



THE OFFICIAL VOICE OF GP-4 BUILDERS ALL OVER THE WORLD

VOLUME 23

NOVEMBER - DECEMBER 1998



Bill Berrick at his home base of Omaha, NE

Hi Spud,

I enjoyed the latest Newsletter but was surely sorry to hear of Ernie Holmes' gear problems. I had the pleasure of spending most of the week with him when I had my GP-4 at Oshkosh '97; he is surely a knowledgeable builder and a fine gentleman. My suggestion for trying to prevent that type of failure is

to file the retraction links to lock a little over-center rather than straight away as shown on the plan. It seems like a lot of people are going to the hydraulic retraction. I look forward to seeing reports of successful operation of those, hopefully without the collapse problems that most of us have had with the original design.

My brakes are working normally now, and I have noted that it is important to let the airplane slow down considerably on the roll out with the flaps down for wind resistance and throttle closed. My micro switches on the main gear are set so that any tendency to fold makes the warning light turn on and the green light go out. Stepping hard

on the brakes at high speed tends to make the main wheels turn in which in turn makes them try to push the gear leg in the retract direction—on mine enough to make the red light flash. I go on to the next taxiway rather than using much brake pressure; if I someday see that I'm running out of runway I'll stand on them and see what happens. I'm not likely to intentionally get into a short field or a sod strip with my GP-4; I just don't have that much confidence in the gear.

I used the brake extension design shown on drawing #8 as I am a few inches shorter than George. I made the attach tube for the brake cylinder shaft at the angle shown on the plan. On mine the top edge of the aluminum pedal struck the shaft before the brake cylinder was fully compressed, making an anemic brake response until I removed the whole pedal system and re-welded the attach tube in a nearly vertical position. I had to cut the brake pedal torque tubes to remove the assembly from the finished airplane. I used sleeves to re-attach them with welded in bushings inside the torque tubes for the bolts. Builders might want to consider doing that before everything is closed up.

I have 150 hours on the airplane now and surely wouldn't trade it for any other design I have seen. I'm still working to regain instrument currency and get really comfortable with controlling this complex machine. The ailerons are sensitive but quite heavy compared to my AcroSport or to a Grumman, while the elevator is so light that you only need to think up or down. A friend with a Lancair IV had the same situation, which he solved by putting servo tabs on the ailerons. I went the other way and attached "bungee" springs to the control shaft for the elevator where it is accessible through the opening for the battery compartment. I attached a short 5/8" diameter spring and three 1" chain links

each to the frames at stations #97 and #114 and connected the ends of the chains to a clamp on the control tube. I also added a 3/4" square wood strip between the frames so that the frames would not tend to warp from the spring pull. This results in a centering mechanism for the elevator and enough resistance to make it easy to turn with out climbing. I think a person would get used to the way it was eventually, but this surely helped me for instrument work.

I was planning to make Sun & Fun and Oshkosh '98, but collapsed my nose gear and dinged the propeller the week before Sun & Fun while I was practicing night landings. The landings had gone OK and I had been turning off to the left on our unlighted taxiway until the last landing when I rolled on by the first turn-off. Instead of going on to the next one, I did a U-turn on the runway and came back to make a right turn onto the taxiway. I can watch the edge of the concrete for a left turn, but you just can't see much on the right side of our plane; the result was I cut the corner and got off in the sod.

The concrete was about 1" above the level of the sod, which was not really all that soft, but the nose wheel approached the edge of the taxiway at an angle so that it was caught and turned sideways by the concrete, partly breaking off the stop that limits how far it can turn. When I gave it some throttle to move forward, the gear bent the push-pull tube that raises and lowers it, and folded into the retracted position. Suddenly everything was silent except for some words not fit for publication.

I replaced the push-pull tube with one with a thicker wall, and re-welded the tab that limits turning of the nose gear. Also did some cowling repair and tore down the engine which turned out to be OK. The hard part was that certified prop shops won't touch a Hartzel prop

with its tips folded back, and it took over three months to get a new prop. I might still be waiting if George hadn't helped out with a little pressure. He called them on a Friday morning and they assembled and tested it that day and shipped it to me on Monday!

