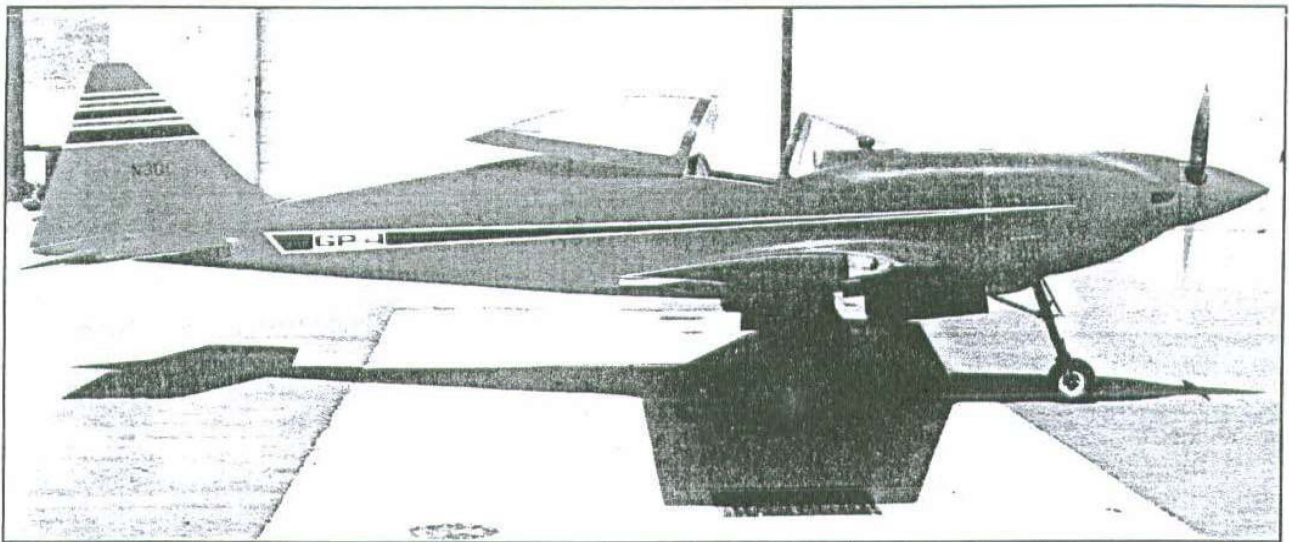




THE OFFICIAL VOICE OF GP-4 BUILDERS ALL OVER THE WORLD

Volume 31

Second issue of 2000



Darry Capps' GP-4 at Florence, CO for a builders visit

Editor's Corner

Gentlemen,

Pull up a chair and lets take a moment to talk about newsletter and its supposed mission. The mission is to receive and re-distribute information in regards to the construction, flight testing, flying, the maintenance and the social side of the GP-4 for 125 + builders, flyers in 10 different countries around world. It is an open forum between builder and builder, Osprey Aircraft and the builders to exchange any and all

information in regards to the GP-4.

So what's the Problem?.....The lack of contributions from the builders and GP-4 pilots in the group!!!

Now don't get me wrong we have had several people that have given excellent ongoing updates and articles (Thanks CJ and George).

Come on guys, this isn't my newsletter, nor is it really George Pereira's of Osprey Aircraft's newsletter. It's your newsletter!!! Sure you pay me \$20.00 a year to assemble and deliver six issues a

yea,. But, ASSEMBLER, unless you folks rustle up stuff, I got nothing to put together for you! Its a group project!

There are all sorts of things to share with the group:

- Building progress reports.***
- Construction techniques, how did you do it?***
- Engine and prop- service problems and their fixes.***
- Builders visit reports.***
- Flight testing - good and bad.***
- A new product reports.***
- Trips flown in GP-4's.***
- Flying techniques.***

Technical questions - technical answers.

I take several other experimental newsletters: The RVator (RV series), Central States (Long-EZ, Cozy series), Q-talk (Quickie series), The Bearhawk and Tailwind newsletter, and I must say these guys are running circles around you guys.

