



# INAV LTD. INMK

MAY/JUNE 1986

Dear Friends,

The countdown has begun!! It is now July 7th (as of this writing) and in 3 weeks and 3 days it will be the eve of the 16th EAA Fly-In at Oshkosh! The excitement has already begun to build here - in town and at the fly-in site we see a flurry of activity. At INAV things are also all a flurry:

\* Our fiscal year now ends June 30th so we just finished inventory last week. Thank you for your patience in waiting for your orders placed during that time of shut down.

\* We have two projects everyone in the shop and R & D are working diligently on. Whether they will appear at the Fly-In is a ? and I can't say much yet. But they are occupying everyone's time for now.

\* Our booth is being redone and will look abit different this year. It will again be green and white like the old days - that Sassy Grass Green is hard to miss.

\* We in the office are busily planning all of the activities for the week and anxiously awaiting your arrival.

## Oshkosh Plans

Here are a few INAV particulars about this year's convention:

Builders Party- Saturday , August 2, 8:00 pm in our hanger/showroom. Anyone with a set of plans for Momi, Monerai, Sonerai is welcome to this Annual Open House. Come join in the comradery of meeting old friends and making new ones! This is our way of thanking you for your business! It's a Party!!

Booth - We will have two booths this year in the Central Exhibit Building. Look for us in J-13 & 14 (in the 1st aisle facing the flight line). This is my "spot" during the convention so come say hello and meet some of our British friends as well. Here you can pick up the latest info pack, price sheets, and

schedule of the activities for the week. In addition, all the latest in engine developments in VW, KFM, and KONIG will be on display!!

Shuttle- Our van will run the same as last year. Catch it at the North Forty Registration. It will leave from there on the hour from 9-4 daily, and return at quarter to the hour. The final shuttle of the day goes to the building at 4:00 and returns to the Fly-In site by 5 pm. The transient aircraft buses take the same route and may also be used to get to and from our building.

Business Hours- Once again we will be open everyday Aug. 1st -Aug. 8th from 8:30 am- 5 pm. If you plan to purchase some items while you are here, please call ahead and we will have the order ready for you. This will speed things up for you and help us too!

Forums- This year John's forums are in tent 5 on August 1 ; 1:15 -2:30 and August 3 ; 8:45 - 10:00 . (The morning after the party - oh dear!)

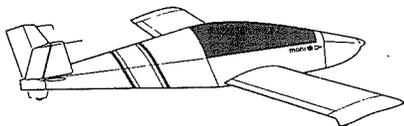
Flight Line- John will be trying something new this year. He is going to run short builders talks on the flight line everyday. A sign will be posted there as to details about flight line talks and flying schedules. We will again try to save spaces for our builders who bring their planes. We will be putting up our flags early in the week and hope we can save enough spaces for you who bring your Sonerai, Monerai, or Momi

Awards- If you do bring your INAV homebuilt, be sure to sign in with us. Either at the Party Saturday night or at the booth with me or the office with Carol. This will insure that you receive your memento for bringing your Labor of Love to Oshkosh '86! I need your name, address, N#, and plans #.

Trailer Storage - In the past, some of our builders have found it a hassle to fight to the flight line with trailers. EAA will not let you store your trailer next to your plane on the flight line. If it would be helpful to those of you trailering your planes in, we can offer you storage behind our building. Just come to the office first and Carol or Livia will get someone to help you thru the gate in the back. This area is inside the fence of the airport and should be safe. Then you can put your plane together and taxi over to the flight line. I have to also mention that we can't let you camp in our "back yard"! There is camping all around us in the transient aircraft parking area but please don't expect to camp behind our building. Thanks!

Housing Hotline- I'm sure you already know how impossible the housing is here. If you need accommodations the best bet is to call the EAA Housing Hotline 235-3007 to get a room in someone's home. For the most part this has been a good experience and some people end up coming back to the same home year after year and become good friends! (Except for poor Charlie and Karen Terry last year! That place was a disaster.)

# moni



## Lost Moni Builders

Please contact Carol if you now of the whereabouts of these Moni Builders. Listed is their last known address.

Robert E. Stuart #176  
8481 Keele Street Unit 16  
Concord, Ontario, Canda L4K 1B1

Kenneth R. Runyan #123  
525 Enid Ave  
Kettering, OH 45429

Lincoln R. Noe #121  
3020 Montana Ct.  
Manhattan, KS 66502

## FIRST FLIGHTS

Russell Post #34  
7764 Sheridan Rd.  
Melbourne, FL 32904

Russell first flew on June 26. He called with this info:

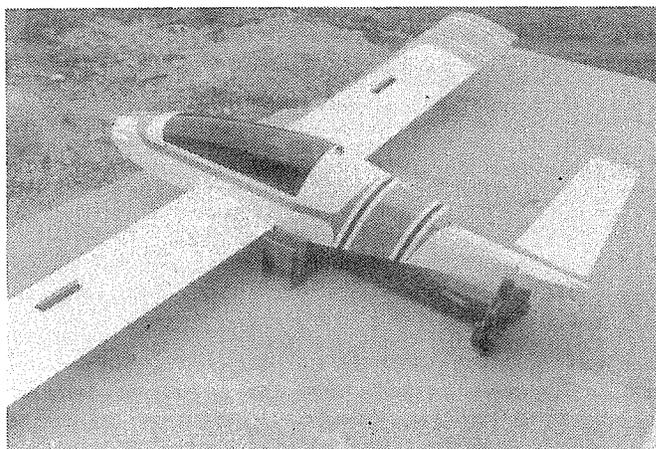
As of June 30 he had 5 hours with 5 landings in two days! Congratulations Russell!!!

