along the aft edge of the cockpit for the canopy frame to bear against when shut, to keep out any drafts back there. The lip of this seal, the portion which is cemented in place, is attached to the former over the baggage compartment rather than to the fuselage; the clearance is tight enough that it would be difficult to close the canopy if the seal were between the canopy frame and fuselage. This way, the canopy frame rides up against the seal and the seal can flex forward as the canopy moves forward, rather than being between canopy frame and fuselage. However, there must be a way to eliminate some of the larger gap you have, Cecil - 1/2" or so is a bit much. To lower the canopy frame that much, approx. 1/2" would have to be cut away on each side of the frame - which wouldn't leave much material. Anyone have any ideas out there?

Cecil also passed along a report on a ground looped PL-4 project for sale: Damage to right wing root skin and lower longeron, landing gear bulkhead rebuilt. Other minor damage also. No engine or instruments, some other components missing, but has plans, books and tooling. Will deliver for \$900.00 and gas, so the note says. If interested, contact Norm Partridge, 6349 Gertrude St., Winton, CA 95388. Phone 209-358-2626.

ED BOOTHE, Biloxi, MS, reports that his wet wing PL-2 is doing just fine, no leaks or problems at all. Ed has certainly provided a fine test for his work, that's for sure, since he is doing aerobatics with the airplane too. If anything will make a wet wing leak, it should be aerobatics what with the bending, flexing, etc. Ed is also building a new stabilator for the airplane, with an .040 material thickness spar and hinges machined from aluminum block - as well as bonding all parts together, I assume in addition to the standard rivets. Well, if there were any worries about the strength of the old stabilator, that should certainly alleviate them. Maybe a report on how it works for Sport Aviation, as with your wing tanks? Or at least for the PL newsletter, so we can "scoop" those other publications!

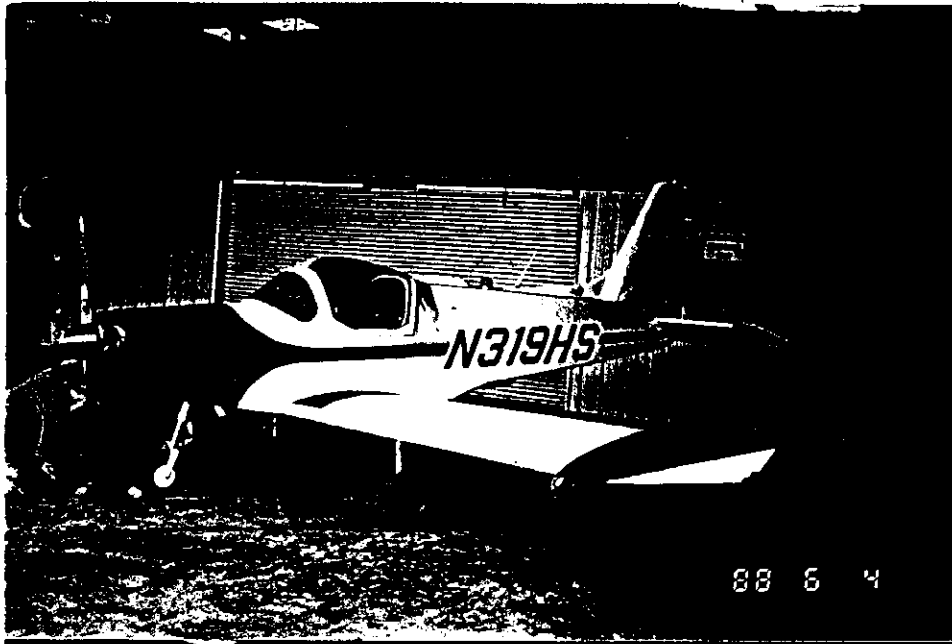
BOB BRADLEY of Marblehead, MA wrote back in March with some notes on the local meeting the Feds hosted for the Boston TCA. As usual with these things, it was more nearly reminiscent of a shotgun wedding than a "user input meeting." The FAA primarily spent the evening letting everyone know that they were subject to fines in the \$10,000 range and UP (!) if they fly through an area

requiring a transponder and the transponder is not working - EVEN IF YOU THOUGHT IT WAS WORKING. The feds, in their infinite wisdom, suggested that we purchase transponders with operational flags, like VOR heads. Sure. Right. If any of you ever see one with that feature, let me know, will you? I've never heard of one intended for light civil aircraft, although I'll admit that maybe the military might have them. (Your tax dollars at work.) Of course, one can maintain constant contact with ATC for altitude readout info - it only took Bob about 40 tries over 4 days to get a response to an altitude check query. Hopefully, things will smooth out a bit over this initial roughness in expanding the radar net, but for now, at least in some parts of the country, this is what we're up against.