Bill Berrick
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Bellevue, NE 68123-1119
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berrick@worldnet.att.net

Builders List

Here is the current GP4BFN subscriber's list as of 1-25-99. The last time we ran a builder/ subscriber listing was back in April of 1996. I didn't realize it had been that long. We'll try to do it annually from now on. The list here reflects the current subscriber base of the newsletter, 130+ people. There has been 400+ sets plans for the GP-4 sold. Not everybody subscribes to the newsletter and since they did not receive the notice of the pending name release, I feel it wouldn't be right to release these names without notification. I feel this newsletter subscriber base probably reflects the most active builders.

Also the list is listed "By State". This should make it easier find builders that are close to you or where ever you may be traveling.

There is also a half page insert with this issue of the balance of the subscribers.

Regards,
Spud Spornitz

Last	First	Address	City	ST	Zip	Country	Phone
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COUSIN	CHRISTOPHE	RESIDENCE LES PASTORALES	3 RUE DU MARCHE	78	870 BAILLY	FRANCE	011331632551927
FOSHEE	PHILIP D.	310 PINEDALE RD.	CLANTON	AL	35045		2057553980/7553877
WELDON	LARRY	4832 WELDON RD.	TALLASSEE	AL	36078		3345413615
HAUGEN	MIKE	PSC 78 BOX 200	APO	AP	96326		011816117336476
HANSON	ROBERT	11001 N. POMERGRANATE DR.	TUCSON	AZ	85737		5207978951
NAJAKA	ROBERT S.	2683 BROKEN ARROW	KINGMAN	AZ	86401		5207577903
TEMPE	DOUGLAS	2441 E. LA JOLLA DRIVE	TEMPE	AZ	85282-6048		838-6699
BAUM	STEVE	9482 PIKE ROAD	SANTEE	CA	92071		6195625278
BRAVO	CLAUDIO	P.O. BOX 2414	OLYMPIC VALLEY	CA	96146-2414		9165813041
BROWN	KEN	4440 DATE AVE.	LA MESA	CA	91941		619 697-6254
CAPPS	DARRY	813 HOYER RD.	NEWMAN	CA	95360		2098622707
CRISTOFARO	RALPH	9568 ESTATES DR.	GILROY	CA	95020		4088474114
FOSTER	BOB	110 MEDLEY LANE	OROVILLE	CA	95966		9165894624
GIANATASIO	TOM	1576 BELLEVILLE WAY	SUNNYVALE	CA	94087		408-733-0693
JACKSON	JAKE	1052 HAYER COURT	RIO LINDA	CA	95673		9169920608
KALLOS	THOMAS	444 SARATOGA AVE. #2L	SANTA CLARA	CA	95050		4082493552
LYNCH	DENNIS	10656 WUNDERLICH DR.	CUPERTINO	CA	95014		2490211
MORGAN	JERRY	1481 AUTUMN WIND CT.	PITTSBURG	CA	94565		5109323721
