

# monink

The Newsletter of Monnett Experimental Aircraft, Inc.

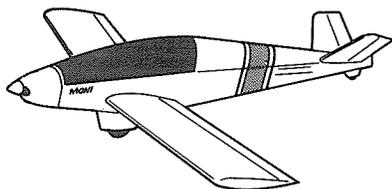
May, June 1983

Dear M.E.A. Friends,

Our Monnett Fly-In is fast approaching! There does seem to be a little confusion as to the exact date. Our Fly-In Picnic will be **Saturday, June 25th** with the rain date being Sunday, June 26th. The E.A.A. Ultralight Fly-In runs Friday, Saturday, and Sunday and we will be open from 9-5 all three days. We will be participating over at the Fly-In site on Friday and Sunday. John gives a forum over there on Sunday at 1:30. Our Saturday Picnic is meant to be a fun day for you to fly in with your airplane and join with other MEA builders for some fly-bys or whatever. There is going to be an AirShow at the fly-in site on Sat. from 3-4:30 and we will try to organize you all to do some fly-bys during this time and be a part of the airshow! Please do call or write and let us know by Thursday, June 23rd if you are coming and bringing your airplane so we can plan accordingly. All Monarais, Sonerais, and Monis Welcome!! Just taxi right over to our building.

Oshkosh plans are progressing rapidly. Dates you probably already have marked on your calendars - July 30th thru August 6th. Our Builder's Party will be Saturday, June 30th here in the hanger showroom. For those of you who are new this year to M.E.A., perhaps I should explain. Annually at the Fly-In we have a get-together/party just for our planholders. This is our way of thanking you for your business. It is always great fun to talk with fellow builders and we supply the place, food, and drink! We will also be giving out awards to anyone who brings in a Monerai, Sonerai, or Moni to the show. John will be giving forums here at the building at 9:00 on Sunday, Monday, and Wednesday. Our shuttles will be running again this year. More details on everything next Monink - due out the first part of July!

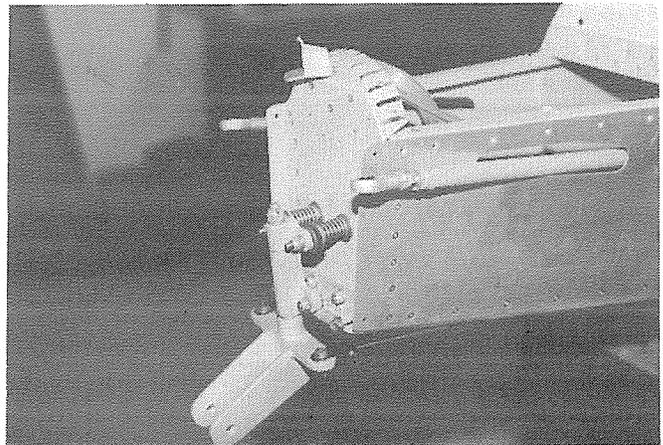
## moni



Moni plans, and text sheets, flight manuals, template sheets, decals, and back ordered items are sitting out back in heaps as I type this. Alas, all of you should be

receiving your new set of plans and goodies very soon!! Only one error that you will see right off the bat. Yes, we know that on the first page of the flight manual, the third view is upside down!! Just trying to see if you are on the ball before you fly guys!

News about a new Shock Absorbing Tailwheel. Randy came up with a simple shock mounted tailwheel design which uses all of our standard tailwheel components. You simply add a small hinge section, compression springs, and a few bolts. The tailwheel assembly is now allowed to pivot and sharp blows are not transferred directly to the tail surface bulkhead. The tail wheelpan is also modified slightly to allow for it's trailing edge to move up when the wheel hits a bump. As soon as is practical we will be publishing drawings and have an inexpensive retrofit kit available. This modification really takes the wear and tear off the tail on rough or bumpy surfaces and is well worth the extra effort to install it.