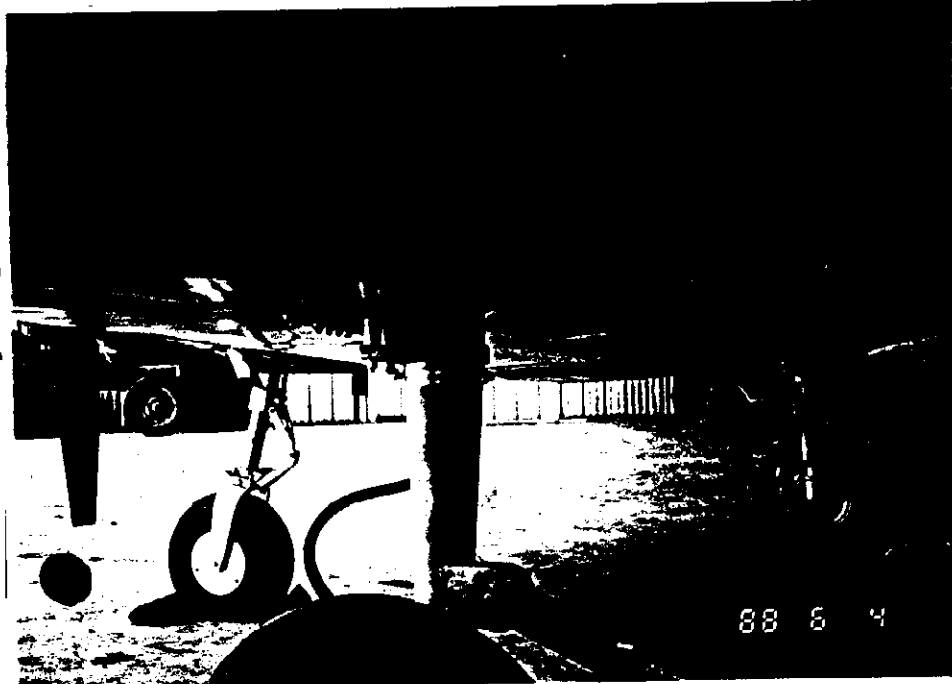
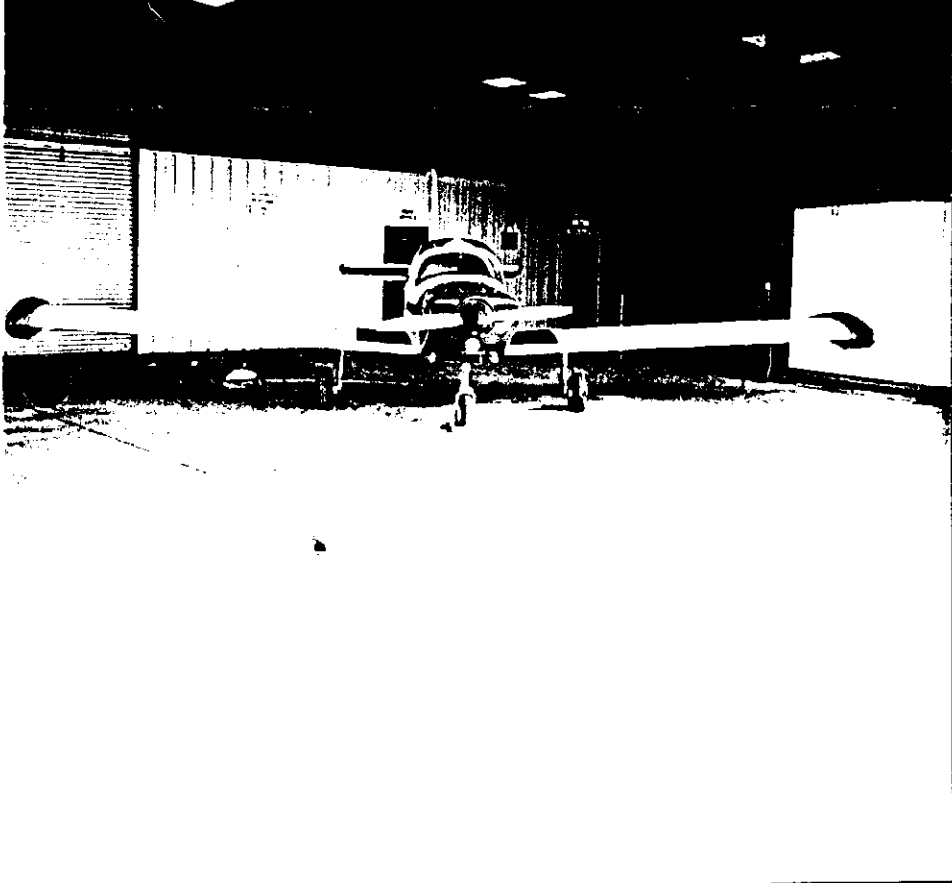
Further news on this front: The Feds are issuing more - or - less blanket waivers for those of us who are still operating within the 30 NM TCA veil. Those waivers are valid for up to 90 days, and from what I understand are valid wherever you fly, not just out of your home airport. Furthermore, I just received word at the Chapter 4 EAA meeting of July 14th that the FAA is suspending the 30 NM transponder requirements for the Chicago TCA from (approx.) July 23 through Aug. 8. Don't quote me on this, as it was a verbal announcement, and I may not have the dates quite right. Transponders and mode C will still be required in the TCA itself, as before, but at least one can follow the shoreline of the lake without a transponder this way. Check with your local Feds and/or Flight Service for further info.