Has the Internet made us "Contributing Lazy", I hope not, but it may have dampened some. Now there is a few GP-4 websites and now the "GP-4 list" info exchange which is excellent for instant answers to questions (I hope more come to use it!). Some GP-4 builders assume that "Everybody" is on the net, Big time - wrong - O". I did a little homework here a few months back and contacted quite of builders that I thought were not on the net. It worked out to about half were "not" on the net, at least regularly, some were on but got off for numerous reasons. Hey, maybe some day done the road we will all be electronically hooked, but until then, the newsletter will continue to be in hard copy form.

Also effective immediately there is no longer a charge for any classified ads (Non-commercial) for all current subscribers. Non-subscribers will be at my discretion. The ads will automatically run for two issues. No perpetual.

So Gentlemen, (Yes..YOU), Let's get off our duffs and get some input coming in to the newsletter. I need your help, I am not a magician. Without this ongoing input we have nothing! The future of the newsletter is up to YOU! Without an increased amount of information I'll be force to take to quarterly or stop publishing all together. This would be as crime as I know there is a ton of you guys out there with mountains of information and knowledge to share with the group. If I didn't know about what was out there to be shared with the group I would not of said anything....

Very Best Regards,

Spud "The Cupboards are bare!" Spornitz

The "Lady in Red" getting closer!

Hello Spud and my fellow GP-4 builders,

Here are the latest pictures of "Lady In Red".

I am making good progress finishing up the numerous little things that has to be done. Checking and re-checking everything to make sure it is right

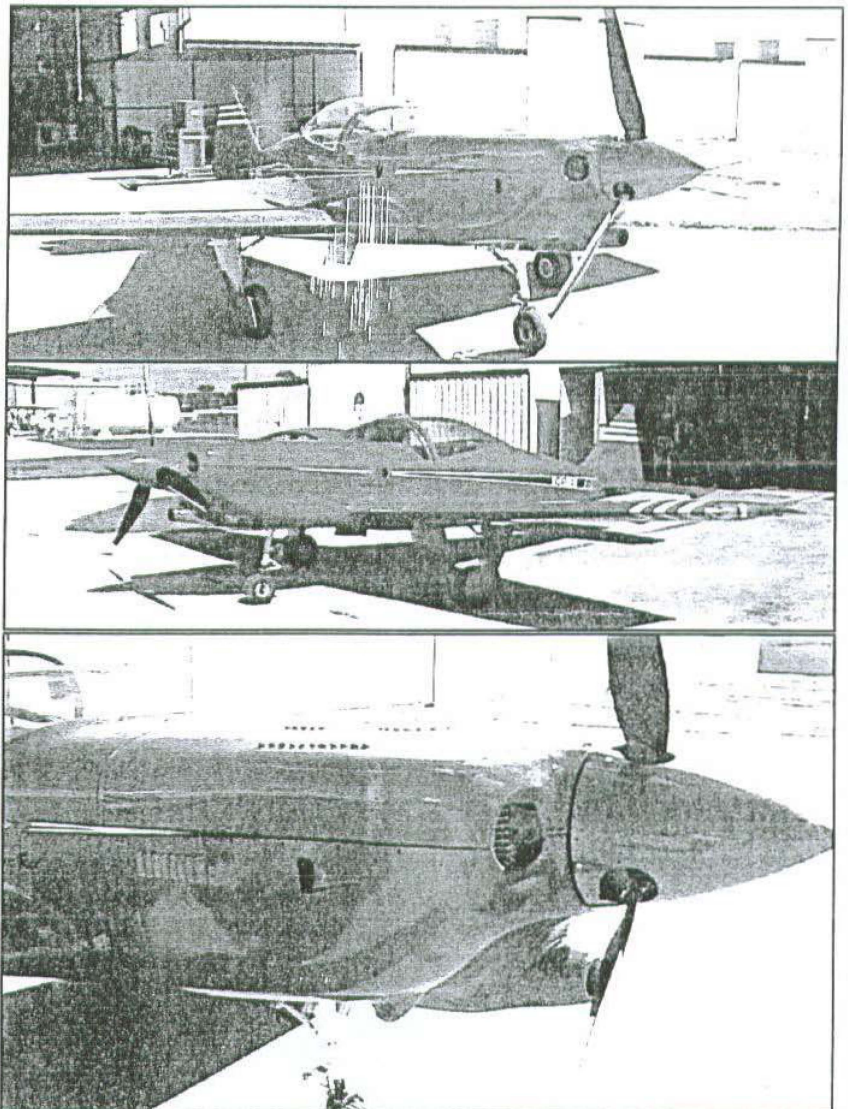
I am getting closer and closer to finishing a 12 year project. Finally!!