Alas, the floats we ordered last September have finally arrived!! (We are not the only ones with back orders!) John is proceeding with ideas on modifying and fitting the floats. We'll try to have something to show you at the big fly-in. Moni has the potential of becoming a very interesting airplane with this addition!

We are getting very close to test flying our Tri-Gear Moni Prototype! The nosewheel assembly is very similar to the Sonerai unit. Providing flight tests prove satisfactory, the gear mount points and assemblies will be finalized for production and made available as a kit option. John expects some reduction in cruise performance and an obvious reduction in glide performance but we believe the effort will be satisfactory as a good all around Sport Plane for low time, tri-cycle gear only pilots. However there is no question in John's mind that the single wheel will prevail for those of you who want maximum performance!

Myron Marsh #112  
3525 Kendale Drive  
Ft. Wayne, IN 46815

Shipped October 1982. First flight May 1983. (The one built in his living room!)

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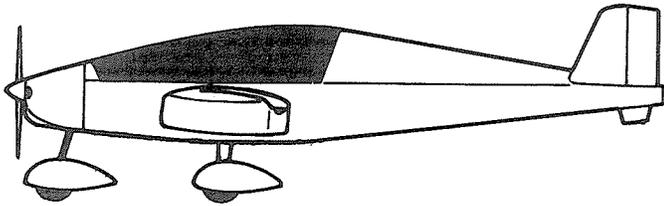
### News From Builders

Roy Schmidt #61  
Box 2617  
Stuart, FL 33495



This is a future Moni pilot getting checked out on a wind surfer - practicing his bail out routine.

No he did not send us this photo! We were guests of Roy's at his resort in the Bahamas for three days and this is rather a dirty trick to pull on him! Roy is having his Moni built on Harbor Island at his resort called the Romora Bay Club. It is a marvelous, wonderful get-away and I could go on for pages about our stay and the island and all the wonderful people that work there. Just want to say thank you to all of you! Especially Roy for his hospitality. I still can't believe that we actually took a vacation that had nothing to do with airplanes....well, at least it wasn't an air show or a convention anyway! I wanted to show you the beauty of the resort but of course it can't be captured in



### First Flights

Get a load of these Monis hatching all over this spring!!  
Congratulations all of you!

Bill Crone and Bob Cash #115  
10335 Dolphin S.W.  
Rt. 1 Box 119  
Beach City, OH 44608

Shipped October 1982. First flight May 1983. Photo last month.

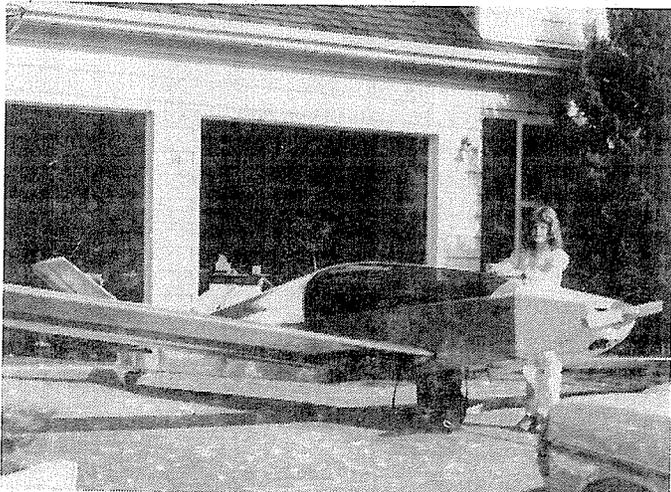
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Bill Gush #117  
3631 W. Comm. Blvd.  
Ft. Lauderdale, FL 33309

Shipped September 1982. First flight May 2, 1983.

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Jerry Larsen #83  
1044 29th Ave. S.W.  
Albany, OR 97321



Shipped August 30, 1982. First flight May 15, 1983  
Sent this photo early last month. (Good helper I see!)

