

INAV LT. INK

MARCH/APRIL 1986

Dear Friends,

I must begin this issue with two apologies. First, I am sorry for the poor quality printing of the Jan.-Feb. issue. It was very difficult to read! We are again trying our hand at the MacIntosh for typesetting but also plan to enlarge the type and use a higher quality printing with clearer photos. Hope this issue is better! Second, I am sorry for getting this issue out late - end of May. I would not be a very good editor of a monthly publication. I can't even manage my deadlines for every two months! Ideally, I try to get the newsletter out at the end of the first month listed. But never fear! We will always publish six issues a year no matter what time element is involved.

Oshkosh '86

Could that possibly be correct? We are talking about the EAA OSHKOSH FLY-IN already? Dates for this year are August 1st - 8th. Two months away!!!

A few plans are underway at INAV already. I know you are all interested in the Builder's Party! This year it will be Saturday Night, August 2nd. The first Saturday seems to work out the best for everybody with the most people being able to attend. I know some of you must remember those first parties in the basement of Butch's - it's been twelve years now since that first party. Thought you might be interested to know that Butch has opened his third restaurant in Oshkosh called Trio's specializing in ribs & sandwiches located in the old Nino's on frontage road. More news: the new Radisson Hotel & Convention center is open downtown on the river, a new Peking Chinese Restaurant just opened on Main street, the new Holidome with Sammuels restaurant and bar is completed too. Oshkosh is ready for you!!!

In addition to planning the party, another job I have is choosing the paraphernalia we sell. I need your help! What would you like? What would you buy?

We now offer the black hats with Monerai, Moni, Sonerai patches on them. Would you like an INAV hat like ours available also? We now have the T-shirts but would like to switch to polo shirts.

Shall we offer both? Would you like an INAV shirt like ours or just the Monerai, Moni, and Sonerai designation? If you have any thoughts or opinions in this direction, drop me a line. I want to offer you what you want to wear as a proud homebuilder of an INAV design!

INAV Gift Certificates

One thing we have always intended to do was offer a Gift Certificate redeemable for plans or airplane parts of course! If you need a Father's Day gift, Birthday Gift, or just want to support your homebuilder member of the family, call Carol or Livia with your needs and they will be happy to help you with a gift certificate.

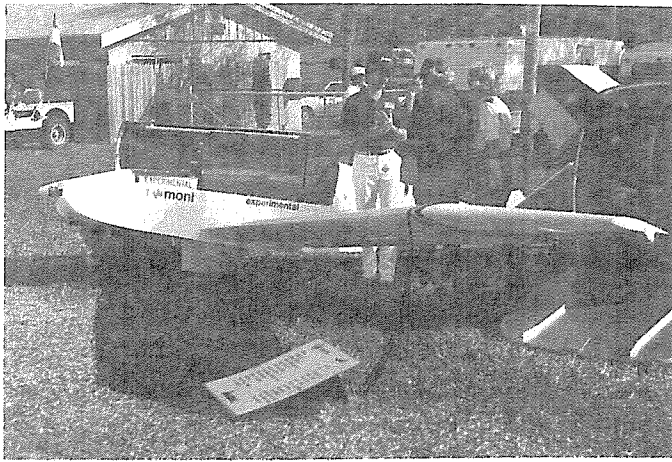
Traveling

SSA Convention

As planned, John and Brian Bristol attended the Soaring Society Convention in Valley Forge, PA the end of February. It was a pleasant surprise when some of our business associates and friends from across the sea joined them! Malcolm Lawrence was in the states at that time and his special guests were Sandy Gilmour, Sam Bendahan, and Irene Mitchell. We had no booth this year but everyone kept busy - talking to other delegates and attending sessions. A lot of time was spent discussing and reseaching ideas for an exciting future INAV project!!