I should be ready for FAA inspection by March and hopefully get the air-

worthy certificate needed to go flying. Got lots of testing to do before I take her to the air. I will keep everyone posted as thing progress

Tom Evans,
Lake Wales, Florida

If you remember from a previous newsletter Tom has installed a Buick V-8 in his GP-4. I am really looking forward to get some performance comparisons on the Buick vs the Lycoming. - Spud



MULTICOM!

An update on cylinder availability and a builder progress report.

Hello George, Spud and GP4 builder's

Thought I would give our builders some info on the hydraulic cylinders and the main link bearing availability. I have been providing gear cylinders for builders over the last few years and will continue to do so. Builders can save even more money if they have a local hydraulics dealer that can order directly from PHD. If builders will contact their local hydraulics dealer and give them these part numbers, it would take just a couple of weeks or less for delivery, saving them time and money. The part numbers are:

Main Gear- PHD cylinder
ML183725
Nose Gear- PHD cylinder
ML198790
Oildyne Pump-
#108AM19BL-3HT

Machine shops and businesses that manufacture machines and automation can source these cylinders as well... just give them the PHD- ML numbers. Certainly I will continue to provide cylinders for builders who have difficulty locating a supplier.

I also have a friend who owns a CNC machine shop in Darlington, South Carolina and is presently making the main link bearings for the hydraulic gear. Since he will have this programmed into his equipment, builders can contact me or they can contact Brown & Rogers Automation/Arrowhead CNC directly for these parts. Arrowhead CNC can be reached at 843.395.6655, ask for Byron and mention my name so he'll cut you a good deal. All the guys at Automation and Arrowhead are pilots and builders as well.

I have been working on my GP-4 project for seven years now. Presently the fuselage and tail group is complete and ready for primer. The wing structure is complete with hydraulic gear and control system installed. I am building a wet wing fuel

system and should have the wing complete by summer's end. I have about 2000 hours into the project so far.

I saw my name and address in the 6th Issue of 1999 newsletter. There are a couple of typos on my address. The correct address is:

Don Austin
220 East Dunedin Road
Columbus, OH 43214
614.447.9478
daustin@otterbein.edu

Sincerely, Don Austin

A new web-site and GP-4 discussion group

I would like to invite everyone to join our small but growing GP-4 email group. The idea behind the list is to be able to quickly communicate with other builders and pilots of GP-4's. The list is un-moderated, we welcome all questions, solutions, anecdotes, etc. that are reasonably related to our plane of choice, and we of course would like to have as many builders, pilots, or just plane interested people as possible. We look forward to seeing you soon!

Visit this lists home page at:
<http://GP4.listbot.com>

Sincerely,
Ted Fontelieu
Mesquite, TX

A builder update

Hi fellow GP-4ers

My GP-4 doesn't look like an airplane yet, I am in the USAF stationed in Japan until now and couldn't build anything but individual parts. I am going to use an IO-360A1B6 motor with high compression pistons. I also switched to the hydraulic gear. I have made most of the parts that I can while over here ribs, bulkheads, formers and almost all the small metal parts. All the welded and machined parts I bought from Darry Capps before he retired from making GP-4 parts, the parts are first rate better than anything I could

make. I will be able to get back to building sometime this June or July of this year when I finally move back to the states. I don't know if everyone knows this but Wicks gives a 10% discount on anything bought at Oshkosh which can add-up. I bought all the kits that Wicks list and saved about \$2K. You could probably find the materials at other places cheaper if you did allot of legwork shopping around but the convenience of having it all delivered at one time the correct size and spec made it worth it to me. Anyway enough rambling, I am glad to see the list get started it will be a good thing for the GP-4 community, it should grow as the word gets out, if talking to people at Oshkosh is any indication. Before coming to Japan I had visited 10-15 GP-4 builders in my travels around the U.S. and have seen varying qualities of workmanship, by having the ability to ask questions and get answers from a diverse field of builder knowledge I think it will raise the level workmanship. It's also good to find out what mods people have tried that worked and those that didn't.