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photos. Let it suffice to say that Romora Bay has it all - deep sea diving, fishing, beaches, wonderful food, boating, snorkeling, romantic atmosphere, ...and no TV's, clocks, or phones in your room!!



This is Anthony Collins working on the Moni. Anthony lives on his sailboat by night, is building the Moni by day, and in between times gives wind surfing lessons. Tough life for a young Englishman!

For more information about Romora Bay Club contact Roy at his office address: Box 2617, Stuart, FL 33495 or phone 305/287-8293.

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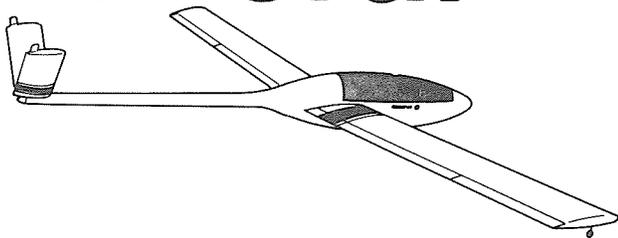
### For Sale

George Conn, Jr. #34  
 Star Route 3, Box 353  
 Eustis, FL 32726  
 904/357-9243

Complete Moni kit - untouched. \$5,500 Firm.

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# monerai

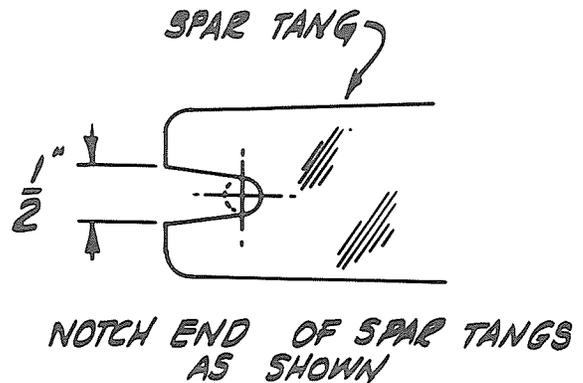


We are aware that the Spar Modification Plates for the Monerai made field rigging the wing a bit more difficult for you builders! So this very simple solution was developed by John to remedy this problem.

#### Monerai Spar Mod Modification:

A simple notch can be cut in the end of the Monerai Spar Mod Plates after all the holes are drilled to make rig-

ging the wings easier. This has very little real effect on the strength of the spar plates and greatly reduces the difficulty of assembling the wings and using the assembly fuselage dolly. As you see from the sketch here, the spar plate now has a fork end on it which engages the opposite side of the fuselage attach pins. Everything on the plate remains the same except for the wedge removed from between the 5/16" hole and the end of the plate. This arrangement actually enhances the wing assembly and you can cut the notch in the assembly after all the holes are drilled. Be sure to file and radius the edges of the cut out and maintain the 5/16" diameter of the half hole left.



Some nice comments and flight reports from our Monerai Builders this time!! Keep sending those tips and photos and flight reports....thank you!

### First Flights

Hugh Gardner #332  
 Rt. 10, Box 300  
 Tallahassee, FL 32304

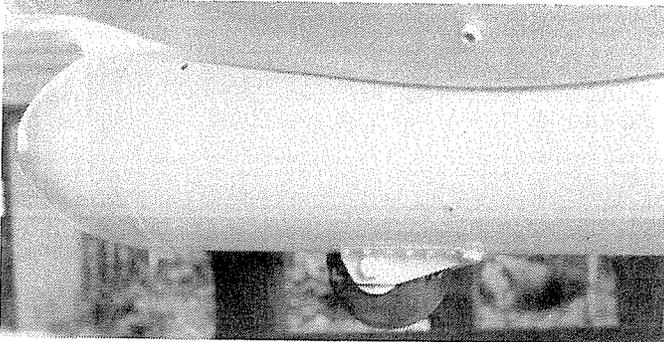


Hugh writes: I am proud to say after many hours of enjoyable work, Monerai #332, power pod and I made a perfect first flight on April 3, 1983 in Brewton, Alabama. With experience only in 2-33 and 1-26 I find the Monerai an incredible flying machine. Thank you for designing an affordable, self launching, good looking sailplane kit. I am looking forward to many hours of low cost soaring. (if the

wind will quit blowing).