Sun N Fun

The trek to Florida this year was made by Brian and John LaBouton, our draftsman. John M and Malcolm joined them for the week to help out in the booth and at the flight line. There were several builders attending and several INAV designs there. Ed Sterba made his annual flight from IL with his Sonerai!! Hurrah for Ed! Wonder how many hours he has logged in his Sonerai? On the whole there were not as many homebuilts as in the past but some bad weather early in the week kept many from flying in.

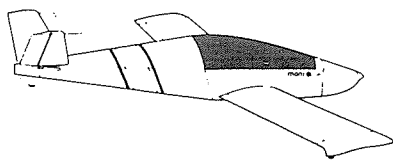


The photo shows John L. hard at work talking to an interested customer about a Moni.

Aviation Composites

Brian and John have also been to England this month to confer with the Aviation Composites staff. John made another short four day trip, but Brian has just returned after two weeks of working hard on the Mercury Project. This canard design has gone thru a metamorphosis of design refinement and promises to be a fine two place performer as a production aircraft. We have a tremendous amount of work ahead at both Aviation Composites and INAV to achieve the goal of getting the Mercury into production.

moni



Moni Fuel Line

The Moni fuel line presently being used is clear polyurethane line from tank to carb. This is gasoline compatible fuel line. Some builders may elect to install metal braided fuel line for an additional safety margin. This is approved by INAV. A braided fuel line is available thru many automotive or aircraft supply houses. We expect to carry this type of fuel line in the near future.

Installation notes:

For those wishing to use it on the Moni, the KFM Maxi Engine requires 3/16" ID fuel line at the fuel pump. On the Sonerai, the Posa carb requires 1/4" ID fuel line. Small stainless steel worm drive clamps are acceptable for attaching braided hose to the carb and tank fittings.

Service Bulletin #4 & #5

Monnett Experimental Aircraft issued two service bulletins on April 30, 1986 for the Moni. If you did not receive them please let us know!

#4 - Mandatory Compliance. Moni Wing Root Rib Modification. On all models of Moni aircraft the rear root rib of each wing panel must be removed and replaced with components described on drawing B-0179 (supplied). This modification is necessary to provide additional margin to prevent potential wing root rivet failure due to wing torsion loads. Materials kits are available from INAV. \$33.00

#5 - Not mandatory. Moni Turn-over Structure. Installation of a compression tube on the headrest bulkhead to mixer mount will significantly improve the structures ability to withstand an accidental impact load to the turtle deck therefore offering added pilot protection. The modification is detailed in drawing SH 31A (supplied). Prewelded materials kits are available from INAV. \$18.75

Both these modifications and materials are now included in any INAV kit currently being delivered. Ed note: If anyone knows the whereabouts of Lincoln Roe -kit #121 previously in Manhattan, KS contact Carol. Please be sure to notify us of any change in your address.

FIRST FLIGHTS

Frank E Millis, Sr. #141
4460 Balsam Street
Wheatridge, CO 80033

First flight was March 24, 1986

Frank writes:

"Dear Sirs - HOT BULLETIN!

Moni # 11411, N-2330H flew today at the Tri-County Airport at Erie, Colorado witnessed by Dr. John Gill (Tri-gear Moni almost ready) and by Lowell Robbins (Stevens Akro) and Bill Brandt (Boredom Fighter)..."

Bill Davison #16
646 Margo Drive
Vineland, N.J. 083360

Bill flew for half an hour on his First flight
March 18, 1986

F.P. Raaf
P.T. Humpuss #320T
Hanurata Graha Bldg.
Jl Kebon Sirih 67-69
Jakarta 10340
INDONESIA



