

PAZMANY NEWSLETTER  
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THIS IS A GOOD NEWS AND BAD NEWS ISSUE -- the *good* news is that your newsletters will only cost you \$3.00 (or \$4.50 overseas) for this year, since this is only the third one I've gotten out this year - and as I write this, it's early December. The *bad* news is that of course you only get three issues this year. Blame it all on an obstinate airplane by the name of N75FL. You might recall that in the last issue I promised I'd get the ole FL in the air again before turning out the next issue, and I'm happy to say that I've kept that promise: N75FL completed its annual condition inspection at the end of November, and was signed off as of Dec. 1st. Work schedule and weather finally cooperated to allow me to get in a biennial flight review and some local flying to readjust the antiservo tab and get wife Anne back in the air for a bit on Saturday, Dec. 5. It's been a long, long dry spell, so to speak, and Anne and I are both pleased no end to get the FL back in the air again.

As with all things, however, nothing is perfect. Way back a few years ago, while performing aerobatics, I found that the inspection hatch on the cowling would pop open under the right combination of "G" loading and airspeed. I fixed this by refraining from aerobatics since, tempting though it was. For some reason, the inspection hatch has taken to performing this trick at normal cruise since the inspection. The hatch was fabricated exactly according to plans, even to the exact model of Camloc latch at the edges. Looks as though there is sufficient air pressure inside the cowling, even though this is back of the baffles, to slightly pressurize this area and blow the hatch open. What I have in mind for a fix is a gusset at each lower corner of the hatch opening to support the installation of Camloc (or Dzus, or whatever) screw type fasteners to hold the hatch closed, rather than relying on the spring tension of the push-button latches on the edges as on the plans. Anyone else have any problems with this with their flying FLs? If so, how did you fix it? Please let me know if you have any thoughts on this and I'll put them in a later issue if there's any interest, as with all FL subjects. For the time being, a roll of duct tape is carried in the aircraft for use as securing material for the wayward hatch.

Meanwhile, it's get on with it and catch up on back correspondence, news, and etc. You may recall that in the last issue I included some notes and comments from Bob Bradley's letter of mid-June. Well, space came right down to the wire on that issue, and I wanted to comment on one more item in his letter, that being the ground adjustable trim tab he installed on the left aileron. I imagine that many of you with flying FLs have found it necessary to install a ground adjustable tab on one of the ailerons; not that there's anything peculiar about FLs specifically that causes them to need such a thing, mind you:

Dear Paz;

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Ran out of room this issue for your report + pictures of your parts delivery to Argentina - but I'm planning on room for the story in the next issue. Also read your Oct. mailing looking for a PL-2 for sale - I assume you sent this out to all those you know of w/ completed acct, which means all on my mailing list would have received it - so I didn't include it again here. If the party is still holding, Mr. Philip Morris, Morris Aviation, Bx. 718, Statesboro, GA 30458 now owns Harold Sponaugler's PL-1 and is selling it - if he hasn't already. Happy Holidays - Jack Mc

Many, if not most, aircraft need aileron trim adjustment of some sort. The thing that interested me is that Bob installed his tab on the left wing and trimmed it to dimensions of approx. 9.5" long by 1.25" chord, bending it up approx. 20° - which is very much in the ballpark for the tab I installed on the right wing of N75PL, bending it down. My tab is about 10" long by 2" chord, and when I first tried it, I found that I had put in entirely too much correction. Rather than trimming the chord as Bob did, I took out some of the bend until I got it right - and now it's probably bent down only about 10°, as opposed to Bob's 20°. Interesting that we both needed about the same amount of correction in the same direction - but went about it in different ways. I chose the right wing to install the tab, since the airplane was slightly left wing heavy. This meant that I had to apply right aileron up, and therefore a tab on the right would be deflected down - and that seemed less obtrusive to me than having the tab deflected up on the left wing. Basically it's six of one and a half dozen of the other, though, so take your pick. Chances are, though, that no matter how carefully you jig that wing, you'll end up with a small fraction of a degree of difference between the left and right wings and need to add a fix like a ground adjustable tab. Don't feel bad when you do.