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H. Portmann #364  
1926 Meredith Road  
Campbell River, B.C.  
Canada V9W 4R7



Mr. Portmann writes, "Enclosed a picture of C-G TMY (Tickle My Yahoo) on test flight day. Everything went perfect, no adjustments needed, and easy to fly, a real enjoyment. Total building time 385 hrs. (June 25, 1982 to Sept. 7, 1982) Your tailskid is too noisy so I installed a wheel. Ruddervators utilize taper pins for attachment (no play). Thanks for the good plans. P.S. Your spar mod is installed and flying. No pop rivets on the whole aircraft.

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## News From Builders

Loudon Blair #312  
39 Ballycraig Rd. Larne  
Co. Antrim BT40 2LE  
Northern Ireland



The only two seater Monerai around!  
Progress to date as of May 1983: Fuselage and boom complete and ready to make wings. Tailplanes ready to balance. Wings being covered. All control runs complete.

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Sean Sweeney and Dan Drugar #111  
655 Juniper Hill Rd.  
Reno, NV 89509

Sean and Dan recently purchased Monerai #111. Sean writes: "We have been looking for a partially completed Monerai for two years and found this one completed with parachute and instruments. Both Dan and I are 18 (does that makes us the youngest Monerai owners?) We plan on many enjoyable hours in our Monerai!

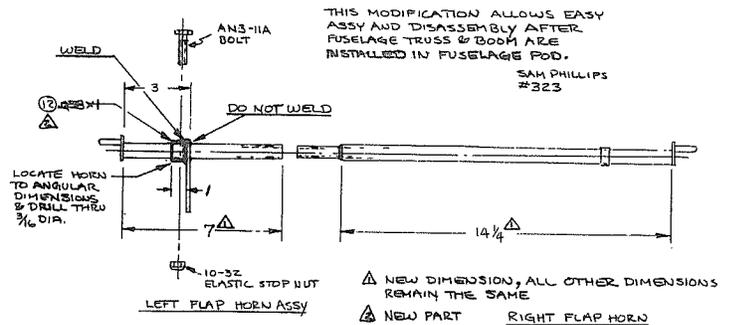
*Editors note:* As far as we know, you are indeed the youngest Monerai owners! Congratulations on your purchase.

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## Builders Tips

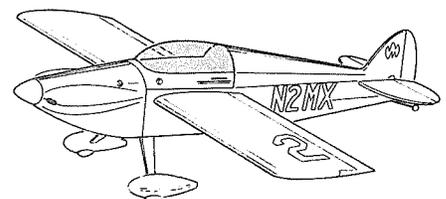
Sam Phillips #323  
8537 Lubago Avenue  
Canoga Park, CA 91306

Sam says "Here's a change I forgot to send in about a year ago."



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# sonerai

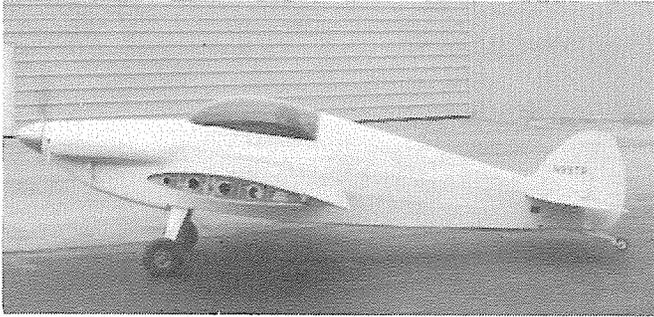


Good news!! The Tri-Gear Sonerai drawings are almost finished and the kits about ready for distribution. Sorry for the delay!

A Sonerai has been selected for the Wright Brothers Invitational 1983, at Dayton Ohio. Watch for who is selected to represent Sonerai.