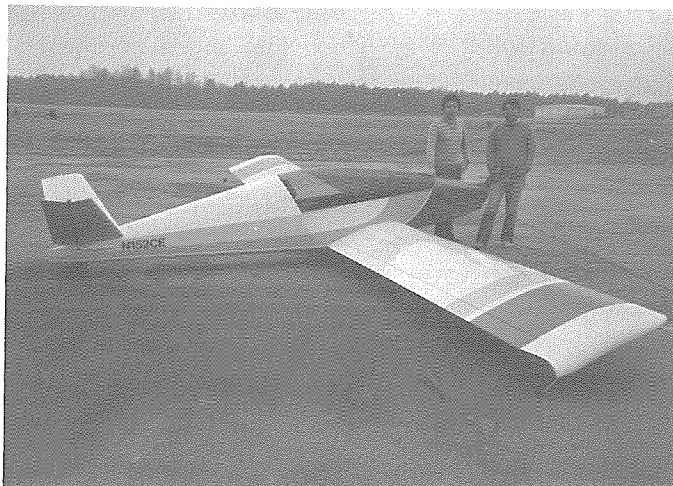
In 1985, five Monis were sold to Indonesia. Here is a report from Philip Soelistio about the first one to fly on December 25, 1986.

"Finally after working day and night for 5 months (August 4, 1985 - December 25, 1986) Moni trigear kit #340T made it's first maiden flight at Pondok Cabe Airfield, Jakarta on Christmas day 1985. The test pilot is Mr. Muso from the air transport department. The Moni flew beautifully but it showed a tendency to bank to the right. Adjustment was made and the second flight was made on New Year's day by the owner Mr. Raaf Firman Putera.

It flew without any complaint. So far only three people have flown this Moni, myself, Mr. Muso, and Mr. Raaf. Interesting to note, myself and Mr. Raaf flew this Moni straight from Ultralight without any flight hour in high performance gliders at all. In fact, Moni will be shown in the coming Indonesian airshow June 1986 to promote the interest for homebuilt aircraft in Indonesia. We are also preparing to apply for Indonesia Chapter of EAA.

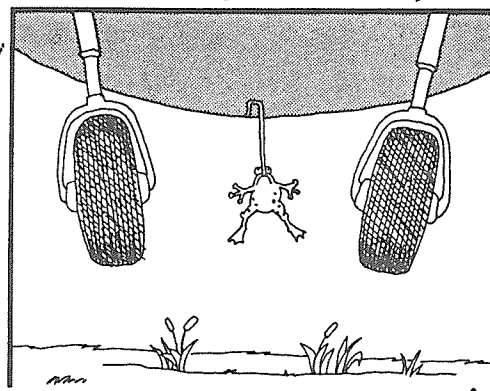
We are presently building all 4 Monis at the same time: 3 in Jakarta and 1 (Air first Marshal Pribadi's) in Bandung (West Java). They are expected to be completed within the next 3 months. In addition, for your information I would like to express our thank to Mr. David C. Green who has been very cooperative in giving us advise and pictures....."

Carlos Emmons #152
2113 Arlington Ave.
Atlanta, GA 30324



First flight was Feb. 23, 1986

Carlos recently
sent us this
post card:



"The 23rd of February was the day that 152CE first took to the sky. The flight was great and the plane behaves well. I logged 1.2 on the first flight. I did not find any frogs on my post flight inspection however. Thanks for all your help."

Gerry White #155
2902 N. Cleveland St.
Enid, OK 73703



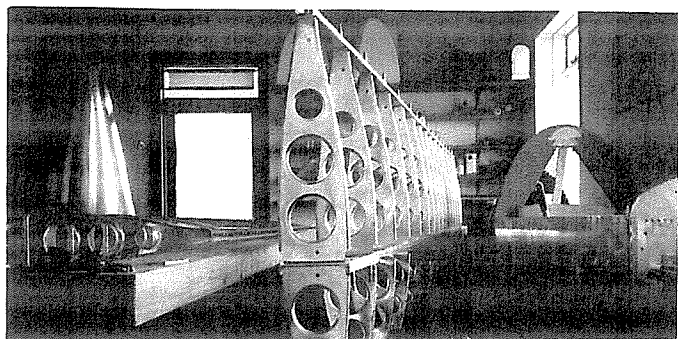
The thrill of victory after his first flight on March 27, 1986.