**HOT TIPS DEPT:** A few months ago Dewey Greene sent me some info on a possible cure for the oilcanning problem which occurs on some PLs in the fuselage just back of the baggage comp. due to the almost flat fuselage sides in that area. I had tried adding some additional stringers in this area between the formers, but found that although they helped a bit, it still wasn't a cureall for the problem. Dewey's suggestion is to cement some 1/4" thick foam to the inside of the skins in this area to prevent the oilcanning. He sent me a sample, and to me it looks like a pretty dense polyurethane foam of some sort. It's tan to brown in color, and I'd guesstimate that it would take 20 to 25 psi to put a dent in it. Dewey got his from Schreder Aircraft, Bryan, OH; Dick Schreder has designed a goodly number of high performance sailplanes for the homebuilder market, and I'm sure he'd be happy to sell some of this stuff to us PL enthusiasts. Only one thing: So far as I know, no one has tried this yet. I plan to, as soon as I get around to it. (Anyone know where I can get a round tuit?) Possibly Schreder would have some thoughts on the proper cement to use for this stuff too, since practically all his designs are in metal.

Another of those "if I'd had room I'd have put it in a long time ago" features for this newsletter is a copy of the article from the March, 1987 issue of EAA's *Sport Aviation* on Ed Boothe's recently completed PL-2 with wet wing tanks. I intended to include this article a while back, but better late than never. I realize that not all of you are EAA members, especially some of you who are building / flying your PLs overseas, so this may be your first opportunity to see this information. If you want to try this on your own PL, Ed included all the facts and figures in the article. I really enjoyed seeing all the pictures, particularly the "after" pics: Removing those tip tanks sure changes the lines of the PL! See the next three pages for the article - and check out the March '87 issue if you'd like color pictures.