Waivers or not, you guys had better plan on that transponder installation in your PL now. I was very fortunate to find an avionics man to help me out with the installation at this time. Just about every shop in the area is booked up with transponder and/or encoder installations up to eight weeks in advance. Of course, with the Feds setting this up so it came due in the middle of summer, just before the EAA convention, that screwed things up even worse, and when do all the avionics people take their vacations? Right, same time the rest of us do. Hence, the last minute waivers and rule suspensions which, of course, occur too late to be published for us to find out about them. Well, here's the word.

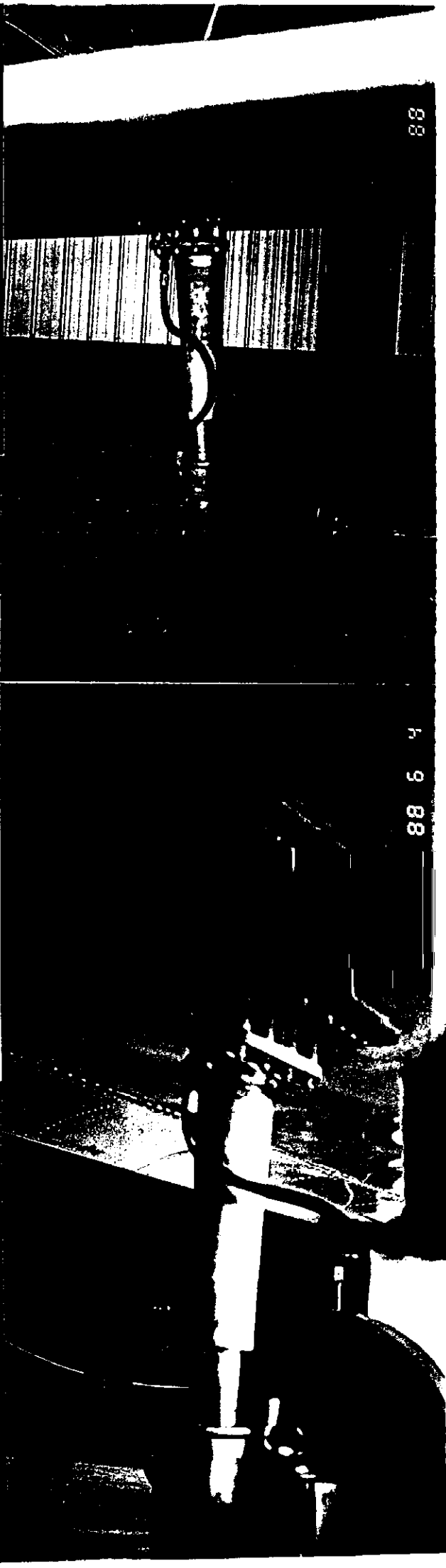
DR. JOHN BARTHELMESS of Tallahassee, FL, previous owner of N319HS built by early PL newsletter editor Harold Sponaugle, was kind enough to send some pictures along of the PL with the Piper Cherokee main gear modification - see page 7. Although this gear is somewhat draggier than standard PL gear and makes it somewhat more difficult to clamber in and out of the airplane, it certainly is hell for stout. However, as noted in the last issue, it appears that Dr. John's gear breakage problems were caused by the welded gear scissors coming unglued and allowing the tire to pivot sideways - and naturally the sideways load would break the gear off on the landing. Considering the essentially stock PL gear was used on the Ryson Cloudster motorglider, which is considerably heavier than a PL, and passed FAA certification drop tests, I'm not going to worry about my stock PL landing gear.



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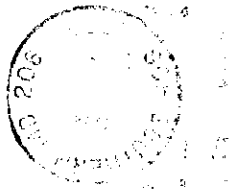
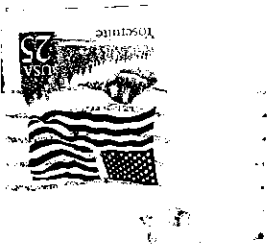
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Well, there you have it - this issue is a tad smaller than my customary 5 sheet - 9 written/photographed/drafted pages, due to the PL info card enclosed. I hope to hear from all of you in the near future, and I look forward to publishing all that neat data on your PLs in a near future newsletter. I plan on taking pictures of all the PLs I encounter at OSH for the next issue, which I'll try to get out as soon as possible after the Big Show is over. After that point, I'm probably going to be pretty busy studying at every possible moment for a career advancement until late October - so we may have another dry spell in there, newsletterwise. If you make it to OSH, look for N75PL!

-- Jack McCombs, FL Newsletter Editor



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