### First Flights

Tom Ryan II #206  
2068 Big Oak Lane  
Northbrook, IL 60062



"Miss O" 1700 SV Hegy 52 x 44

Have this interesting letter from Tom to share with you - "After what seems like an eternity, my Sonerai II made its first flight on May 9, 1983. Would you believe that when I purchased my plans, that John was working out of your basement and garage on Adams in your Elgin home! John was finishing up your remodeling, to make room for the twins! Oh, how time flies. At the time of writing this letter, my feet have not touched the ground. My Sonerai II is based at "The Landings", in Huntley, IL. At last count we have "Ten" Sonerai's on the field, with more on the way by the end of the summer. We could have our own M.E.A. Fly-In, and we would not have to leave the airport. My first flight was, fantastic or is that "FANTASTIC". My trim is perfect, it flies hands-off, and I do not think I will have to re rig anything. Hope to see you in June. This time I think I will, FLY TO OSHKOSH. That felt so good to say!"

*Editors note:* That was a long time ago. Jason and Jeremy will be 9 on June 12!

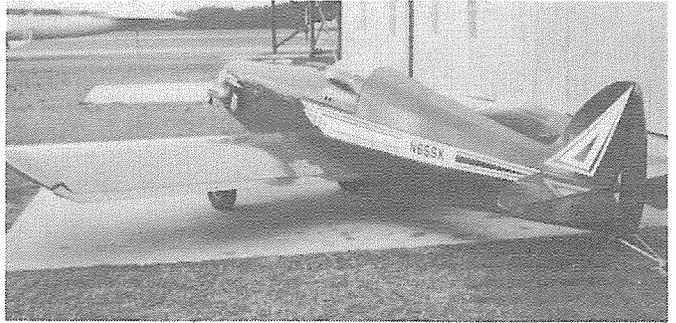
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Ron Shewan II #619  
Kororoit Creek Rd.  
Williamstown 3016  
Melbourne Victoria  
Australia



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Don Johnson I #259 L  
1211 Highland Dr.  
Washington, NC



Don has 12 hours on his Sonerai I Low-wing. First one flying we believe.

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Jim Wendel and David Schatz II #768  
1295 West Stevebridge  
Hoffman Estates, IL 60195

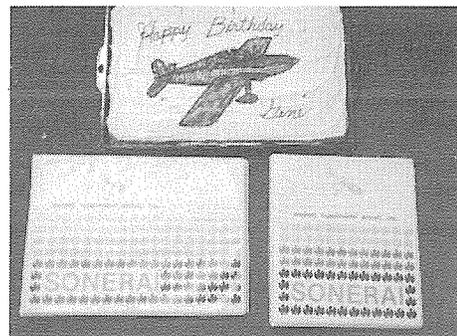


First Flight was April 17, 1983. 20 hours to date. 2180cc Monnett Conv.

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### News From Builders

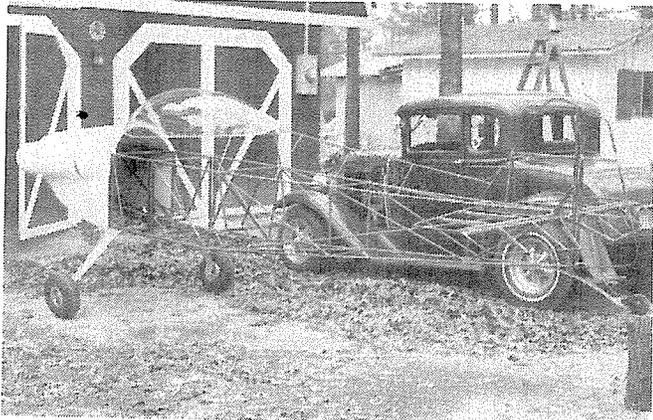
Ernest Worsham II #1475  
1234 Chipeta  
Grand Junction, CO 81501



John Linke of Grand Junction recently purchased Sonerai II Plans #1475 as a birthday present for his friend Ernest Worsham and threw a surprise party besides - complete with a Sonerai Birthday Cake. (Wouldn't we all like to have a friend like that!)