Carl Schupp

by **Edward R. Boothe, EAA 185738**  
115 Locust Dr.  
Biloxi, MS 39532

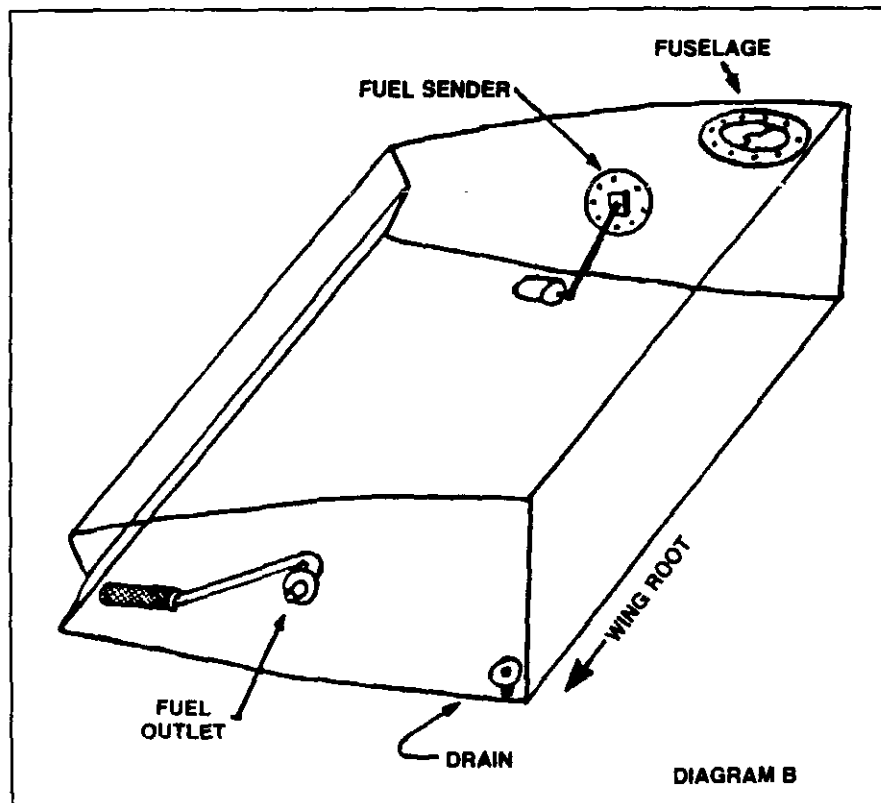
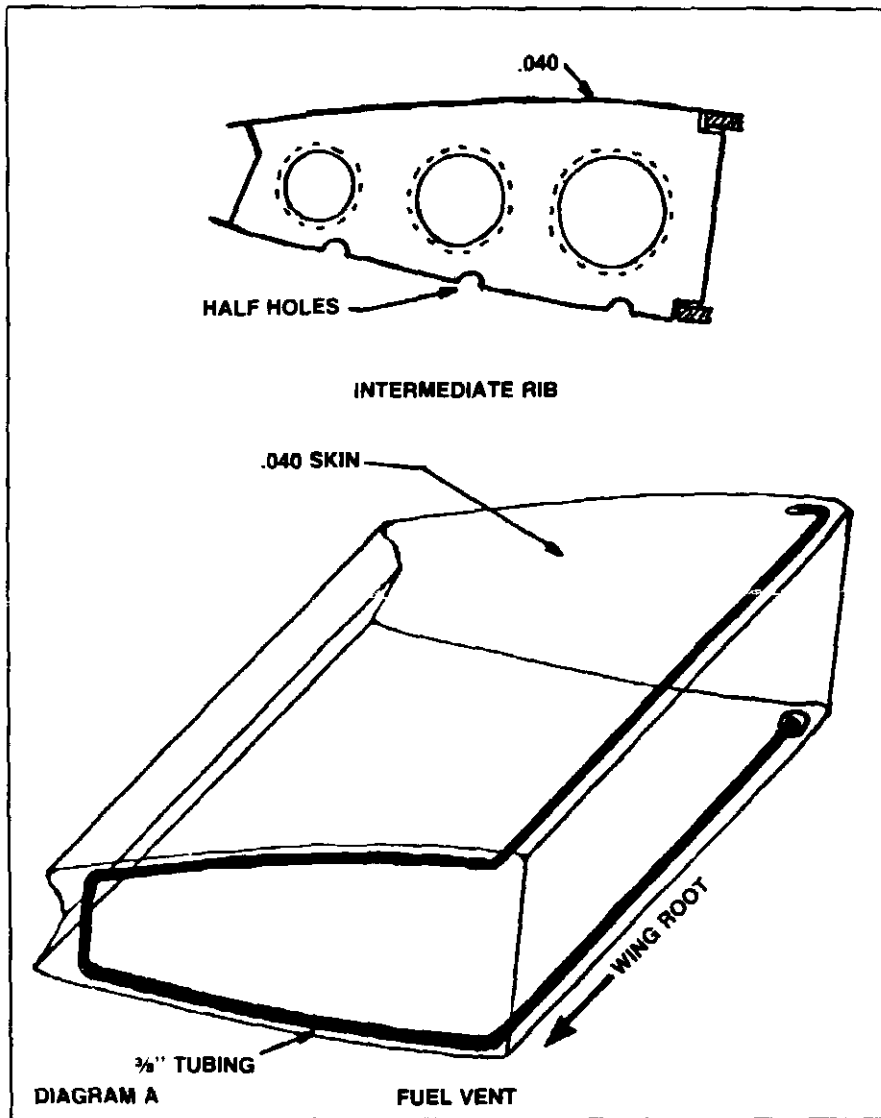
For sometime I have had the feeling that the flight characteristics of my Pazmany PL-2 could be significantly improved by moving the fuel tanks closer to the fuselage. The length of the lever arms from the fuselage to the tip tanks require the application of considerable aileron control pressure once the mass of the fuel is in motion to change the direction, or stop the roll; also an imbalance condition can easily develop if one tank feeds faster than the other. I also felt that making the arms shorter would increase the roll rate and bring about an improvement in spin recovery.

Although there is room in the cockpit for fuel tanks either behind the instrument panel or under the baggage compartment, I preferred to keep the fuel in the wings for obvious safety consideration. Since there was not enough spacing between the ribs to allow installation of tanks, the most reasonable solution seemed to be sealing off a section of



Chet LeBlanc

**Ed Boothe of Biloxi, MS and his wetwing Pazmany PL-2. The elimination of the tip tanks increased speed by 10 mph. Fuel capacity is increased by 3 gallons.**



the wing with two solid ribs and using two intermediate ribs inside the tank as baffles. After examining several drawings of integral fuel tanks both forward and aft of the main spar, it was decided to locate the tank between the main spar and the rear spar extending from wing station 40 to 70 in.