Gerry sent us the following:

"I thought I'd write and send some pictures to show that I finally made the 1st flight in my Moni, N83GW. Flew great except for a problem with the engine not developing full power which I've since corrected. Just once around the pattern at Enid's Woodring Airport so far. Am looking forward to getting the restrictions flown off and starting to attend some of the nearby fly-ins. Started construction in January 1983 and thought I could finish it that year. (hence N83GW) Now I just tell people the '83 is when it was started. First flight on March 27th. Superb paint job credit goes to Gary Nuefeld of Southern Gulf Maintenance in Friendswood, TX. Much thanks also to Dave Surbrook for all the help and moral support. Am looking forward to Kevin Ross completing his so we'll have two flying in the area. Thanks for your support during the construction phase. Looking forward to seeing you at Oshkosh."

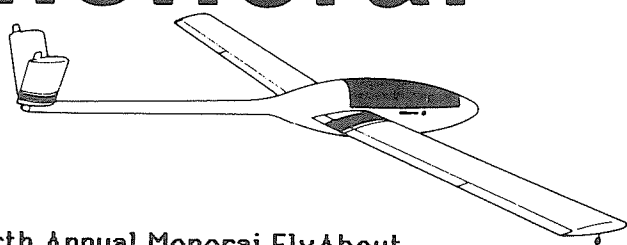
NEWS FROM BUILDERS

Hurdur Hjalmarsson #10
Lynghaga 17
107 Reykjavik
ICELAND



From Iceland comes a photo of Hurdur's progress.

monerai



Fourth Annual Monerai FlyAbout
Ceasar Creek, Waynesville, Ohio May 24 - June 1

As you read this the Monerai guys are gathering for their annual fly-in. Jim McCulloch, who organized the week, says Ceasar Creek is one of the finest glider ports in the country. This year they will be having a Cross Country Clinic, sports contest, trophies, fun flying, and end with an Ox Roast. Sound like Fun?? Come join them! Jim said to mention that any Moni builder is also welcome! You don't even have to have an airplane. You can drive in just for the camaraderie and talk flying for a few days. Hope somebody takes some pictures! Last year Jim had some video footage available too.

First Annual Ontario FlyAbout

York Soaring Association

July 19-21

York Soaring is about one hour NW of Toronto, Canada. Contact Jim McCulloch if you would like further information about this fly-in.

Jim McCulloch, 121 Madeline Rd., Manchester, N H 03104 Phone: 603-669-3324 days -8341 nights

Self-Launching Sailplanes

The purest vs. power pod discussions rage on. We in the homebuilt sailplane and motorglider marketplace have our opinions! I enjoyed the following view expressed in an article in Soaring by Harry Miltner called Motorizing a Pure Sailplane "Webster defines purist as: unmixed, free from what weakens, free from taint. From my translation..... self-launching sailplane owners are the purists! Finally emancipation from the tug, wing runners, towpilots and tow ropes. We can look forward to a lifetime of soaring when and where we choose."

Monerai Construction Tips and Hints

Often we get calls from someone who has purchased a Monerai Kit "second hand", or we find someone who has decided to start building and working on his kit after several years of letting it sit idle. They call to inquire about changes to the plans, changes in the kit, etc. It is hard for us to relate all the dates and changes in a phone call. We usually suggest getting the back issues of the newsletter for \$6 per year. But Carol has compiled all Monerai changes since the beginning into one 13 page booklet. There are basically 3 sections to it: Changes and Clarifications to the plans, General Builders tips/drawings, Construction Tips sent in by fellow builders. We'll be charging only \$5 for the printing, postage, and handling. Ed note: If you have kept current with the newsletter and kept in touch with us, you will probably not be needing this. It is mainly for those with used Monerai's, or idle kits.

