

# PL-1 PL-2 NEWSLETTER



NUMBER 45

FALL 1974

## AIRCRAFT DESIGNER

Ladislao Pazmany  
Post Office Box 80051  
San Diego, Calif. 92138

## PL-1 EDITOR

Lee Conlan  
7858 Arnett St.  
Downey, Calif. 90241

## PL-2 EDITOR

Pat Jansen  
510 W. 14th St.  
Monahans, Texas 79756

Thanks to the enthusiastic response of the PL-1, PL-2 builders, the newsletter subscription period has been extended. The \$3.00 fee will entitle you to eight issues ending with Fall 1976. Besides information about the progress of individual builders, the newsletter will include suggestions for suppliers, technical tips, and news from PL-1, PL-2 pilots whose projects are already in the air. With your help the newsletter can be interesting and informative. Men - the newsletter needs your advice on building techniques. Ladies - a woman's point of view would be welcome, especially in regard to items like upholstery. Share your experiences by sending articles to the editor for publication.

CANOPY SLIDES are available now from Custom Aircraft Parts and Homebuilders Aircraft Associates ( see SUPPLIERS LIST for address). If you have not already gotten your canopy slides and plan to buy them, do so now. This is a part that cannot be bought just anywhere and they are presently available.

IF YOU WRITE PAZ and expect a reply, or you write one of the NEWSLETTER EDITORS and you expect a reply, please send a stamped, self-addressed envelope (USA builders only). This will save a lot of time for PAZ and the editors. Paz gets a tremendous amount of mail about PL-1, PL-2, PL-4 which he is very prompt in answering and this would be a great deal of help to him.

HEAT TREATING all those 2024 T0 parts to T42 condition is a traumatic experience for a builder because of how the parts, especially the ones made out of .016 material can warp out of shape during the heat treating process. I was told of one builder who took one look at his heat treated parts and the way they were warped and threw them in the garbage. Don't despair because most of the warpage can be taken out. The parts will remain soft after heat treating if they are kept frozen. They can be taken home from the heat treaters in dry ice and then put in the freezer at home. Doing it this way, parts can be straightened as time permits the builder to work. Some parts, like wing ribs and fuselage frames cannot be completely straightened and will retain some warpage after straightening. This is no problem because they can be pulled into place and held in the proper shape during assembly. So, straighten the parts as best you can after heat treating but expect some warpage which can be taken care of during assembly.

PAZ SEZ Many times PL-1 and PL-2 builders asked me about a RETRACTABLE LANDING GEAR - My answer is NO! Too much redesign which should not be tackled by an amateur. Furthermore, it will represent a weight increase, possible torque box weakening, and no possibility of full retraction - The wing is not thick enough for a full retraction. A recent study I made of the drag of the PL-1/2 landing gear indicates that if the PL-2 has a cruise speed of 125 m.p.h., by fully retracting the wheels it will reach a cruise speed of 140 m.p.h., but if VERY EFFECIENT WHEELS AND STRUT FAIRINGS are installed, the cruise speed will be 137 m.p.h. This is only 3 m.p.h. slower than fully retracted. A set of fairings can be made for a fraction of the expense of a retractable gear. I made the PL-2 drawings for these fairings in 1970.

DWG 2-60-005 - MAIN WHEEL AND STRUT FAIRING

DWG 2-60-006 - NOSE WHEEL FAIRING

\$12.00

I have the Cleveland 500-x5 wheel and brake installation DWG 2-60-004 at \$5.00.

PAZ SEZ At this time I have a batch of PL-2 SPAR CAP EXTRUSIONS in machining. A few sets are still available at the \$300.00 price. The next order from ALCOA will be more costly, which means that I will have to increase the price to \$325.00/set. I have also a few kits of FUSELAGE EXTRUSIONS at \$110.00/kit and the AND 10136-1304 (36") at \$20.00. I used to get these extrusions surplus - NOT any more, the last order was directly from the supplier at more than four times of the previous price.

PAZ SEZ The .016" STAINLESS STEEL for the FIREWALL can be obtained from Aircraft Spruce and Specialty Co., Box 424 , Fullerton, Calif. 92632. At least it is advertised in their recent catalog.