Although I removed the wing from the aircraft and moved it to my carport for convenience, this modification could be done without removing the wing if the aircraft were hangared. I built a jig using a 2" by 4" frame and plywood cut to the leading edge airfoil and lined with carpeting to prevent scratching the paint. This jig was well worth the effort as it held the wing firmly in place and all work could be done in the standing or sitting position.

I used Westach part number 395-5 Fuel Sender Unit which had the same resistance (40 to 200 ohm) as the original, and was able to use the existing fuel level indicators without any modification. The sender units require slight modification to the float to allow it to be mounted in the vertical rather than the horizontal position.

An elbow-flared tube and bulkhead 90 degree fitting (AN833-6D) were used for the fuel outlets. I used 3/8" tubing fitted to a finger strainer and bent to position the strainer at the bottom rear of the tank to insure fuel flow with nose high attitudes. If inverted operation were anticipated, a flop tube could be fitted to the AN833.

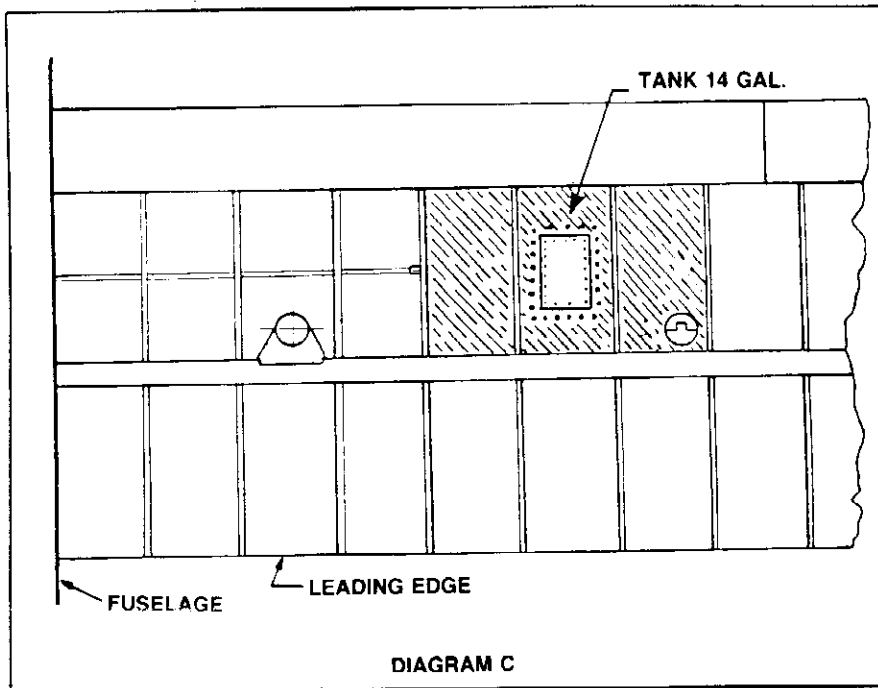
The vent tube was brought through the bottom of the tank through an AN833-6D fitting with AN924-6D nut. The 3/8" vent tube was routed to the top of the tank (see Diagram A) in a manner to prevent venting of the fuel in turns and climbs.

The fuel drains are SAF-AIR Model CAV-110 brought through the bottom of the tank at the lowest point using an AN867-2 aluminum welding flange with the lip filed off to permit riveting it to the skin.

All plumbing and tank parts were alodined and given one final cleaning with MEK and sealed using PR-1422-A2 sealant coated with two coats of PR-1005L sloshing compound brushed on the entire inside area. The sealant and sloshing compound were purchased from Wilco Sales, 6480 Chupp Rd., Bldg. C1, Lithonia, GA 30058.

It was necessary to fabricate some corner fittings from 1/4 inch aluminum stock to plug up the large holes in the corners of the solid ribs. These holes are too large to be filled with sealant without being plugged.

