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Aircraft Designer:
Ladislao Fazmany
PO Box B0051
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Editor:
Jack McCombs
1113 Falmer Rd. #2
Ft. Washington, MD 20744
Phone 301-248-5515

HAVING THOUGHT UP A FEW THINGS for this issue, and having received a few goodies from you kind folks out there to install in this issue, here I am at the keyboard for another go at it. I'll have you know that I probably wouldn't be sitting down at the XT now, except for the fact that the weather appears to be partly to mostly scuzzy so I'm not planning on any flying for the day. But often as not, N75PL has been getting its weekly exercise, along with the flight crew. The flights usually aren't very long, but we've been getting a steady supply, discovering all the interesting restaurants on or near airports within 100 miles or so. Places like Tangier Island, out in the middle of Chesapeake Bay - It's a bit of a challenging flight, detouring around the various restricted areas, but well worth it since the island is known to have one of the best seafood restaurants on the east coast. Yes, there are a lot of interesting places to go and things to do with an airplane on the east coast.

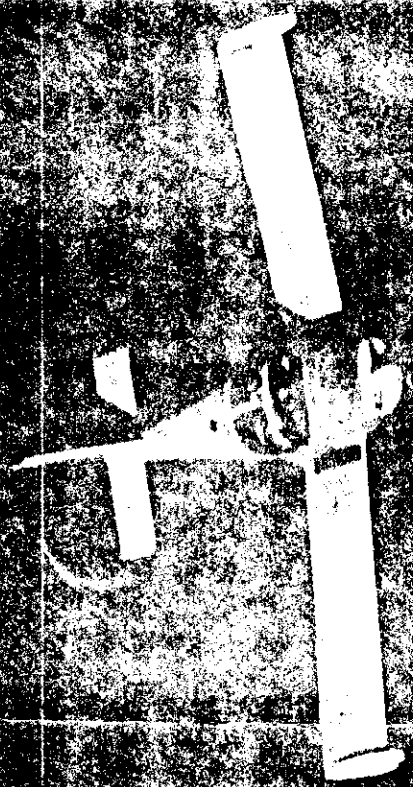
Meanwhile, I'm once again engaged in gainful employment, so I have something to do while my wife is at work. Matter of fact, the something I'm doing generally involves sitting down at a keyboard very similar to the one on which this newsletter is being cranked out. I am currently working for a patent firm, which involves searches of records at the Patent and Trademark Office for clients, drafting of the text for patent applications, and several other duties involving (more or less) technical writing and research. This is most interesting work, and I feel most fortunate that I happened along at the right time with the right qualifications - a technical background, IBM PC experience, and the fact that my immediate supervisor is also a pilot probably didn't hurt a bit! Most of our work is for smaller clients, "Ma and Pa" type inventions, which really makes it much more interesting than an office which might specialize in some particular field. No, unfortunately I can't get you a deal on a patent application fee!

The best laid plans etc. . . . Actually, I started the above quite some time ago, but I seemed to have misplaced my "round tuit" until now - "now" being Christmas day as I write this. Anyway, let's continue, N75PL has been held captive in the hangar for the last month or so, through no fault of its (or our) own. Seems that our airport received a fresh paving job about that time. Both runways were widened and repaved (I don't think the secondary runway - 13-31 - had been repaved since it was built in WWII.) and even the taxiways between the hangars were repaved. The crew did a beautiful job, too, except for one

little flaw: The new paving is about three inches higher than the old, and although they feathered the edge to form a ramp in front of most of the hangars, they didn't do so with all of them. Guess whose hangar they skipped, among others. Yep, you got it right the first time. With a three inch lip at the edge of the taxiway and 5:00x5 wheels and tires, it's like trying to pull the airplane over a set of chocks; we just can't get it onto the taxiway as things currently stand. Had I known it was going to drag on this long, I would have made a ramp or some such thing myself - but every week I keep hearing how they're going to fix it next week. I have now talked to everyone involved, including the absentee owner of the field, and have received assurances from all that the matter will be fixed within the next week. The owner seems quite sincere, so we'll see. If nothing has been done by the first of the year, I'll have someone make a ramp and deduct it from the hangar rent. If such a thing ever happens to you, it might help to throw out such terms as "denial of access" and "breach of implied warranty." It also probably helps if, when a party returns your call, the phone is answered with the name of a law office. This seems to hold their attention more than usual. I'm not a lawyer, but they don't need to know that!