Mike Haugen mhaugen@hotmail.com

Panel and fuel cap engraving...

Hi GP4er's,

I wanted to pass on something I've found really handy and I'm sure will be of use to many others. Steve Davis of the Panel Pilot offers an exceptionally nice Fuel Cap Engraving service where he will engrave the octane requirements into your aircraft fuel caps. I find this particularly nice because I then don't have to put those cheesy circular octane stickers around the fuel tank filling ports. I sent my caps to Steve and received them back in a week. A very nice service that is quite affordable and one that I would highly recommend. Steve will actually engrave just about anything, and also offers a Instrument Panel cutting service that is top notch. Steve's Panel Pilot web page can be found at:
<http://members.aol.com/panelcut>
or you can email him directly at:
panelcut@aol.com

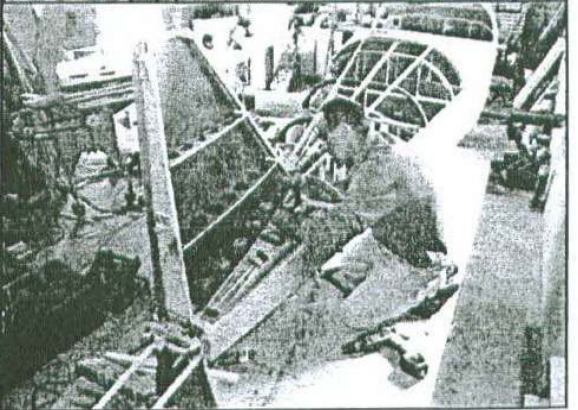
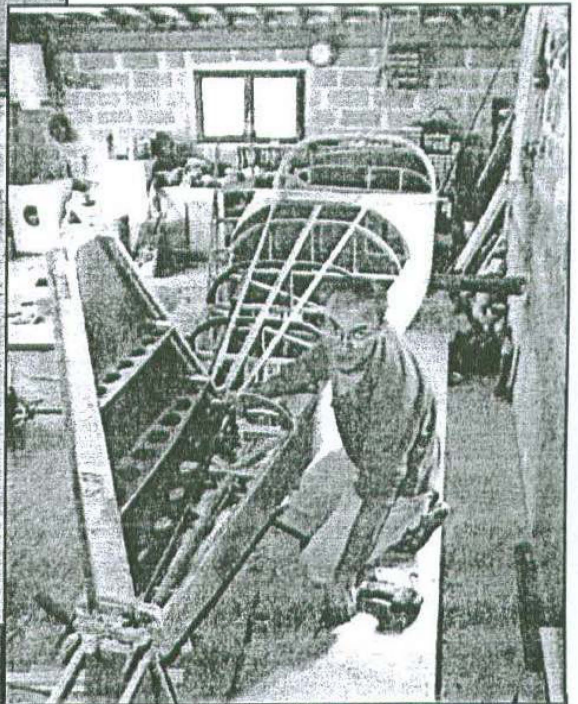
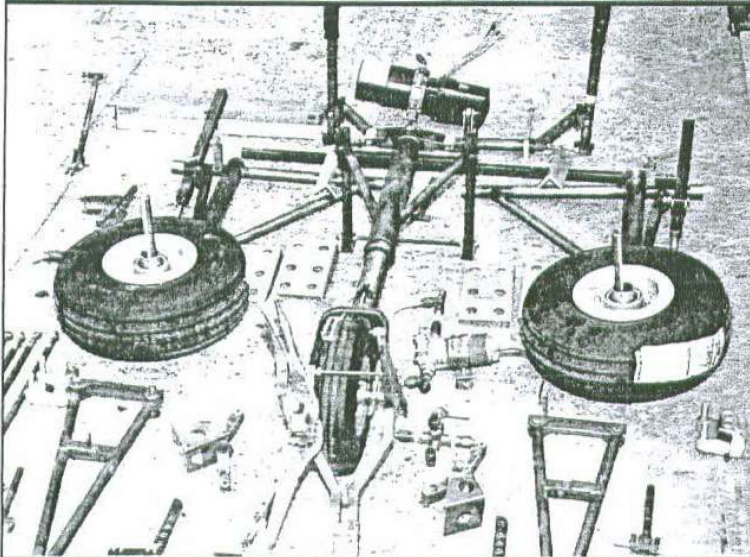
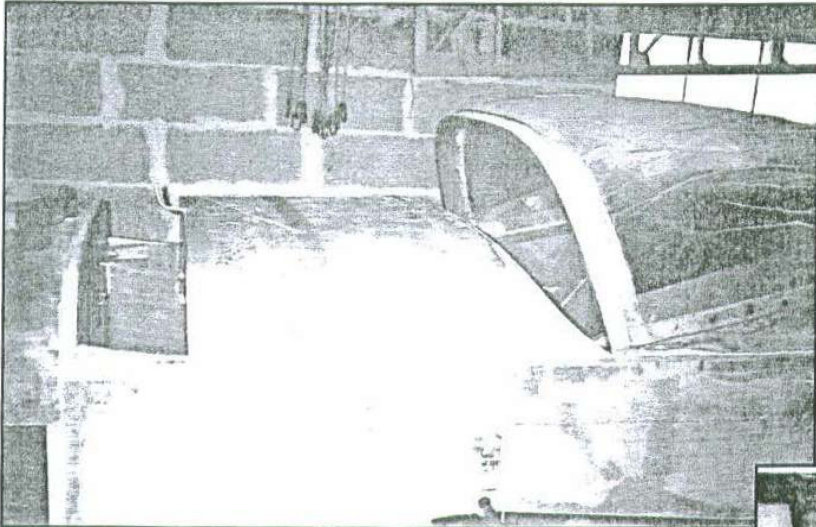
Best regards to all,
Matt Dralle