The old fuel lines were removed from



the wing, cut to length and routed to the new tanks behind the spar. A 4 inch by 6 inch access panel was installed in the top skin in the center of the tank, attached with sealed nutplates and temporarily fitted with a rubber gasket to

allow access to the tank during initial leak testing. A flush mounted gas cap assembly was installed at the highest point in the tank. The top of the ribs and joints were cleaned with MEK and coated with PR 1422-A2 sealant. After

etching and alodining, the predrilled top skin was riveted in place, reaching through the access panel where necessary to buck rivets. Only the tank area was riveted at this time, leaving the ends loose for leak testing.

Using the pressure outlet of a vacuum cleaner, the tank was pressurized to approximately 2 psi and the entire tank area brushed with soapy water. Leaks were very obvious and easily sealed by removing the access panel and plugging with PR 1422-A2. After the leaks were sealed, the rubber gasket was removed and the access panel sealed with PR 1422-A2. These panels could be very valuable in the future if any leaks were to develop. The remainder of the top skin was then riveted in place.

The fuel capacity of the new tanks was 14 gallons each which increased the total fuel capacity by three gallons.

The tip tanks were removed and replaced with Grumman AA5 wing tips. These required only slight modification to fit the airfoil and gave the aircraft an excellent overall appearance.

I feel that the flight characteristics and cruise speed have been improved sufficiently to justify the modification and what was a good flying aircraft is even better.



Three rib bays sealed off and plumbed to serve as a 14 gallon fuel tank.

Quite some time ago, while snooping around in EAA's files, I checked into any information that they might have in the way of mishaps with the PL-1 and PL-2 types. I've been meaning to cover this information for you for quite a while now, but it seems that there's always something else to cover in any given issue. Anyway, I've finally found room for it here. While I have left the dates of the accidents / incidents in the record, I have deleted the registration numbers to protect the innocent and/or guilty, as the case may be. The last accident in this list was not included in the original listing from EAA, but I received the information from Paz and included it in issue #72, back in the spring of 1985; I'm recapping it here to make this report as complete as possible. While there may very well be other PL-1 / PL-2 accidents or incidents which have occurred - perhaps some of you know of some which are not included in this listing - these are the only ones of which I am aware. If you wish to update this list, let me know and I'll include it in a future issue. I imagine that this listing is incomplete, since there is a certain embarrassment factor in mentioning such mishaps. However, bear in mind that mentioning it here for others to see and consider may help to prevent a similar occurrence by someone else - so please don't feel shy about telling your fellow PL people about it.

#### PAZMANY PL-1 / PL-2 ACCIDENTS / INCIDENTS

Aug. 29, 1971	Left landing gear was observed to be turned 90° to normal while on final approach. However, there was no radio in the aircraft to warn the pilot and the aircraft flipped on its back after landing. ( <i>Note: I understand that the accident was blamed on a formed / welded torque link rather than a machined aluminum link. If anyone else has any further info on this, please let me know - Ed.</i> )
Oct. 6, 1974	Taxi accident when the PL-1A was waiting on the ground along with three other aircraft. A Cessna taxied between an Ercoupe and this aircraft and struck the Pazmany.
May 17, 1975	Hard landing. Impact taken mainly on right gear. Right gear collapsed. Evidence of over stress of aluminum landing gear bracket. Builder's recommendation was to replace the aluminum .100 inch thick brackets with .100 thick 4130 steel.
Nov. 16, 1979	Pilot had a heart attack while on the ground and a minor collision.
Feb. 24, 1980	On takeoff, the pilot lost control, ground looped and hit a fence.

June 5, 1983

While flying with three other aircraft on a cross country flight, the PL-2 spun in from pattern altitude (800') from the downwind leg of the pattern. Pilot and passenger were killed. (Note: From the accident report, it would seem that there was apparently limited visibility, as the weather was questioned before the flight, the PL-2 overtook two of the other aircraft in the pattern, and the last radio message from the PL-2 was "Have you got us in sight?" The pilot apparently lost sight of the other aircraft and this distraction led to loss of control of the aircraft. To my knowledge, this is the only fatal accident involving a PL-1 or PL-2 and these are the only two fatalities, other than those involving pilot incapacitation due to heart failure. Ed.)