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Neil Sidders II #1326 L  
Rt 5, Box 357-A  
Monroe, LA 71203



It's a Ford and it's my everyday car.  
Neil sends us this nice letter -

"This is my first home-built aircraft project and it seems it won't be my last. I really enjoy building. In the beginning I was going to build from scratch but the Sonerai fit so close to my own ideas it just didn't make sense not to build a Sonerai. As you have no doubt noticed I didn't exactly stick to the plans. I hope you don't mind but after 10 years of building Dragsters, Custom Cars, and Street Rods, I just had to throw in some changes....I realize the 360° canopy may cost me a couple m.p.h. but I kinda like it and if the nose wheel didn't hurt your speed this may not either. Structurally the airplane is the same. All I did was take about 3 or 4 inches out of the rear deck and bent the tubing for the vertical and horizontal tail surfaces a little different. The tail ribs are to the print. A rollover bar will be located between the seats providing more passenger protection.....

As a kid growing up in the late 50's early 60's I was fortunate in that my dad ran a hobby shop. My brother and I were into flying control line models then, as you were too. We even graduated to R/C and flew lots of rudder only. (ever forget to wind your escapement) Just to let you know we kind of come from the same old school."

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George McClintock II #504  
107 Vansickle Ct.  
Point Pleasant, WV 25550

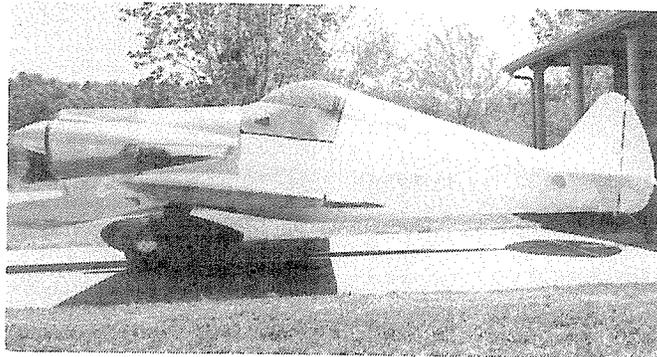


Bootleg Spitfire  
We have seen George's modified Sonerai I before in

Monink but here are some of the latest changes - it has a two place Sonerai canopy. The closeup photos he sent us show some interesting "graffiti". One is an interesting twist on an old quote "If God wanted men to fly, He'd give him more MONEY!" How true, we wives would say!!

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Wallace McDaniel I #27  
6629 Bellfort  
Houston, TX 77087



Another Low Wing Sonerai I

Dr. McDaniel writes...."It might well be said, due to construction time, to be the newest antique project in the works. Due to the great number of modifications and with respect to your design and engineering, I have named it "Scrounger #1". Modifications include: Continental 75 hp crossover turned exhaust, Low wing with dihedral in carry-thru spar, controlled cowl flap, all metal cowling, slanted back of canopy for better seal, raised turtle back 4 inches, place aileron control tork tube below fuselage and faired in, reshaped vertical fin and offset to left, lowered bottom of firewall by 4 inches faired in, full length piano hinge ailerons...."

*Editors note:* Dr. McDaniel is indeed an "old" customer as Sonerai I #27. Our son John just turned 12 in April and he was a year old when we started selling plans. Now that's a dedicated builder to spend that kind of time on his homebuilt project!! Good Luck with Scrounger #1!!

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## RANDY RAPS

### GENERAL

**Homebuilt Aircraft Certification** - Everyone probably knows by now about the change in regulations that cover homebuilt aircraft in the United States. The F.A.A. has published an Advisory Circular on the subject and it explains the new regulations, the purpose and limitations of the F.A.A. inspection, and step by step instructions describing how to get your airplane certified. The title of the pamphlet is "Certification and Operation of Amateur-built Aircraft", AC#20-27C and is available at no charge from:

U.S. Department of Transportation  
Publication Section M-443.1  
Washington, D.C. 20590

(Check your local F.A.A. office to see if they have copies available) The AC also has a list of other AC's that may be beneficial to you and your airplane.