MORROW	DAN F.	5350 STUDEBAKER CIRCLE	SAN JOSE	CA	95136		4082257499
MORTON	CRAIG A.	4959 WILLOWCREST AVE	NO. HOLLYWOOD	CA	91601		8185450165
NYE	KEN	P.O. BOX 5008	MARIPOSA	CA	95338		2099663546
PEREIRA	GEORGE	3741 EL RICON WAY	SACRAMENTO	CA	95864		9164833004
RESER	DAVID	1316 W. VALENCIA MESA DR	FULLERTON	CA	92833-2223		7144491772
THOMPSON	CLIFFORD	18315 RANCHERO ROAD	HESPERIA	CA	92345-7434		7602447969
THOMPSON	S.FLOYD	1515 CAPALINA RD, #56	SAN MARCOS	CA	92069		
TRAUD	MIKE	11907 PROSPECT HILL DR.	GOLD RIVER	CA	95670		9166351147
WILSON	BILL	13281 BITNEY SPRINGS ROAD	NEVEDA CITY	CA	95959		5109397276 w351765
WYCKOFF	STEVE	1448 CALLE PRIMERA	LOMPOC	CA	93436		8057330573
GREEN	DONALD	11285 N. CARDINAL DR.	PARKER	CO	80134-7906		3038414499
MIKUS	TONY	0344 KINGS ROW, N.	CARBONDALE	CO	81623		9709639575
WILLIAMS	GARRY	26904 ROAD 13	ELIZABETH	CO	80107		3036483181
SIMMONS	JIM	295 CONTOUR DRIVE	CHESHIRE	CT	06410		2032729346wk860290
MOELLMAN	DENNIS	1383 NO. CAROLINA AVE N.E	WASHINGTON	DC	20002		
CONWELL	LES	8461 CRESSNA DRIVE	NEW PORT RICHEY	FL	34654-5201		8138419764
EVANS SR.	THOMAS L.	411 STARR RIDGE LOOP	LAKE WALES	FL	33853		9416764346
GREENE	A.C.	501 LAKE AVENUE	LAKE WORTH	FL	33460		5617951173 w561585
HENNIS	WESLEY	6687-3 CAPE HATTERAS WAY,	ST. PETERSBURG	FL	33702		8135266596
LeBLANC	JOHN	1699 STONE RD.	GLENWOOD	FL	32720		9048225637
MEGGERS	LESLIE	7702 CALLAN COURT	NEW PORT RICHEY	FL	34654		8138443922
PARKER	CLARK	310 WOODLAND TRAIL	LADY LAKE	FL	32159-4365		3527539576
SALAMONE	PAT	200 BREVARD AVENUE, STE 1	COCOA	FL	32922		(407)4544746
SATKOWSKI	JOHN	2027 HAWAII AVE N.E.	ST. PETERSBURG	FL	33703-3419		8135266552
WOOLDRIDGE	HARRY	18450 73rd PLACE	MCALPIN	FL	32062		8138473499
GLOVER	JAMES	479 SO. HILLCREST DR.	MARIETTA	GA	30064		7704276450
LANDWEHR	MARK	94-111 makoa st.	WAIPAHU	HI	96797		8086773328
RIEFP	MICHAEL	10301 HALL RD	CEDAR RAPIDS	IA	52411		3193930562
SEVERN	EUGENE C.	401 NO. LAWLER BOX 327	POSTVILLE	IA	52162		
HORNE	CHRIS	1802 W. INDIAN RIDGE DR	MCHENRY	IL	60050		8153638931
LIND	PETER	27575 HENRY LANE	BARRINGTON	IL	60010		8473810831
MARKLEY	JOHN	840 ELDER UNIT #210	HOMWOOD	IL	60430-2549		7089571613
SHEETS	LYNN	34 PRENZLER	BLOOMINGTON	IL	61704		3096620062
SZCZYPTA	KARL	23W431 MORaine CT.	NAPERVILLE	IL	60540		6304166100