PAZ SEZ For those who still not convinced of the utility of my recent book "PL-4A Construction Manual", I would like to mention that so far I have sold some 700 copies, although there are only 450 sets of PL-4 plans sold. Many amateurs building other than PL-4s are buying the book, because the information contained in it is applicable to any sheet metal aircraft. Just a few days ago I received a request for 1000 copies of this book by the Canadian Department of Defense including a request to translate the book to French, and eventual publication as a Canadian Forces Technical Order for Government use. Did you order your copy? The price is \$10.00.

PAZ SEZ POP RIVETS can be used to install the skin of the PL-1/2 as follows:

Rivets called out in the plans	Replace with
BJ3 (3/32 Univ. Head)	Monel POP - MD 3XX BS
BJ4 (1/8 " " )	" " - MD 4XX BS
BB3 (3/32 Csk " )	" " - MK 3XX BS
BB4 (1/8 " " )	" " - MK 4XX BS

The GRIP length will determine the last two digits ( XX). Dip each rivet in ZINCHROMATE PRIMER for additional corrosion protection just before installation.

PAZ SEZ The POST OFFICE RETURNED some 50 or 60 envelopes with NEWSLETTER #44 and PL-2 ECN #4. If you did not receive this information, send me a self-addressed and stamped envelope and I will try again.

NEWS FROM THE BUILDERS. Along with the \$3.00 for the Newsletter has come much information about PL-1/PL-2 projects across the country. We have gotten many interesting letters also and thought you might be interested in knowing how others are getting along with their projects. The number of letters are too many to get in this first issue but we will try to include them all in later issues.

DEWEY GREENE, Rt. #3, Box 4, Genesco, Ill. 61254 A corn farmer by vocation, Dewey is also growing PL-1 #237 which he started in 1967. He has completed rudder, flaps, fin, gear, stabilator, all fiberglass - canopy, engine mount fuselage formers, tip tanks (90%) and wing is ready for skins. He has MATERIALS to sell and will loan or rent MOLDS and TOOLING. Dewey built a basement for his project with a door big enough to get it out when it is finished. He also has a landing strip which will be on the sectional next year just in case you plan to fly over and visit him.

MICHAEL J. RUSHINSKY, SR. AND SANDY, 509 Hight St. Elyria, Ohio 44035 started PL-2 #? December, 1972 and hope to have it flying by 1977. His wing is ready for skinning and the flaps and ailerons are done as well as the wing tanks and landing gear plus some other odds and ends. Michael has some very accurate wing rib form blocks that he might be able to loan if he could borrow other molds. Michael and Sandy are skiers as well as fliers and airplane builders. Wouldn't it be wonderful for all the PL-1/PL-2 builders to go skiing together - we could ski all day and talk about airplanes into the night as we sat around the fire and drank hot buttered rums.

J. A. MACDONALD, 640 Robin Glen Dr., Glendale, Calif. 91202 is using the spare space in his shop to build PL-2 #102. He has the wing complete, fuselage framed and partly skinned, virtually all component parts formed, heat treated and primed for control surfaces, landing gear complete, engine O-320 constant speed ready to mount. He has nearly a complete set of MYLARS, TEMPLATES, AND FORM BLOCKS FOR WING COMPONENTS, ALSO FLAPS AND AILERONS. He would be interested in trading them - they would be great for a group with access to a hydro press. He doesn't think they would take the beating of hand forming for very many parts.

A. E. ALESHIRE, 5 Boxwood Circle, Bryans Road, MD. 20616, will loan JOGGLE BLOCKS FOR - 13 - 14 RIB ATTACH ANGLES. He is in need of 2024-0 .375 plate for nose gear fork. Both his garage and basement are needed to house the main spar, all wing, flap and aileron ribs, vertical fin and rudder ribs, horizontal stabilator ribs and spar, rudder and vertical stabilator spars, wing rear spars, flap and aileron spars, fuselage frames, most of landing gear, and all parts made in "O" condition completed and heat treated.