**Reference Book** - There is a publication available that may be of interest to you since you are now involved in aircraft construction and maybe some repairs (lets hope not). It's called Advisory Circular 43.13-1A and 43.13-2A. These books are the Aircraft Maintenance "bible" and are required reading and reference material for A & P mechanics. These volumes replace the old CAM 18 that was used for years by many homebuilders but is now out of print. The advisory circulars are available from the U.S. Government. To get a listing and current prices of all A.C.'s, write to the Department of Transportation, Publication Section M-433.1, Washington D.C. 20590 and request a copy of AC-00-2. There is no charge.

The "Aviation Mechanic's Maintenance Publishers" also sells reprints of these and many other helpful books. The price for AC43.13-1A & 2A is \$11.50. Their address is Box 890, Basin, WY 82410.

**Moni & Monerai Spar Fittings** - Installation or re-installation of the main spar fittings should be made with the high strength/close tolerance NAS bolts that are furnished with the fittings. The NAS bolts can be identified by the concave center on the top of the bolt head. The letters NAS and other identification numbers can usually be seen around the perimeter of the concave center. The NAS bolts are of a slightly larger diameter than the standard AN-3 type bolt and do not fit into a normal 3/16" hole so an over sized hole must be drilled. A number 12 drill bit is the proper size to use and it will furnish you with the light drive fit (shouldn't need more than a 12 or 14 oz. hammer) that you need. A light coating of general purpose grease on the bolt shank will help ease installation.

As shown on the drawings, one washer is used under the head of each bolt. In many cases, the two long NAS bolts in the thickest part of the wing fitting (last two at the spar end) may not require more than one washer. If so, delete the washer under the bolt head and use only one washer underneath the nut. This also provides more spar/box clearance during assembly.

## MONI

**Tools** - In the last issue of Monink, a few sentences were inadvertently left out during printing. When describing some of the tools I made reference to ATS which stands for Aircraft Tool Supply. Their toll free phone number is 1-800-248-0638 or you can write to P.O. Box 475, Oscoda, MI 48750.

**Moni Sta. 2** - The inverted "V" bracing that has the shoulder harness attach fitting bolted into the middle of it, is at this station. The fitting is bolted on the rear side with the strap/slot pointing down. The straps pass underneath bracket #11 and out through the slot in the seat. The earlier template sheet showed these brackets with a flange - less edge, that could eventually wear through and weaken the straps. To prevent this, a simple channel of

.020 aluminum (see Figure 1) should be bent up and riveted over the brackets bottom edges.

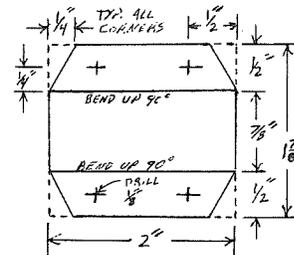
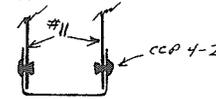


FIG. 1



**Moni Tools** - To manufacturer your short aileron push pull rods you will need the use of a 1/4" - 28 threading die and handle, which if you don't already have or can't borrow, you'll have to buy but just about any hardware store will sell them. If you've never used a threading die before you'll find that these tips might help.

Clamp the rod stock in padded vise and start cutting the threads, occasionally applying liberal amounts of oil (motor oil is fine) to wash out the chips and lubricate the cutting edges. Take your time, checking continuously to make sure that the cutting die is perpendicular to the rod stock and not cutting crooked or into the side of the rod. For every 1/2 turn of new thread cut, you should then back up about a full turn. Keep repeating this process. It helps to break off and clear away the steel chips. Don't try to cut the 4130 steel rod with an old, dull cutting die. You'll just make extra work for yourself and end up with broken or chipped threads.