Empty Mail Bag

Recently I received a letter from Monerai builder Russ Cedarholm which I wanted to share with you:

" I will not be renewing my subscription to the newsletter and I thought just maybe you would be interested why. I, like others have in the past, had many fine moments reading how our fellow builders were doing etc. What was new in the way of mods, who was ready to fly or who had flown. I spent the good part of one day reading through back issues and they were great, my hat is off to you, you did a wonderful job. I know in talking to others that have built or who are building Monerai all feel the same.

The problem is now, if there is any mention of Monerai it is very little and this does not set well with us. I say us because we all feel this way. There is no more of who is doing what or what we will call the meat of what once was a super paper. The last issue read as a commercial for engines and the factory etc. Oh yes, I like that to, but I still feel very strongly that more should be done to bring back the so called early days when it as more tech.

Let me say that most of us that build are very special people. We like or love the projects we create, they are an extension of our inner self and mean a great deal. I believe your paper helped all of us do a better job through the ideas of others and I for one would like to see this come back in some way. Perhaps if you would ask other readers how they felt you may have a better understanding of what I am trying to point out. I hope more can be done for the Monerai people in the future as to what we would like to see. I know it is very hard to please all. You have always done your best and we appreciate it believe me."

Since others of you may feel this way, I share my response:

" Thank you for your recent letter and your concerns about the newsletter. I, too, have been very disappointed with the Monerai Section for some time now. There really is only one answer- no one is sending me anything!! I have never intentionally ignored or left out Monerai builders. I print every little thing that I get about Monerai. It would be impossible to fabricate builder's letters and photos so we put in other things to fill the space. I guess it is a catch 22. Monerai builders don't subscribe to the newsletter anymore because there is nothing for them and there is nothing for them because no builders send us any letters or photos!! I think

perhaps for a while there Jim McCulloch received most of their thoughts and ideas for his excellent newsletter but he is now experiencing the same problem.

Another reason is pretty obvious to us.... The kit sailplane market has been saturated (largely due to sales of 350 Monerai Kits)-but we have sold only 3 Monerais since 1984!!"

Excerpts from Russ's 2nd letter:

"Thanks for your response to my letter. As I said before, you have always been tops with all of us that are into the Monerai. I did not realize that sales were down that low and that no one was sending anything for the paper. I wish I could do something about that for you..... At any rate I want you to know that I thank you for your response and that I will try my best to help in anyway I can. I will even send some pictures of my ship soon. She will fly in late May or early June as I am just about done. I believe you will be interested in what I have done. It is so pretty I hate to get it dirty. It is to the point where I sit in it and make those funny noises pilots make when they can't get outside enough. You know....."

Jim McCulloch wrote in his last Monerai Newsletter:

"Since the last newsletter announcing your editors fervent wish and desire for someone to take over the chore (and fun) of publishing this memorable tome, the mails have been filled with the crushing sound of emptiness!! No volunteer editors, not much general correspondence, and yet we still have over 130 paid up (more or less) subscribers."

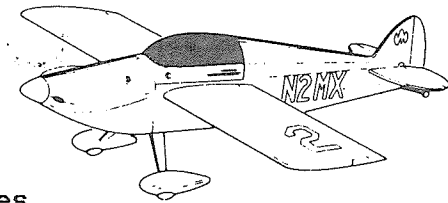
So come on guys get out your pens and your cameras!!! We'll be happy to provide the forum but we can't fabricate the experiences and stories!!!!

FIRST FLIGHTS

Gordon Coleman #120
20 Grove Hill Drive
Scarborough, Ontario
CANADA M1T 3C9

Gordon recently ordered a Konig Power Pod for his Monerai and mentioned he had first flown in June 1985!!

sonerai



Sonerai Canopies

Something new to look for - INAV is currently working on the tooling to produce larger canopies for Sonerai II models. The new canopies will provide for a shorter skirt and more glass area. They will have a somewhat different contour and a more European look. We are awaiting a shipment of plexiglass so we can begin working on them soon.