Multicom cont'd on page 6

Great progress from Jean Claude Luxey of France

GP-4 plansholder #323,
Jean Claude Luxey of
Bicarrosse, France mak-
ing some superb
progress.

Thanks for the photo
progress update. - Spud



GEORGE'S CORNER



Fellow GP-4 builders;

Spring has finally sprung after a wet winter here in the Sacramento area. Spring here means some rain and high north winds. If you fly much in spring you do get some cross wind landing practice. I am always delighted how well my GP-4 handles these cross wind landings. The higher wing loading, (compared to Cessna, Piper, etc), and the tri-gear helps a lot. But our greatest asset is the high responsive roll rate in gusty crosswinds. It's easy to maintain a stable cross wind approach and, if necessary, touch down on one wheel, due to the light responsive ailerons.

In winds gusting to 30 mph I never use any flaps. With winds in the 20s I might use half flaps, 10 to 15 degrees. The no flaps or partial flaps approach helps stabilize the trip down the glide slope when it's gusty. The steerable nose gear is a great asset in cross wind take offs. I steer down the center line, holding the nose gear on until I see about 85 to 90 mph. You then have adequate air speed if the plane want to weathercock on lift off. With the gear up you quickly accelerate to a 120-mph climb. If you are light you will be looking at 3,000 fpm. You will have to lower the nose for traffic visibility. As you are setting up climb power, 26" square, 170 to 180 mph will give you decent, over the nose

visibility in your climb. I never use flaps for take off in gusty wind conditions.

Hartzell Propellers:

I recently received a letter from Hartzell stating they can now give a faster shipping date. Perhaps we won't have this 6-month delivery problem anymore!