HERBERT O. SANDBERG, 122 Stevens Ave., Valhalla, N. Y. 10595 advertises PL-1 PLANS for sale for \$50.00 - complete set, never used.

JOHNNIE HOLICK, 3609 Trice Ave, Waco, Texas 76707 started a PL-2 in 1972 and has completed the fuselage frames (heat treated) the fuselage jig and wing jig as well as building a sheet metal brake. He also has a lot of other parts made and heat treated.

OSHKOSH 1974 The highlight and central attraction at Oshkosh this year, at least for the PL-2 builders, was Kenneth and Mildred Arnold's PL-2 N72KA. The Arnold's ship is flush riveted, full IFR panel, 150 hp., white with red and black Imron paint and was completed after eight years of dedicated labor. N72KA produced quite a bit of interest in PL-2s since it was the first and only one that has been to Oshkosh and was the gathering place for all of the PL-2 builders each day. Besides airplane building, Kenneth Arnold is an attorney in Kansas City, Missouri. (Their address is 1125 Grand Avenue, zip. is 64106) Incidentally N72KA is now pictured in the new PL-2 add in sport aviation.

CONGRATULATIONS TO TWUANA MCKEE - MISS EAA OF OSHKOSH 1974. This attractive young lady just happens to have parents who are PL-2 builders. Mona and Sam have almost completed the fuselage and are ready to start on the wing. Mona writes that they will be going to as many FLY-INS as possible. Twuana will appear as Miss EAA only by invitation, so if you would like to invite her to attend a FLY-IN you can write to the McKees at 5311 Seymour Hi., Wichita Falls, Texas, 76310.

T. K. GIBSON, 82 Dellbrook Cres. Western Ontario M9L 1E2 CANADA is building PL-1 #160 in his basement. He has all parts complete except for his fiberglass parts and hopes to have it flying in two more years.

LOWELL KLEVEN, 10410 York Lane, Bloomington, Minn. 55431, is building PL-2 #18 which was started in 1972. Has completed rudder and part of stabilator.

PETER KARMOUCHE, 2715 Concord Way, San Bruno, Cal., 94066 has completed ailerons, flaps, rudder, fin, stabilator, all heat treated parts, tip tanks, engine cowling, and most fiberglass parts on PL-2 #175 and is presently enlarging his garage so that his wing can be built in one piece. Peter started in August, 1972.

GEORGE HEIDE, 620 E. Walnut St., Palmyra, Pa. 17078 is building PL-1 #24 in his basement. He has completed his rudder, miscellaneous ribs, fittings, spar caps, and elevator spar.

W. F. BLACKINGTON, 13979 Ravenna Rd., Newbury, Ohio 44065 started January, 1973 on PL-2 #168 and has completed landing gear (almost), aileron and flap framework, with many parts done on the fin. He would like to borrow some of the molds and form blocks.

E. J. KOWALSKI, 237 Burtman, Troy, Michigan 48084 has completed wing and tail parts on PL-2 #32.

JOHN G. OSBURN, 3215 S. New York Ave., Milwaukee, WI. 53207 is building PL-2 #39 in his basement and has completed all machine parts, landing gear, various ribs, bulkheads, spar parts and fittings and has parts everywhere.

ROBERT S. FINCKE, P. O. Box 285, Griffin, Georgia 30223 started PL-2 #127 in 1972. He has been doing mostly machine work so far and has 5/8" x 9" 7075 hard aluminum for sale.

BOB BROWN, 12775 S. W. Bowmont St., Portland, Oregon 97225 is involved in a switcher-o, he is making a PL-1 wing with the remainder following the PL-2 plans. He has done the wing spar, all wing and tail ribs, landing gear about 50% completed, and numerous other parts made. He says all these parts make his garage pretty cramped. He is ready and able to give other builders a hand. He has a set of PL-2 RIB BLANKS READY TO HYDRO-FORM AND HEAT TREAT. He has the dies to press them there or he can sell the blanks. He has some extra FIN and RUDDER RIBS already formed and heat treated. He has a set of fuselage frame forms with which he expects to finish soon. He will rent the FUSELAGE FRAME FORMS until the material cost is recovered or consider sale. He has a FIBER GLASS MOLD FOR NOSEBOWL (Lyc. 0-320), MOLD for FIN TIP with a rotating beacon mount and partner, Merrill Roth (PL-1) has vacuum formed FIN and STABILATOR TIPS. Merrill also has a complete PL-1 WING/PL-2 FUSELAGE KIT for sale, and has MOLDS FOR TIP TANKS. They have many patterns and parts of various kinds.