Updated Sonerai Flight Manual

In February of 1984 we updated the Sonerai Flight Manual and also changed the format making it smaller (8 1/2 x 7) to fit in the side pocket of your cockpit. We just updated it again to include all the models of the Sonerai - Tri-gear and Stretched specs were added. If you purchased your plans prior to 1984 and have the large flight manual in a binder, you may be interested in ordering one of these smaller ones.

New Sonerai Wing Pins

One of our traditions at INAV is to offer those who 1st fly their airplane a small gold pilot wing pin with either Sonerai, Monerai, or Moni on it. These are available for purchase for the rest of the family and friends! When we reordered Sonerai recently, we discovered that the push-pin back is a more popular style for men than the regular safety pin clasp. So now when you receive or purchase a Sonerai wing pin, you have a choice. Just let us know which you prefer. If you like this option, we'll order them for Moni and Monerai also.

NEWS FROM BUILDERS

Glenn Eisenbrandt #44511

711 East St.

Ft. Atkinson, WI 53538

Last year at Oshkosh, Glenn told me about how he keeps his Sonerai in his garage, regularly folds his wings, tows it back & forth to the airport every time he wants to fly, and can be ready to fly in 10-15 minutes! I knew this would be a great article for the newsletter and something you would be interested

in. One day in late April, Glenn flew over to INAV (to get some parts for his Moni he is currently building) and I had a chance to talk to him again about his "at home" Sonerai. He just hadn't had time to write anything so I interviewed him then & there.

Here's the scoop:

Before Glenn bought his Sonerai he sent out a questionnaire to many builders about folding, trailering, and keeping their Sonerai at home. He only found one builder who actually folded and trailered theirs regularly. Most thought it was too difficult, no one said they could do it alone, many never folded their wings at all. But Glenn felt it was designed to fold and it could be done. So 5 years ago he bought a ready made Sonerai from Kelly Dunn. Then he set about refining some things to make the folding process easy and fast.

Here are some of his refinements and tips;

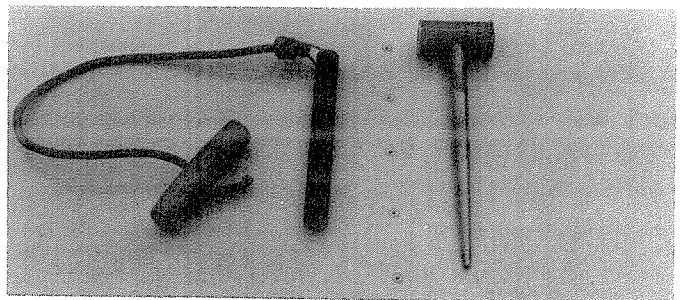
*Polished the spars to an exact perfect fit.

*Modified the wing fold. He extended the stationary part of the slide tube on the spar. Glenn adds you need a wife with small hands to put back on the bolts, nuts and washers inside!

*Put a spring load on the main spar taper pins.

*Put a floating captive nut on the trailing edge spar pins.

*In order to line up the spars for the pins, he developed a tool made of 1/2" aluminum rod about 8" long, machine tapered to 1/4" using the same taper as the pin. By sliding this into the hole you can line up the spar perfectly. Insert the pins and tap in place with this tool that has a hammerhead screwed on the 1/2" end made of 1" round aluminum which is soft and won't damage anything. (see photo)