Here's another of those "quite some time ago" items: Around a year ago while talking with Ben Owen of EAA's staff, he was kind enough to pass along to me a copy of a list of completed PL-2 aircraft provided to him by Paz himself (thanks, Paz!). I've included the listing below, as well as Paz's comments on this and a few updates since I received the listing.

Paz notes that this is only a partial listing, since (1) he never made a list of completed PL-1s and (2) not all builders who complete an aircraft bother to report it to the designer. (Why not, guys?) Note the numbers of PL-1s and -2s built in Southeast Asia at the end of the listing, also.

Paz also notes that "so far, I don't know of any serious accidents with these military trainers. (Still true, so far as I know. The accident report in this issue covers only civil flying. Ed.) Certainly the utilization is far more than weekend, typical homebuilder flying.

"The safety of my designs was always my 'sales pitch.' Well, safety does not sell airplanes or anything - speed, lots of speed, new looks, gimmicks, all these will sell airplanes!" - Paz

This is certainly true too. Pushing the idea of safety doesn't seem to work if you're only after sales. But then, there will always be those few dedicated connoisseurs who are a few cuts above the rest who recognize outstanding design above the "gimmicks" (that's US I'm talking about!) and who will opt for these outstanding design features rather than looks and speed. Speaking of speed, as you've noted in previous issues, the PL series aren't exactly slow, either. Paz's performance claims have always been honest, perhaps even somewhat on the conservative side - which of course does not help plans sales either. Anyway, the result of the relatively low numbers of completed PLs is that I can get the entire list in the newsletter easily - so here it is, on the following page, in chronological order of completion:

COMPLETED PL-2s

- |                                |   |
|--------------------------------|---|
| 1. Kenneth Arnold              | Kansas City, MO   |
| 2. Earl Heldt                  | Monte Vista, CA   |
| 3. Hans Nielsen                | Sotenasvagen, Sweden  |
| 4. Raymond Voegele             | Layton, UT  |
| 5. Glenn Cushing               | Tuscon, AZ  |
| 6. David Thomas                | Neenah, WI  |
| 7. John McDonald               | Glendale, CA  |
| 8. Frank Kreuzer               | Hamilton, Ontario, Canada   |
| 9. D. J. Pantou                | Windsor, Ontario, Canada  |
| 10. South Vietnamese Air Force |   |
| 11. Edwin Levy                 | Savannah, GA  |
| 12. LIPNUR                     | Bandung, Indonesia (LIPNUR is the organization which built the airplane. They completed some ten aircraft.)   |
| 13. W. R. Greville             | Broken Hill, Australia  |
| 14. Sam McKee                  | Wichita Falls, TX   |
| 15. Erroll Jansen              | Monahans, TX  |
| 16. Ross Whitney               | Lambeth, Ontario, Canada  |
| 17. Henk VanDenHeuvel          | Bass Hill, Australia  |
| 18. Harold Pio                 | Ramona, CA  |
| 19. Milton Grimaldi            | Ramona, CA  |
| 20. Harold Sponaugle           | Vero Beach, FL  |
| 21. Asahi Miyahara             | Tokyo, Japan  |
| 22. W. C. Gramatzky            | Dallas, TX  |
| 23. Fred Bouffard              | Mattituck, NY   |
| 24. Grp. Capt. Matasinghe      | Sri Lankan Air Force  |
| 25. ???                        | England (I don't have the builder's name, but the aircraft was destroyed on June 5, 1983 in what so far as I know is the only fatal accident involving a PL to date.) |
| 26. Bruce Frazer               | Christchurch, New Zealand   |
| 27. Vance Mosher               | Ventura, CA   |
| 28. Sam Lane                   | Rome, GA  |
| 29. Merrill Roth               | Hillsboro. OR   |
| 30. Edwin Boothe               | Biloxi, MS  |

Along with these, there were some ten PL-2s completed by the South Korean Air Force and perhaps three completed by the Thai Air Force, for a total of some FIFTY TWO PL-2s! Wow, wouldn't that make some flyby?