Last	First	Address	City	ST	Zip	Country	Phone
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VANDER WOU	PAUL	621 SO. ASHLAND	LA GRANGE	IL	60525		7083543417
WEINSTOCK	STEVEN	186 LARCH	ELMHURST	IL	60126		6308325283
HAMMERSMIT	MARTY	1777 OAKRIDGE DRIVE	LAWRENCEBURG	IN	47025		8126372122
WISZ	JIM	2904 EAST U.S. 30	VALPARAISO	IN	46383		2194651741
ENGEL	DON	5360 SO. HOOVER ROAD	WICHITA	KS	67215		
QUIRE	GREGORY S.	886 MT. ZION ROAD	FRANKFORT	KY	40601		5028751741
EILTS	BRUCE E.	2924 ORMOND AVE.	BATON ROUGE	LA	70820		5047692755
LEBRON-BER	ALFONSO	315 CAMBERLY CL.,AUSTIN C	LAFAYETTE	LA	70508		
WATTS	GLENN	3721 GREEN LEAVES DR.	SULPHUR	LA	70665		
BERNARDO	FRANK	929 PINE HILL RD.	WESTPORT	MA	02790		5086368801
HOLMES	ERNIE	519 E. RIVER ST #71	ORANGE	MA	01364		9785448140
FITRELL	STU	25723 VISTA ROAD	HOLLYWOOD	MD	20636		3013738087
MC KEEN	DAVID	20630 DEER WOOD PARK DR.	LEONARDTOWN	MD	20650		3014753691
KELLER	JOEL	176 FOUNTAIN STR.	BANGOR	ME	04401		2079459973
ALLEN	ERIC	18530 MACK AVE. #249	GROSSE PIONTE F	MI	48236		3133725145
DAVIS JR.	CHARLES	499 FURNACE STREET	MANCHESTER	MI	48158		7344289369
DECKROW	RODGER	7811 OAKMONT COURT	ROCKFORD	MI	49341		5174633735
NULL	MATT	3330 GOAT PELL CIRCLE	ANN ARBOR	MI	48108		3139752317
THOMAS	GERALD B.	27604 MORNINGSIDE PLAZA	LATHRUP VILLIAG	MI	48076		8105593746
YODER	JACKIE D.	2760 YODER	MIDLAND	MI	48640		5178322012
CHRISTIAN	JIM	128 EAST RICE STREET	OWATONNA	MN	55060		5074516502 wk45572
GOLTZ	JOEL	RT.#3 BOX 205	NEW ULM	MN	56073		5073545480
WUORINEN	BILL	7904 CONROY WAY	INVER GROVE HTS	MN	55076		6124556936
EDSON	WAYNE	P.O. BOX 812	BRANSON	MO	65615		4173346128
VIETS	BRET	115 WEST BENTON	BUFFALO	MO	65622		4173452966
RULE	WALLACE	504 ANSON DRIVE	FAYETTEVILLE	NC	28311		9108229548
VALGREN	GORDON	2300 2ND AVE NW	MINOT	ND	58703		7018397258
BERRICK	WILLIAM	11803 HUNTERS COVE	OMAHA	NE	68123-1119		4022926832 also fa
GUGLIELMI	PAUL M.	P.O. BOX 64880	ROCHESTER	NY	14624		6388800
KILBY	C. ROBERT	862 1/2 FIRST AVE	GALLIPOLIS	OH	45631		6144464939
FERRELL	DENNIS	2613 AUSTIN CT.	STILLWATER	OK	74074		4053723424
MOUNT	CHRIS	5195 DUNNING RD,R.R. #3	NAVAN	ON	K4B 1J1	CANADA	6138353249
BAKER	CASEY	P.O. BOX 21351	EUGENE	OR	97402-0406		3454657
CATHCART	RON	229 S.E. 2ND STREET	TOLEDO	OR	97391		5413362947
GORGAS	HENRY	P.O. BOX 692	CARLTON	OR	97111		5038527378
MITCHELL	EDWARD	13835 S.W. DEVONSHIRE	BEAVERTON	OR	97005		5036465276
GRIEB	KENNY A.	225 FORSYTHE RD.	MARS	PA	16046		4126259202
LOCKMILLER	ROBERT	231 MARTIN SCHOOL RD.	PICKENS	SC	29671		8648689431/8435303
WINTER	CHARLES	437 LYNDHURST ROAD	COLUMBIA	SC	29210		
COLOMBE	GEORGE	RR #1 BOX 87	WENTWORTH	SD	57075-9607		6052564335 also fx
NADIG	RICHARD E.	5334 PEGHORN TRAIL	OOLTEWAH	TN	37363-8670		4233962917 4078971
BOUDREAUX	GARY	508 MEADOW OAK CT	EL PASO	TX	79932		9155816357
CRUTCHFIELD	JOE	109 NICKLAUS NOOK	LANCASTER	TX	75146		9722272282
DANIEL	MICHAEL	6706 PECANWOOD DRIVE	ARLINGTON	TX	76017		8174671888 mpdanie
POWLER	ROB	741 1/2 COLUMBIA	HOUSTON	TX	77007		
GEROW	DENNIS	1805 RIDGEMONT DRIVE	AUSTIN	TX	78723		5129284928 w389469
GOODIER	GENE W.	1935 SHIELD DRIVE	NEW BRAUNFELS	TX	78130		8306200405
LAMBERT	JOHN	P.O. BOX 92201	AUSTIN	TX	78709-2201		5123963171
MANN	SID	7710 MESA DR.	AUSTIN	TX	78731		5123456128
MAUK	GLENN R.	109 MEADOWS DR.	BURLESON	TX	76028		8174470400
REINHART	C.J (John)	6812 TOLEDO CT.	PORT WORTH	TX	76133-5440		h8172949451w817962
SOKOLICH	STEVEN	4308 LAVACA DRIVE	PLANO	TX	75074-3555		