Meanwhile, we did get in a few good flights this fall, before the paving project. Among other trips, we made a visit to First Flight Airport at Kitty Hawk, NC the last weekend in October. Wife Anne's birthday was that weekend, and she gets somewhat agitated if we don't fly somewhere at least for her birthday. I think she's addicted to flying - but then, aren't we all? And by the way, although ground transportation isn't the greatest in small communities like that, there are motels and restaurants within easy walking distance if you travel light, and some will provide transportation from airport or monument headquarters to destination. If you can get away into October, things are pretty quiet and there will be no problem finding a place to stay. I can't recommend attempting this over, say, 4th of July weekend without reservations, however.

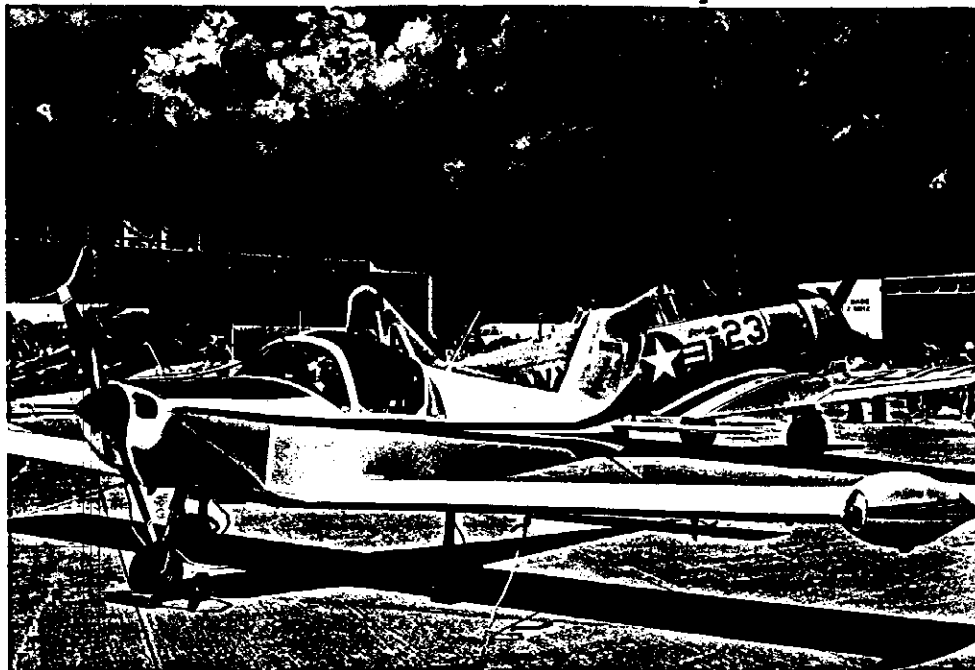
One of Anne's coworkers, **Bob McLean**, also has an airplane almost as good as a PL-2, a Globe Swift! He is also quite an accomplished photographer; you are seeing the results of his skills on the next two pages, in fact. As we headed on our way on the above trip, Bob and safety pilot maneuvered the Swift over, under, around, in back of, and in front of N75PL and came up with some really outstanding photographs of the airplane in flight. The toughest job I had was later, when I had to decide which shots were best! I had him blow up a couple to 8" x 10" size, as you can see. As I write this, I have yet to attempt to photocopy these shots, but they look as though they should come out reasonably well. Matter of fact, they are actually going to go up on a couple walls - one at home, and one in my office. I'll be doing this again some time, when we get N75PL repainted some day. I just wish I could copy these in color for the newsletter; the fall colors are really spectacular in the overhead shot.