D. J. PANTON, 3565 Askin, Windsor, Ontario, Canada N9E-3K1 states that steady progress on his PL-2 since Feb. 1971 has resulted in amazing results. The status of his plane, plan number 110 is as follows: approximately 50% of project done - all flaps, ailerons, tail surfaces and miscellaneous sub assembly 100% complete. All other parts 97% done and in stock. He is working in a 10' x 13' Utility Room with Zilch tools (drill press, tiny lathe and misc. hand tools). He will move to the garage for fuselage assembly this winter after installing a furnace.

ALFRED BARTELL, 1153 E. 168th St., Cleveland, Ohio 44110, is currently working on the center panel. All parts for the wing are complete. Other accomplishments include flaps, ailerons, stabilator, vertical fin, rudder, one tank completed, and landing gear 90% complete. For almost a year the project has been held up while he has built a new garage. He ran out of room in the basement.

ALFRED F. JONES, P. O. Box 3486 Station A, Arlington Texas 76010 is presently trying to finish the wooden jig for the PL-2/ he is interested in the name, address, and parts etc. of everyone selling parts and so forth for PL/2. Please contact him if you can give him some help.

MERLIN VOLLMAN, 7730 El Rancho, Houston, Texas 77017 has built all heat treated parts in his garage.

KEN BOWSER, 1193 Coventry Crt., Windsor N8S-2W8 Ont. CANADA began by building a garage 20' x 32' in order to build the complete plane assembled. Currently he has the rudder fin less cover, stabilator same, all details complete, spars, landing gear, 0-290 G converted to 0-290-D less air. crank, carb, mag.

TOMMY PHELPS, 1200 Hamsted St., Ft. Worth, Texas 76115 with PL-2 #49 has finished 1118 parts - his estimated completion date is the hereafter.

DR. W. AWSCHALOM, c/o Fermi Laboratory, P. O. Box 500 Batavia, Ill. 60510 is hoping to start a PL-2 soon.

JACK FIRKINS, RR-2 Box 36A, Moravia, IA. 52571 is just completing a new home with a large all weather garage where he can begin on his PL-2.

NORRIS G. WHEELER, 119 N. Washington, Enid, Oklahoma 73701 is progressing well on PL-2 #86 with nearly all materials and parts, fuselage in jig, wing ready for skin. His duplex is nearly finished so he should be able to spend more time on the plane soon. Currently he is fabricating parts in an old store building and assembling in a hanger at Woodring field.

TONY ZALLACK, 2818 Devonshire, Fullerton, Calif. 92635, writes that he has too many projects going to get to his PL-1. He has started several landing gear pieces but can't find time to work. He is very much interested in the progress others are making. He says to count him in as a PL-1 builder. What a fine spirit.

MILDRED AND KENNETH ARNOLD, 9415 Madison, Kansas City, Mo. 64114 who flew their PL-2 to Oshkosh enjoyed being able to meet other builders. They already have reservations for next year and plan on being there all week. Kenneth is in the process now of deciding that he will make another wing, making the gas tanks a part of the wing. He has talked to Paz about this, and Paz has informed him that there is a fellow in California who is already doing this, similar to the ones that Don Taylor had in his T-18. Paz is to send the Arnolds the name of the person shortly, and they intend to either visit with him later this fall, or talk via telephone.

V. L. "JACK" CONRAD, III, 304-J South Mingo Rd., Tulsa, Okla 74128 with PL-2 #226 has collected instruments, miscellaneous hardware, and started panel. Fiberglass parts and landing gear will be his next projects. He does not have any parts or materials to loan or rent but would be willing to search Tulsa for other's instruments (can get U/S instruments fixed at low cost). Soon he should have some items to loan or rent. He is building in the living room (Sheila not divorcing him yet).