Time to Renew!

Hello Gang!

First off let me apologize for this very late issue of GP4BFN. It has been a challenging last thirty days! Because of some out of town work responsibilities, I needed to wait until the week of Christmas to start production of GP4BFN #23. As I started putting things together for the newsletter, things started to fall apart (Computer wise). Every time I turned the computer on, something quit working or dis-appeared! Then I couldn't get anything to even re-load. To shorten up a long story..They say I must have down loaded some type of virus and everything had to be re-formatted and re-loaded. Again I deeply apologize for the delay.

Issue #23!! It doesn't seem that long ago since we did the first issue. Volume #1 was March - April of 1995!

The newsletter will continue to be published six times a year for \$20.00, Canada \$23.00 and Overseas/Airmail will be \$30.00.

We also have all the back issue available. Just list whatever one(s) you need on the renewal form and add \$3.00 per issue.

Mail your renewals and newsletter submissions to:

Bill Spornitz,
1112 East Layton Drive,
Olathe, KS. 66061

You'll also find a renewal form enclosed

Very Best Regards,

Spud Spornitz

GEORGE'S CORNER



Fellow GP-4 builders:

Some of you may be getting close to fitting an exhaust system to your Lycoming IO-360. The exhaust system shown on drawing 57 has worked quite well on my prototype for the past 700+ hours. The four-pipe design did not come easy. I first started with a cross over system. It was made from very expensive 231 stainless tubing, 1 3/4" diameter. I spent about \$1800.00 with six slip joints and many elbows to get it fitted in the shallow GP-4 cowl. The two crossover tubes that cross under the oil sump, caused so much heat that my oil was running over 250 degrees. With all of the slip joints, the thin stainless tubing (.035 wall) cracked in several places after less than four hours of flight time. To get back in the blue, I welded up the four pipe design from mild steel 1 3/4" tubing. The elbows and slip joints I bought from a local hot rod store. If I remember correctly, it was less than \$50 in 1983. I used four MILD STEEL exhaust flanges, available from Wicks or Spruce, 4 slip joints and 4 U shaped units that will give you 2 elbows per unit. This mild steel tubing is about .050 thick and cadmium plated. The plating will burn off so I bead blasted the four pipes and painted them with a high temp paint

after all the welds were completed. I fitted the elbows and straight sections with the engine mounted and the exhaust outlets on the bottom of the firewall in place as shown on drawing #57.