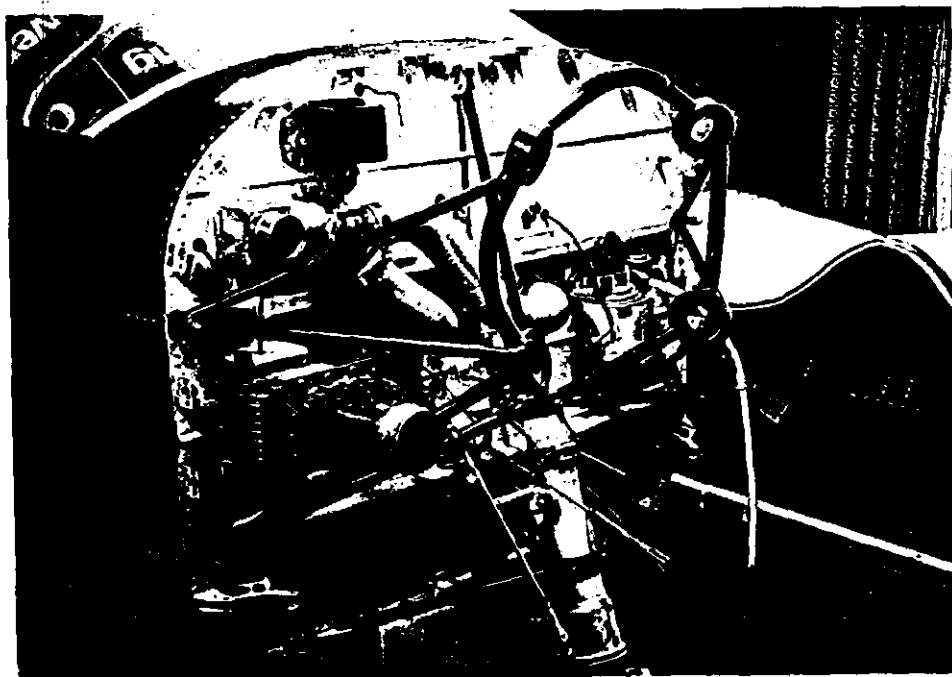
Meanwhile, It has been brought to my attention that I have accumulated a 1/4" thick stack of correspondence to catch up on here. I shall plunge headlong into it immediately below, in approximate chronological order:

First of all, way back in late May, just after I had put together and mailed issue 82 (isn't that always the way it works?) I received a very nice letter from **JIM LACINA** who enclosed a picture of his PL-2, N85VB in attendance at the NAS Glenview annual show - see below. N85VB was constructed from plan set # 57, purchased in 1964, and completed in late '85 - so don't feel too badly if it takes you a while to finish that PL you're working on, guys. After all, quality takes time. N85VB has some history behind that N number, too. It seems that Jim L. was stationed aboard the USS Shangri-La during WWII, flying SB2C dive bombers with (what else) VB85 squadron! Seems that I've heard of others who have used their old squadron designation with their new airplane; a nice touch. With some of us, however, it wouldn't work so successfully. I can't see naming N75PL after an Army infantry company equipped with armored personnel carriers, for example.



As you can see, N85VB came out pretty nicely. It's equipped with a Continental C-90, so average fuel burn comes out at about 4.5 gal./hr., or close to 5.5 hours endurance, no reserve. The airplane flies hands off, Jim says, with equal fuel load in each tank - just as it should be. N85VB is VFR only, with a "just in case" turn & bank. As of 109 hours in May of '88, Jim had experienced no problems other than a couple engine gauges prone to telling fibs - can't blame that on the aircraft design. Here's hoping to see Jim and N85VB at OSH '89 Convention, along with the rest of you loyal PL persons.

DUANE SEYMOUR now has his PL-2 out of the basement (like toothpaste from a tube, he sez; some very careful measurements were made in the early stages) and the airplane is now at a nearby airport for final assembly and painting. You know, the other 50% of the work you need to do when it's 90% finished. Duane anticipates first flight sometime next summer at the earliest - but as we all know, such things have a way of slipping (just like this newsletter), so I won't hold you to that date, Duane. Just keep us posted. You know, I still find it amazing that after all the years that have passed since the PL was a new design, there are still a few a year being completed and flown. Of course, I only hear about one or two, but there are undoubtedly others out there which I never hear about. That's a classic design for you!