The new year 2000 price is as follows: Prop #HC-M2YR 1BF/F7666A-2/SM4 is \$5,795 Spinner #C 3568 is \$610. These items go up about 6 to 10 percent each year. Don't ask why! My guess is product liability.

GP-5 Update:

(See newsletter vol. 14 also see May 1993 Sport Aviation)

When the unlimited racer, the GP-5, was discontinued due to finances and other problems, it was sold to a local gentleman, George Bacovich. George is a very knowledgeable hot rod engine man. He has built up an aluminum small block 450 cubic inch V-8 that he says dynoed out at 500 hp. and 5500 rpm.

One of my main concerns was the planetary gear reduction unit. The bearings were marginal in a six-G turn, swinging the big 95 pound 3 blade Hartzell. He has re-engineered and rebuilt this unit. He now feels it has a 2.5 to one safety margin. I hope so!

The airframe is in the painting stage; however, there is a lot of engine testing etc. to do before flight-testing. George says he will try to fly this year. I will keep you posted.

Electronic Ignition:

In 1997 I installed electronic ignition

on one side of my IO -360 Lycoming. One side, meaning I retained the left magneto with the impulse starter. I removed the right mag and replaced the electrical source with a solid state electronic ignition from Light Speed Engineering, which they call Plasma CDI-4 (Capacitor Discharge Ignition for 4 cylinder Engine.)

I have admired the designer, Klaus Savier, for several years with his Vari EZ speed mods and ignition design. It has been trouble free these past 3 years and I average over a gallon of fuel per hour less with the same power settings. The CDI system provides optimum ignition timing. The wide curve extends from 15 degrees to 42 degrees BTDC. After starting, the system advances according to RPM and manifold pressure. The much hotter spark, which is about 40,000 volts compared to 15,000 volts of the mag, provides a more efficient burn cycle. Klaus recommends long reach auto spark plugs for the top plugs, which are fired by the CDI. He uses an 18-mm insert in the plug hole that reduces the thread size to 14 mm for the long reach auto plugs.

Here are the advantages of electronic ignition as I see it:

- 1.- Better fuel economy: 1 to 1.5 gallon per hour less.(Same power settings)
- 2.- Reliability: No moving parts to wear. All solid state.
- 3.- Plugs seem to last forever, and cost \$5 each.
- 4.- Engine runs smoother with more power available.

My cost in 1997 for the entire kit was \$1,066. Klaus continues to improve his product. Anyone interested, contact Light Speed Engineering, P.O. Box 549 Santa Paula, Ca. 93061 phone - 805-933-3299 fax - 805-525-0199

Regards to all, George

Mike Haugen's comments on the NTSB's final report of the Bill Berrick / GP4 accident

(From: <http://GP4.listbot.com>)

The report doesn't specify a cause but if you new Bill and the way he flew the plane it would appear that he was distracted from flying the plane, with getting the gear retracted stalled and spun in. I had only met Bill twice and saw the plane fly 3 times, it was a beautiful plane. He said that the only difficult part of flying the plane was getting the gear up quick enough, said he just wasn't strong enough to get the handle locked if speed was up around 100 kts. Bill said that there was nothing wrong with the manual system it's just that he was not as young or as strong as he use to be, plus he said he had short arms and sometimes needed to pull his butt out of the seat to put all his body weight on the gear handle to lock it into detent, the last 20-30 deg of travel for the gear to be up and locked was the hardest. At Oshkosh there was allot of discussion about the accident and the gear, both designs are good and sound with pros and cons for each which ever you chose

the bottom line is you have to try the plane first everything else is secondary.

I think there are only 2 GP-4s currently flying with hydraulic gear Jack Jackson, CA & Pat Salamon in FL. I have seen both planes and if I remember correctly they are modified manual systems with a hydraulic actuator in place of the gear handle. Mike Traud in Calif is probably the furthest along with the hydraulic gear George designed.

I almost stayed with the manual gear as its, less complex, lighter, cheaper and no backup system needed I also liked the built-in speed brake, just pop the handle out of the detent and let the gear hand until your slow enough to fully extend them. But in the end I decided on the hydraulic system, flip a switch and watch for the green lights. Its only when you don't get green lights that you have something to worry about.