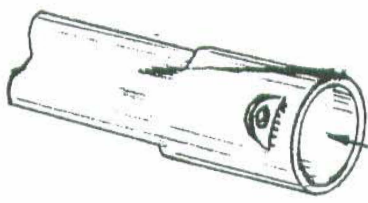
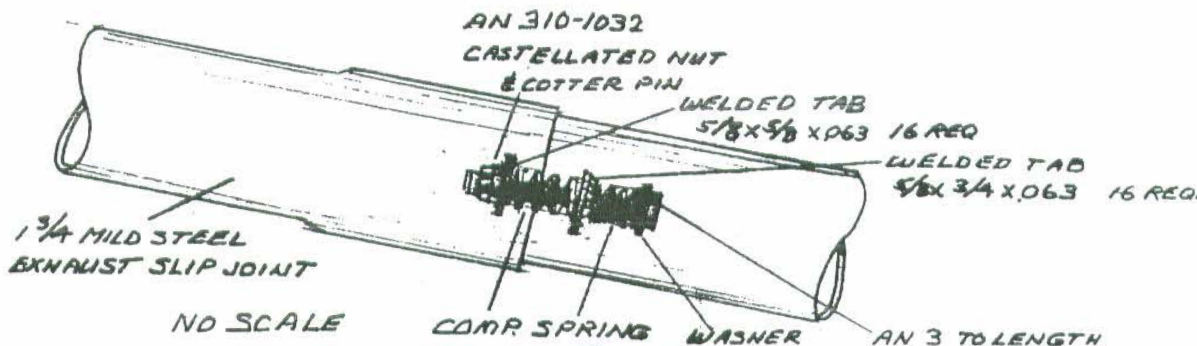
You start by bolting the flange with gasket to the cylinder. I like the metal blow-proof #77611 gaskets. The first section of tubing is pressed into the flange. If you are sure that it is the correct, you can carefully unbolt the flange and tack weld the tube to the flange in a couple of places. I welded the tubing to the flange on the inside. This will give you room for the nut and a socket wrench for bolting the flange to the cylinder. You set the tube about 1/16" below the flange surface and run a bead around the inside of the flange hole. I surfaced each flange on a belt sander for final attachment.

The next section is butt fitted and masking taped together until you have routed the tubing from flange to exhaust outlet at the firewall. You are now ready to remove the masking tape one section at a time and tac weld each section. You can now take the entire unit off and finish welding each section. In routing the pipes, you can get as close as 3/16" to any of the four intake tubes. You do need room for vibration and avoid heat transfer to these tubes.

After several modifications, I finally found a slip joint connection that works well. The exhaust hanger was also a problem. Both designs shown in the accompanying sketch works well.

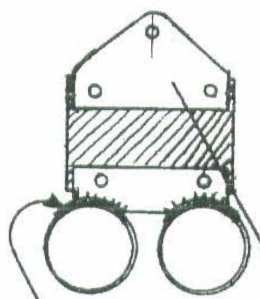
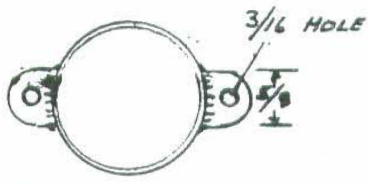
Regards to all,

George



SLIP JOINT CONNECTOR

AN 3 TO LENGTH
 COMP SPRING WASHER ABOUT 3/8 TO 1/2" DIA.
 AVAIL. HARDWARE STORE
 16 REQ.



FOLD UP ALUM CHANNEL AROUND BELTING



TO ENG MOUNT TUBE

BELTING OR HARD RUBBER CORD MATERIAL ABOUT 1/4" THK.

AN-3 BOLTS
 SAFTY WIRE HOSE CLAMP TO BRACKET

ADJUST HEIGHT AS NECESSARY

MAKE FROM 1 3/4 DIA. EXHAUST TUBING

HOSE CLAMP 4 REQ

NOTE:
 COMP SPRINGS SHOULD BE QUITE STIFF. COMPRESS ABOUT 3/16" TO 1/4" WITH AN-3 BOLTS.
 CHECK BOLTS FOR WARE IN TAB HOLES. INSTALL NEW BOLTS AS NECESSARY. THE PROTOTYPE BOLTS WERE CHANGED AT ABOUT 400 HOURS. SUGGEST ORDERING EXTRA SET AFTER DETERMINING LENGTH.