FRANK KREUZER, 625 Beach Blvd., Hamilton, Ontario L8H 6X8 CANADA, began PL-2, 141 on August 25, 1971. He has all parts made and some sub assemblies finished including landing gear. So far most of his work has been done in the basement.

SPENCER GOORD, RD. #5 Touby Rd., Mansfield, Ohio 44903 would like to build a PL-2 sometime. Welcome to the PL-1/Pl-2 fan club.

GUY WAYMEN, 13327 - 95 St., Edmonton, Alberta, CANADA T5E 3Y3 optimistically asserts that he has all the pieces made up - only to put it together. He started in his basement and ended up in the garage when the garage was built. He has PL-1 #35.

ISABEL AND R. L. WOOD, Rt. 1, Box 323, Skyline Drive, Delray Beach, Fla. 33444, are lucky enough to be building in a hanger. They have completed the wing and control surfaces and are working on the fuselage for PL-2 #60 which they began in 1970.

A STARRY EYED PL-2 BUILDER with a brand new set of plans and no idea where to start writes that he needs all the help and mutual aid he can get. Many new builders are confused about just what to start on first. Please send the Newsletter your ideas about just what a good beginning point might be.

THE AIRCRAFT SUPPLIERS listed below are some which have proven to be helpful to the editors. If you can suggest some others, please send their names and addresses in to the Newsletter.

PAZMANY AIRCRAFT CORP.  
Box 80051  
San Diego, Calif. 92138

Plans, all extrusions,  
construction guide

CUSTOM AIRCRAFT PARTS  
1318 Gertrude St.  
San Diego, Ca. 92110

Richard Poston has hardware, canopy slides, tubing, wheels, instruments, fabricated 4130 parts

HOME BUILDERS ASSOCIATES  
7858 St.  
Downey, Ca. 90241

Fiberglass parts PL1/PL2, PL 1 rib kits, plexiglass PL1/PL2 and canopy slides. Lee Conlan

B & F AIRCRAFT SUPPLY  
6141 West 95th Street  
Oaklawn, Ill. 60453

4130 tubing, 4130 sheet, hardware, aluminum, wheels etc.

RATRAY AIRCRAFT PARTS  
2357 Afton Rd.  
Beloit, Wisconsin 53511

Fiberglass parts PL1/PL2

MCFARLAND AIRCRAFT CO.  
9239 Vista Drive  
P.O. Box 1353  
Spring Valley, Ca. 92077

Aluminum parts for PL2 plus metal kit for PL2, Jim Nieswonger

AERO MACHINE & PLASTICS INC.  
160 West Westerly Way  
San Marcos, Calif. 92069

Walter Bucher has machine parts for PL1/PL2

AIRWORLD  
P. O. Box 160  
New Hyde Park L 1  
New York 11040

Riveting tool, rivets, drill bits, reamers, counter sinks and much more.

THE HEAVY-DUTY HYDRAULIC RIVETER listed in the Sears Catalog was a big help to Kenneth Arnold. The Craftsman Riveter is listed on page 897, the Catalog Number is 9 H 7477 - Shpg. wt. 2 lbs. 3 oz. cost \$29.95. A squeeze on handle activates a built-in hydraulic system.

BRUCE CARMEAN, 226 Bayshore Dr. Decatur, Ill. 62521 is  $\frac{1}{2}$  complete on PL-2 #75 which he started in 1970. He has FIBERGLASS MOLDS to rent or loan. Bruce will start assembly on his fuselage soon and is now finishing up on firewall and instrument panel. (Editor's note: We were able to use some of Bruce's molds and they really saved us a lot of extra work.

RAY THOMPSON, 9335 Geneva Way, Fern Creek Ky. 40291, 502-239-5887 is building PL-2 #201. Having completed his own MACHINED PARTS, he is willing to trade machined parts for instruments or what have you (wheels, brakes). He is working in his garage and basement.

PAT JANSEN  
510 W. 14TH  
MONAHANS, TEXAS 79756  
USA



FIRST CLASS MAIL

L. Pazmany  
P. O. Box 80051  
San Diego, Calif. 92138