Mike Haugen
Tinker AFB, Oklahoma

Cable Supports

GP-4er's

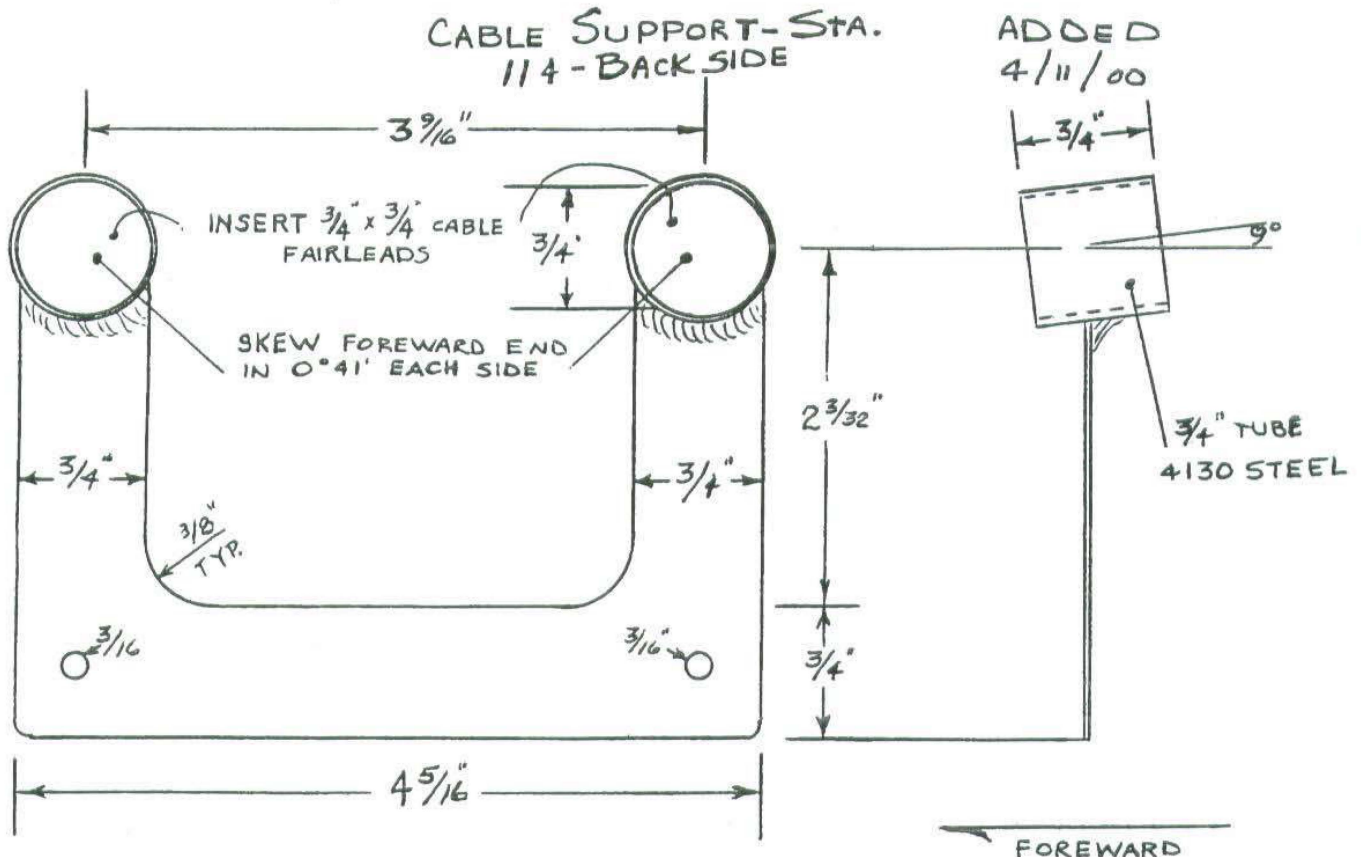
I've been reading Tony Bingelis' stuff on home built aircraft. He suggests that all cables have support every two feet or so. I made the support as shown to go on the backside of station 114 +/- . As the orientation of the cross member which supports this bracket changes with individual construction techniques, the angle shown as 9 degrees will change some. Each case will be different.