GP-4

EXHAUST SYSTEM
 NO SCALE
 DESIGN: OSPREY AIRCRAFT
 NEWS LETTER COPY

The Classifieds

For Sale: New Hydraulic Gear Plans Upgrade. Convert your GP-4 manual landing gear system to hydraulic - electric system. Complete with emergency back up system. (Note: System must be installed prior to wing skinning!, no retro-fits) Complete print package for \$150.00 Mail your checks to: George Pereira 3741 El Ricon Way, Sacramento, California 95864 phone (916) 483-3004 Fax (916)978-9813 E-mail GP-4@juno.com

For Sale: Pre-fabricated composite components for GP-4. Cowling , exhaust blisters, inlet ramps, tailcone . Complete four-piece package. Call or E-mail for current pricing. Shipment will be sent "Freight Collect" - Jake Jackson - Rio Linda, CA (916) 992-0608 E-mail J7200@aol.com

For Sale: Quality custom fabricated metal components for your GP-4. See GP4BFN issue #4 for complete component listings and pricing. Please allow generous time allowances for your orders. Darry Capps, 813 Hoyer Road. Newman, California (209) 862-2707

Back Issues: We have all of the GP-4 back issues (#1 thru #23) available for \$3.00 each. Mail your checks to Bill Spornitz - 1112 East Layton Drive - Olathe, KS 6061-2936

Wanted: Looking for a GP-4 project that is "well under way" through "close to being finished". Will consider all projects. Contact me at (503) 646-5276 or by mail at Edward Mitchell, 13835 S.W. Devonshire, Beaverton, OR 97005

Wanted: An original video (not a copy!) that George Pereira made on the GP-4. I have a multi-copied video now, but is very poor. Will gladly pay a reasonable price. Contact: Spud Spornitz (913) 764-5118 or 1112 East Layton Drive, Olathe, Kansas 66061

Subscribers Information Center

GP-4 Builders & Flyers Newsletter (GP4BFN) is currently published Bimonthly at a rate of \$3.00 per issue/\$18.00 a year in U.S. \$3.33 per issue/\$20.00 a yr. in Canada, Alaska & Mexico. \$4.83 per issue/\$29.00 a yr. (U.S. funds) per 6 issues to foreign subscribers. Send remittance to: GP4BFN, 1112 Layton Drive, Olathe, Kansas 66061. **PLEASE MAKE CHECKS PAYABLE TO: BILL SPORNITZ**

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Letters, Pictures and computer supplied data submitted to GP4BFN are subject to final screening by GP4BFN / Bill "Spud" Spornitz and may be restricted, deleted or revised. Material returned by request only.

Classified advertising; (non-commercial) for current subscribers may place an ad of 50 words or less for \$6.00 per issue, with one photo an additional \$14.00. Back issues of "GP-4 Builders & Flyers Newsletter", back issues are available for \$3.00 each.

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913-764-5118

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E-mail GP-4@juno.com

The Grin Department!

On Sept 29th 1998

The photographer for a national magazine was assigned to get photos of a great forest fire. Smoke at the scene was too thick to get any good shots, so he frantically called his home office to hire a plane.

"It will be waiting for you at the airport!" he was assured by his editor.

As soon as he got to the small, rural airport, sure enough, a plane was warming up near the runway. He jumped in with his equipment and yelled, "Let's go! Let's go!" The pilot swung the plane into the wind and soon they were in the air.

"Fly over the north side of the fire," said the photographer, "and make three or four low level passes."

"Why?" asked the pilot.

"Because I'm going to take pictures! I'm a photographer, and photographers take pictures!" said the photographer with great exasperation and impatience.

After a long pause the pilot said, "You mean you're not the instructor?"



**1112 EAST LAYTON DRIVE
OLATHE, KANSAS 66061**

NEWS FOR CRAFTSMEN OF FAST WOODEN AIRCRAFT!