And don't forget all those PL-1s built over the years, and still being completed. The Nationalist Chinese (Taiwanese) completed 58 PL-1Bs (PL-1s with 150 hp. Lycoming O-320 engines) and two of your fellow newsletter subscribers have completed their PL-1 projects in the past year or so: Bill Raksanyi of Hammond, IN, and Bob Bradley of Marblehead, MA. Too bad Paz doesn't have a list of PL-1 completions; otherwise, I'd include them too. All in all, we're looking at a verified total of 112 PL-1s and -2s right in this listing, and I'm sure there are a lot more PL-1s (and a few more -2s) that we don't know about; it wouldn't surprise me to find that there are over 150 PL-1s and -2s flying (or having flown) out there!

Meanwhile, it seems that I have only one more page to cover



everything else I need to cover - obviously most of it will be carried over to the next issue, #81 of the 1st quarter of '88. I anticipate getting that issue out fairly soon, now that N75PL is airworthy again. Anyway, let's go down the list of items here in roughly chronological order. Way back in July, Ed Boothe of wet wing PL-2 fame dropped me a line to report that the airplane is doing just fine, thank you, after 76 hours of flying since the modification - undoubtedly considerably more now. If this project intrigues you also, Ed says he'll help out where possible. Contact him at 115 Locust Dr., Biloxi, MS 39532.

Lee Conlan of Homebuilders Aircraft Associates reminds me (and you) that he's retiring from the PL parts business as of the end of the year. If you want any parts from him, contact him immediately to let him know at 7858 Arnett St., Downey, CA 90241 - or you might want to give him a call at (213)869-0536 to make sure he gets the word in time.

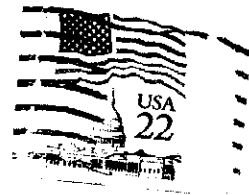
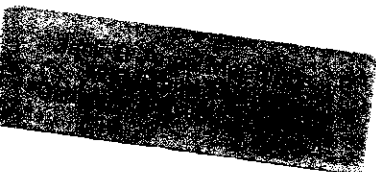
Way back in August I recieved a note from Milan Lawrence about a short segment shown on ABC News on Aug. 3rd "of a Japanese plane crashing. It looked like a PL-2." Anyone else out there know anything about this? I had to plead ignorance in my reply to Milan - and I haven't heard a thing about it since.

Pete Karmouche is still going strong on his PL-2, and if the rest of it is as nice as his famous gear fairings, it's going to be a trophy winner. As of August, Pete was working on a custom cowling with semiannular cooling intake and 5.5" extension, and is fabricating female molds for this - all compound curves and fiberglass from the firewall forward! I will make an assumption here, Pete, that you will make up cowlings on order for those who want all that sleekness for their very own PLs. Contact Pete on this at 9 Cranfield Ave., San Carlos, CA 94070. By the way, in the last newsletter I mentioned that another builder was flying with a set of Pete's gear fairings. Honest to a fault, Pete wrote to correct me on this - as of last Aug., none of his gear fairings were flying yet. Perhaps this has changed by now - or soon will.

Mr. Philip Morris of Morris Aviation, Box 718, Statesboro, GA 30458, also dropped me a line to pass the word that he has (or had, at the time) the PL-2 built by Harold Sponaugle. The airplane is nicely equipped and has brought home several trophies. I wish I had room to include the pictures Mr. Morris sent along, but I'm out of room in this issue. If the aircraft is still available, you can bet you'll be seeing them in the next issue in another month or two.

Although I didn't run into many of you during the EAA Convention, I did meet none other than Paz himself, who was kind enough to drop off some pictures and notes on the delivery of the PL-2 components he has had for some time. Seems that since that time, I've heard from several builders who wanted to get a head start on their project by purchasing those parts. Sorry, folks, they're in Argentina now, and you can see the story in the next issue. A most interesting story it is, too!

Well, that about wraps it up for this issue - and this year. By the way, I still have a few of those embroidered PL emblems available, \$3.00 each. May each of you and your families have a wonderful holiday and a successful new year building that PL!



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Your last issue is #N/A

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