Also, per Tony Bingelis I am running a 1/4" braided bonding strap / Ground loop, and tying in all metal hinges. I will also be adding wicks to discharge static off the wing and elevators.

Best Regards, Jim Rusch
New Richmond, WI
Plans #402

Target date - Oshkosh 2001!

Jim's drawing below



The Classifieds

For Sale: GP-4 project: fuselage framing, vertical stabilizer framing, horizontal stab and elevators framing complete. Firewall installed. All fuselage internal hardware complete (D. Capps). All wood packages, two fastener kits. Project signed off by EAA Tech Advisor with compliments on construction quality. Fuselage signed off for closure. Stu Fitrell, sfitrell@ixpk.veridian.com or (301) 373-8087 or 25723 Vista Road, Hollywood, MD 20636. (27/28)

For Sale: GP-4 project - Most wood materials to complete. Most metal parts cut-to-fit and tack welded. New hartzel prop and spinner to George's spec's. Contact Tony Mikus in the evenings after 5:30 PM mountain time. (970) 963-9575 (27/28)

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 jake-jackson@jps.net

Back Issues: We have all of the GP-4 back issues (#1 thru #29) 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

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913-764-5118

E-MAIL BSPORNITZ@AOL.COM

George Pereira
Phone (916) 483-3004
Fax (916) 978-9813
E-mail **GP-4@juno.com**

The Grin Department!

Grin # 1

"Flight 1234," the control tower advised, "turn right 45 degrees for noise abatement."
"Roger," the pilot responded, "but we're at 35,000 feet. How much noise can we make up here?"
"Sir," the radar man replied, "have you ever heard the noise a 727 makes when it hits a 747?"

Grin # 2

Taxing down the tarmac, the jetliner abruptly stopped and returned to the gate. After an hour long wait, it finally took off.

A concerned passenger asked the flight attendant, "What was the problem?"

"The pilot was bothered by a noise he heard in the engine," he explained. "It took us awhile to find a new pilot."

Grin #3

This is the transcript of the ACTUAL radio conversation of a US Naval ship and the Canadians, off the coast of Newfoundland, Oct. 95. -- Radio conversation released by the Chief of Naval operations 10-10-95.

Canadians: Please divert your course 15 degrees to the South, to avoid a collision.

Americans: Recommend you divert your course 15 degrees to the North, to avoid a collision.

Canadians: Negative, You will have to divert your course 15 degrees to the South to avoid a collision.

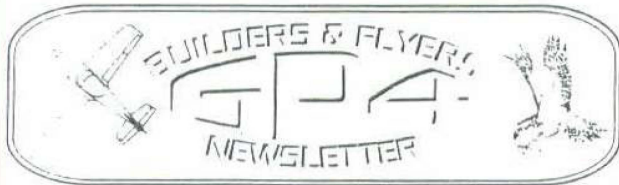
Americans: This is the Captain of the Navy ship. I say again, divert YOUR course.

Canadians: Negative. I say again, You will have to divert your course.

Americans: THIS IS THE AIRCRAFT CARRIER USS LINCOLN. THE SECOND LARGEST SHIP IN THE UNITED STATES ATLANTIC FLEET. WE ARE ACCOMPANIED BY THREE DESTROYERS, THREE CRUISERS, AND NUMEROUS SUPPORT VESSELS. I SAY AGAIN, THAT'S 15 DEGREES NORTH, OR COUNTER MEASURES WILL BE UNDERTAKEN TO ENSURE THE SAFETY OF THIS SHIP

CANADIANS: We are a lighthouse. Your call.....

Remember: I don't write these words of wisdom, I just pass them on down the line - Chuck Kaplan, Walpole, MA



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

First Class Mail

NEWS FOR CRAFTSMEN OF FAST WOODEN AIRCRAFT!