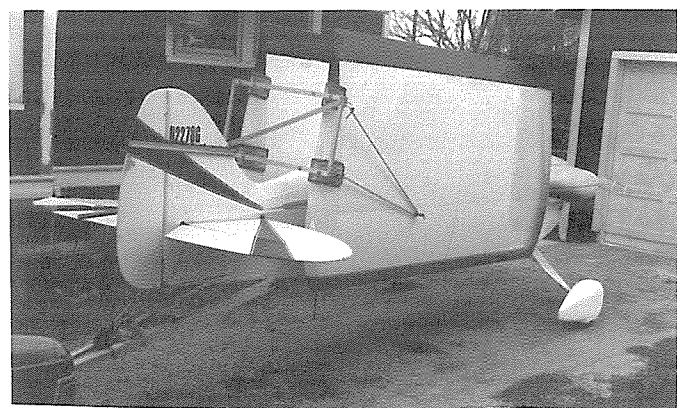
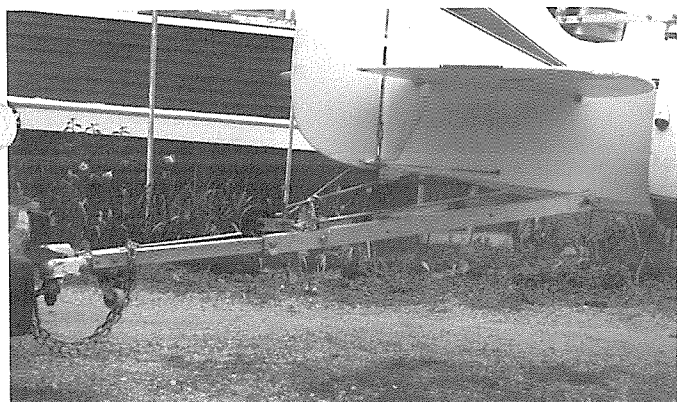
*To fold the wings - Remove rear spar pins with a small ratchet, 9/16" socket. He welded a 9/16" nut on the top end of the small pins. Remove main spar pins. He ground his so that a socket (any size) would fit on them. Remove them by rotating slightly. Push with finger and they will slide right out.

*Pulling the wing out was difficult as there was no place to grasp and pull so Glenn made another tool. (see photo) He took a piece of left over tubing and starter rope with a handle, cut a piece of tubing 6" long, drilled a hole in one end, made a loop with safety wire, joined with safety wire so it is inside the tube so it won't scratch the wing, tied rope on. To establish rope length which is convenient, stand at end of wing with arm outstretched and the tube in the wing-folding hole on the wing. Adjust rope length for you.

*To pull out the wing just put this handy tool in the wing folding hole (since this is attached to the spar it is a very solid safe place) Pull the spar out, rotate 90 degrees, and fold in the designated manner.

*Before he assembles each time he wipes the spar very clean so there is no grit to cause it to bind and sprays it with a greaseless lubricant.

*On the spar box Glenn used a dremel tool and ground the sharpness off the pinholes on the spar box to prevent shaving aluminum off the spar.



* On the spars themselves, he rounded the ends to make it easier to insert them in the box.

* Under the tow bar at the trailer hitch, he put a caster under the hitch so it can be rolled. (see photo) Glenn adds he never tries to back into the garage but always unhooks and pushes it in by hand!

So there you have it. With these refinements and tools, Glenn says he can take down or set up all by himself in 10 minutes, altho he usually allows 15. He claims it doesn't take him any longer to fold up his wings, hitch up, and head home than for most people to put their plane in a hanger. One advantage of having your plane at home is for maintenance. Glenn can work on it right there whenever he has time, get it done and not put it off.

Here are some interesting stats Glenn sent me:

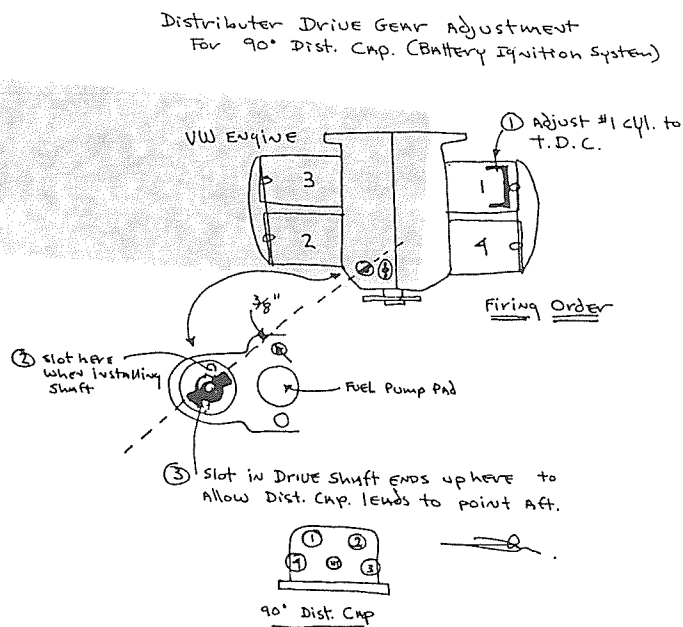
The plane has been towed to the airport and set up, flown, folded, and taken home **100 times** now! It has been towed to Oshkosh for 5 years from '81 to '85. It has almost 1500 miles of towing on it!!

If any of you have any questions, just send a SASE and Glenn would be happy to respond.

BUILDERS TIPS

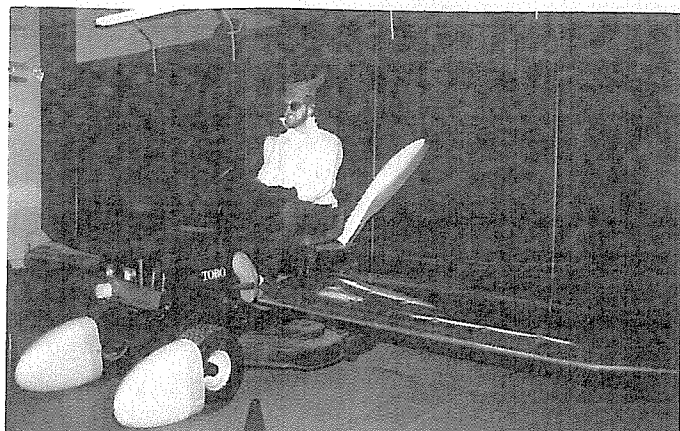
Distributor Drive Gear Adjustment

For those who want to install the distributor ignition in their Sonerai or any VW, we have changed the position of the distributor drive gear so the spark plug leads will face aft when leaving the 90 degree distributor cap. This helps make a smoother cowl and allows the distributor to fit under our fiberglass fairing (beauty bump). This drawing will show you what we have done.



This has been a full issue! But I have to add one last item I think you'll enjoy. This photo was taken while we were on vacation with the kids over Easter.

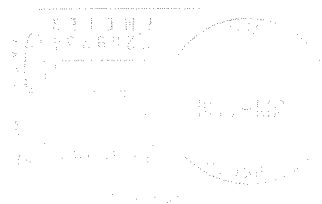
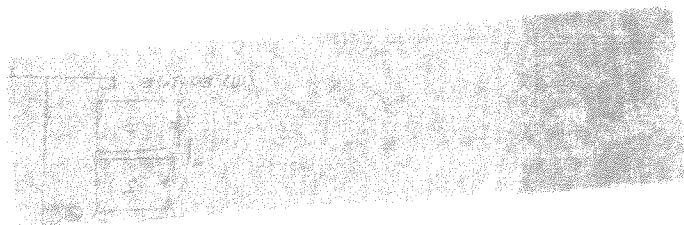
It shows the creativity of the guys in the shop on a new design they worked up themselves. Greg and John L. must have tired of John and Brian doing all the design work, either that or they had a bad attack of spring fever, anyway they came up with a Toro Lift-Off Machine of their very own. The questions still remain - Would it fly? Would this be a competent pilot? We will never know the answers folks as it was dismantled to mow the thick green grass and the sea of beautiful yellow dandelions instead.



Happy flying to all of you! (Especially those of you in the North where the winter doldrums have risen)

Here comes summer!

Betty Monnett



P.O. Box 2984
Oshkosh, WI 54903