## SONERAI

**Sonerai Fuel Tanks** - We have had reports of the fuel tanks sliding back into the instrument panel allowing the instrument cases to rub against the fuel tank. Sonerai pilots should check the fuel tank installation for adequate clearance, and if necessary, correct the problem. Fuel tank stops could be made many ways and should be attached to the 1/2" diagonal tubes beneath the tank. A length of padded 1" x 1" aluminum angle held to the tubes with adel clamps would provide good support for a rear stop. Two pieces of heavy walled rubber hose clamped to the tubes with worm/screw clamps would suffice.

**Sonerai Horizontal Stabilizer** - Throughout the construction of your plane you will often find it necessary to build and fit parts upon assembly. Keeping this "custom made" philosophy in mind may result in a better looking or smoother operating component, versus trying to pre-manufacture everything with high hopes of all of the parts magically falling into place. (You dreamer!) Anyway, the subject of this is supposed to be the inboard ribs on each horizontal stabilizer. It would be better to only tack weld this rib in place until you can fit it to the fuselage and see how the rib matches with the top longeron. If needed, break the tacks and reposition the rib so everything is parallel which will give you a better looking fit.

**Engine Bottom Pan Baffle** - In order to provide adequate oil cooling, usually a baffle pan must be fitted to the bottom of the crankcase. Its purpose is to control the airflow from the cowling opening to the under side of the oil pan/crankcase, holding the air up against the engine rather than allowing it to spill directly into the cowl cavity. It attaches to the four drilled and taped metric #6 holes around the bottom flange. The pan can be made of .020 aluminum or heavier. It should fit within 1 or 1-1/2" of the crankcase bottom fins and extend forward to the cowl inlet. (See Figure 2)

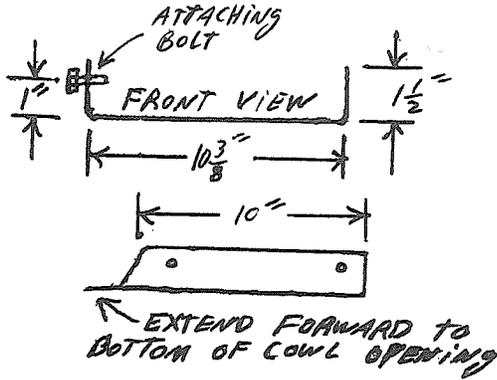
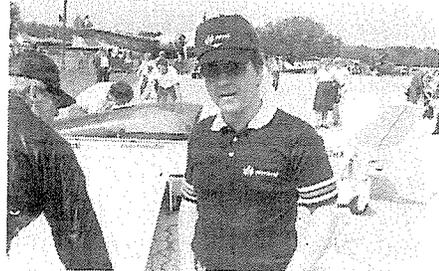


FIG. 2

*Randy Novak*

As I type this newsletter John is on his way via airline to California. Rob Maddox left several days ago to drive the Moni in trailer out there. (Lucky, Rob!) If they manage to meet up, John, Rob, and the Moni will see some of you at either Watsonville, Merced, or Burbank!!

Were you surprised to receive this issue so soon? Betty's really on the ball you said! Well, remember we are switching the press schedule around so you'll receive three issues three months in a row. July, August is next. Special Oshkosh details. Mailed out first part of July.



Lastly, who is this fellow dressed in black?...not green! (Sorry this is not in full color so you can see that for yourself.) Paul Poberezny sent us this photo of John and the crew - Don, Randy, Rob in the background - taken at Sun N Fun 1983. Thanks Paul for sending it. I had the biggest urge to put a caption something like "Would you buy an airplane from this man?" But then I would have two people upset with me this issue, Roy Schmidt and John.

*Betty Monnett*

Frederick Keip SII#356L  
 11428 Six Mile Rd.  
 Franksville, WI 53126  
 9/83