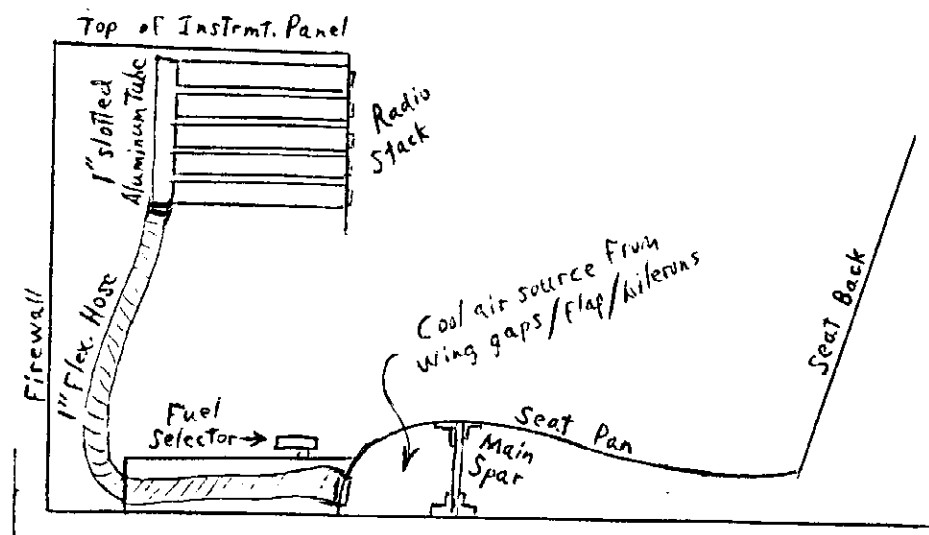
The picture you see on this page is of Duane's firewall, engine mount and accessories. He has the engine, but (as of the last I heard, back in July) is/was looking for a constant speed prop and governor for his Lyc O-320 D1A (160 hp.). As you can see, he has the dynafocal mount all ready to go, and has a few other goodies installed on the firewall, such as the remotely installed oil filter, complete with adapter from J. C. Whitney (see, they sell airplane parts, too - but maybe we'd better not tell them; they might get excited about it), oil cooler, etc. Looks like a nice, tidy installation thus far. Keep plugging away, Duane; as I have told so many other builders, who will no doubt verify this themselves now, it's well worth all the work.

Dr. John Barthelmess, previous owner of the FL-1 originally built by Howard Sponaugle, sent along some comments regarding his two landing gear strut failures commented on in earlier newsletters. To recap, the failures on Dr. John B's airplane, N319HS, consisted of the right main gear strut breaking at or near the attach bracket to the spar - twice! I commented that the only other failures I was aware of in FL landing gear were those of the welded sheet type scissors breaking and allowing the wheel and tire to pivot in flight, thereby rapidly gaining the pilot's attention on landing rollout. Or slideout, as the case may be. Well, the comments noted above clarified the cause of the strut failures: Apparently the very problem I was aware of, that of the scissors failure, occurred **first**, thereby allowing the wheel/tire to pivot around as noted above. Landing on a relatively rough grass strip with the wheel cocked sideways was sufficient to break the strut; twice in three landings, in fact. So fear not, FL people; your landing gear struts are fine, in any form of normal operations, and that includes soft or rough field operations so long as the pilot does it right. But **CHECK THOSE WELDED GEAR SCISSORS!!** After the various stories I've heard from different sources concerning the welded scissors breaking, I believe I'd change them if I had them on my airplane. Fortunately, N75PL has the machined aluminum scissors, and I have had no problems with them. Come to think of it, though, it might not be a bad idea to have a dye penetrant check done on them at annual inspection - and that would go for either type of gear scissors.

The bottom line to all this that N319HS now has Cherokee 140 gear, which should certainly be durable. And the airplane has changed hands yet again, the new owner being **MIKE WILSON** of College Park, GA. A shame a person had to go through all that - but here's hoping all the bugs have been removed from N319HS and that Mike has a trustworthy FL, as the majority seem to be. Mike also owns an L-5, and gave up his EAA Biplane in order to get a FL. Good move, Mike, since you can fly around in a FL with the canopy too, if you so desire, and a FL is also capable of some limited aerobatics as is the EAA Biplane, and will get in and out of fields pretty close to the minimum size needed for the Biplane - and you can take a friend at the same time. Congratulations!

Dave Panton, builder and pilot of C-GQUK, passed along some valuable information in a letter some several months ago. More and more FLs are being equipped with a stack of radio gear, it seems. (So is N75PL; more on that next newsletter.) One problem with avionics is that it is generally confined to a comparatively small volume, and solid state microelectronics notwithstanding, when you put energy through something like an aircraft radio, it generates heat as a byproduct. Since the space available for radios, etc. on a FL-2 is only about 10.25" high - and on mine, 1.25" of that is taken up by the circuit breaker/switch panel - only about 9.00" is available to stuff in an audio panel, #1 and #2 nav/coms, ADF, transponder, and (maybe) a loran. Good luck. Anyway, all this fancy expensive electrical resistance is putting out a surprising amount of heat and must be cooled properly if one wishes to keep it from becoming even more expensive. Dave

came up with an elegant solution for this cooling problem for his avionics - see the sketch below:



Actually, this is slightly different than Dave's installation; he indicates the tube coming out of the front top of the fuel selector box rather than the front end, and feeding an aluminum tube distributor on the side of the radio stack rather than at the front (closest to the firewall) end of the stack. Suit yourself; obviously the routing of the hose is unimportant, so long as it delivers cool air to the radio stack in sufficient quantity to keep the stack from overheating. Dave had had no problems with this installation for several years (the airplane just celebrated its 10th birthday in November of '88 - congratulations!) but recently Dave had some radio overheating problems, particularly with his Narco Com 120. After sorting all this out, he realized that he had blocked almost all of his cool air source for the radios when he sealed his flap and aileron gaps! It seems that the pressures around the wing result in a net pressurization of the air within the wings relative to the cockpit, and the source for the air was the gaps where flaps and ailerons meet the wing. When those gaps were sealed, no more airflow for the radio stack. I for one really appreciate this timely tip, as I am about to install a whole bunch of electron processors in the panel of N75PL - and a couple years ago I installed gap seals. Actually those gap seals are not too effective now and need refurbishing, but I may remove them altogether to install a system similar to Dave's.

On the other hand, how does it work on the ground? I would assume that there should be no real problem since (1) it takes a while for the radios to reach a critical temperature and (2) the transponder, which is the real heat generator of the stack, is typically in standby mode on the ground and therefore not transmitting (and heating up). Dave mentioned that his heating problem showed up in his com radio rather than the transponder, but the general location of nav/coms is toward the top of the stack,

and heat rises. Dave also mentioned that he removed one radio from the stack for some inflight testing, and found that the transponder was almost too hot to touch. The transponder would likely be the biggest heat generator, as it is transmitting a reply nearly continuously in areas where there is a lot of radar coverage. However, due to the old "heat rises" principle, the problem might very well manifest itself at the top of the stack first - especially having that nice air delivery tube to use to rise to the top of the stack. So why install the biggest heat generator on the bottom of the stack? Don't ask me; maybe way back in the "good old days" when radios had tubes it didn't make much difference and custom has prevailed since. Anyway, some form of cooling system for the radios is definitely a good idea.

Dave, and in a later letter so did subscriber **Jacque Fletcher**, also passed the word that **Will Gullachsen** of British Columbia, Canada now has his PL-2 flying - as of way back last March 22, in fact. Will has not been a subscriber for quite a while (too busy building to read?) but it's nice to hear through the grapevine that yet another PL is flying. Will's airplane was pretty spartan initially, as he mainly wanted to get it flying first. It's equipped with a Lyc. O-320, 150 hp, and very early in flight testing was indicating 140+ mph on his yet to be calibrated airspeed indicator. This sounds pretty realistic to me, as the airplane is equipped with the long nose bowl and a 3.5" prop extension. I look forward to seeing the airplane at Oshkosh, along with many others.

Cecil Mick of Paducah, KY now has his hands on an unfinished PL project which has been through a few different hands. He also informs me that he knows of a PL-2 project for sale. This letter was written between Christmas and New Years, so the info may be a bit out of date, but here it is for what it's worth: **Bud Baker, RFD 4, Box 270, Slatington, PA 18080. Phone 215-767-4161.** Cecil indicates that he has seen pictures of the workmanship, and it appears outstanding to him; in fact, Cecil sez he would have bought it if it had been closer to home.

Speaking of PLs under construction (or flying, for that matter) I hope all of you are aware of **Aeroquip Co's.** recall on some of their Aeroquip 601 hose installed between April, '84 and May, '88. I don't have the room to include the entire notice here, but if you have hose purchased and/or installed during this period, get in touch with Aeroquip, 300 South East Ave., Jackson, MI 49203-1972. Phone 517-787-8121.

Lee Conlan, Homebuilders Aircraft Associates, 7858 Arnett St., Downey, CA 90241 (phone 213-869-0536) has sent along a new price list for the various PL components he produces. Unfortunately, I'm out of room this issue; the entire list will take about a page to print up. Just to think, when I started this issue I was wondering how I was going to fill it up. Anyway, I will make every effort to get that list in the next issue - and no promises, but hopefully I can get that next issue out in fairly short order since we're in the "doldrums" part of the year here and there isn't too much else to attract my attention. I'll give it a try!

--Jack McCombs,
FL1/PL2 Newsletter Editor

Ladislao Pazmany
P.O. Box 80051
San Diego, CA 92138



Jack & Anne McCombs
1113 Palmer Rd. #2
Ft. Washington, MD 20744