## NEWS FROM BUILDERS

Alfonso Hernandez Garcia #302  
Apartado de Correos No 93  
Seo de Urgel Lerida  
SPAIN



We recently received these photos from this project in Spain. It certainly looks like he is ready to fly anytime now!!



Larry Garrett #112  
94-693 KAMALO  
Waipahu, HI 96797

Michael Sullivan #274T  
2 Tudor Court  
Amherst Road  
LONDON W13



We recently received a letter from Larry at his new home in Hawaii! He had his Moni shipped over but hasn't had a chance to fly it yet. He writes: "I'm sending a couple of pictures taken in OK of my van custom Moni tire cover, my trailer, and the Moni piece of the rainbow T-shirt. You might assume that I am still proud of my Moni....."

Larry also won another trophy at the Veteran's Day Airshow at Fairview, OK before he left! I'm not sure you'll be able to read what the back of Larry's trailer says in the photo so I have reprinted it for you here:

Yes. Inside is a Moni Motorglider.  
"A Piece of the Rainbow"  
Ultimate Fun Flying

## IN THE NEWS

The Moni has appeared in several magazines this Spring so I thought I would share this with you.

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

Gerry's Moni was in the July issue of Sport Aviation under What our Members are Building. I know it is a great feeling to see your own beautiful bird in full color like that!

Mike sent us the April 1986 Issue of Pilot magazine (printed in England) which features the Moni on the cover and a flight report about #274 by Captain John Allison. He writes about John, "John Allison, who wrote the Pilot article, is a Royal Air Force Phantom pilot, and well into our Historic Aircraft Association so he has also flown hunks like the Corsair that is doing the rounds in Europe." I quote from the last paragraph of the article by John:

"I made four flights altogether in the Moni, including one short cross-country to Cranfield and a brief session of air-to-air photography: all were a delight. By the time I finished I had made the mental adjustment needed to accept the engine's two-stroke clatter as normal. Despite its small size and light weight the Moni is no toy, but a robust and practical light aircraft that can be flown in the normal range of weather conditions that most VFR private pilots would wish to fly in. It has enough performance to make cross-country flying a practicable proposition, and at a fuel consumption of not much over one gallon per hour, direct operating costs do not come any lower. Its safe and pleasant handling make the Moni the relaxing fun machine it was designed to be, but at the same time offers just enough spice and challenge - for example in the approach and landing - to sustain one's interest. In short, I liked the Moni: I wish I had one."

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Harald Millgard  
Ingelsgatan 12, 5781 31  
Borlange, SWEDEN

Also from Europe, came news that the Moni was in the Flygrevyns 1985 magazine published in Sweden. Mr. Millgard is a writer and photographer who wrote me that he was a pilot who had fallen in love with the Moni and would like some photos and info. He then did an article but I can't include any quotes here as all I can read is Monnett and Moni the rest is in Swedish!!

Tom Lappis #217  
 4709 Arlington #18  
 Riverside, CA 92504

Jim Lewis #175  
 11962 Salem Drive  
 Granda Hills, CA 91344

On the cover of April 1986 Soaring magazine there appeared a group of motorgliders with a little yellow Moni among them. It was the only one not mentioned in the "On the Cover", so we did some research and found it to be Tom Lappis! Also inside there was an article covering the Hemet-Ryan Rally with two Monis in the accompanying photos. Again no mention that these belonged to Tom Lappis and Jim Lewis. Thanks to Chris Spangerberg, one of the organizers, for identifying them for us. Congrats to Tom and Jim for joining in on what was a very successful motorglider rally.

## BUILDERS TIPS

Christopher C. Smith #114  
 P.O. Box 53  
 Waterbury, VT 05676

I love getting letters like Chris writes!!

"I just received my March/April copy of INAV-INK and as usual dropped everything to read it. I must say that I look forward to receiving the INAV-INK because it always gets the juices going and renews my optimism that some day I will finish my Moni!..... Now some tips that may help others. I'm sure that all of us have wished there was some way to dimple the wing and fuselage skins without having to go through the trouble of using the dimple die and rivet gun. I have found this to be very tiring and at times difficult, especially when the nail does not want to come out of the rivet gun. Enclosed is a drawing of a couple of parts I fabricated to get around this. ....

I use the Monnett dimple die set, but instead of using the dies in a rivet gun I made a holder for each die. Drawing 1 shows the holder for the male dies. Drawing 2 shows the holder for the female dies, and drawing 3 shows how the system is used. There are a few notes, so let me clarify them before I tell you how I work with these parts.

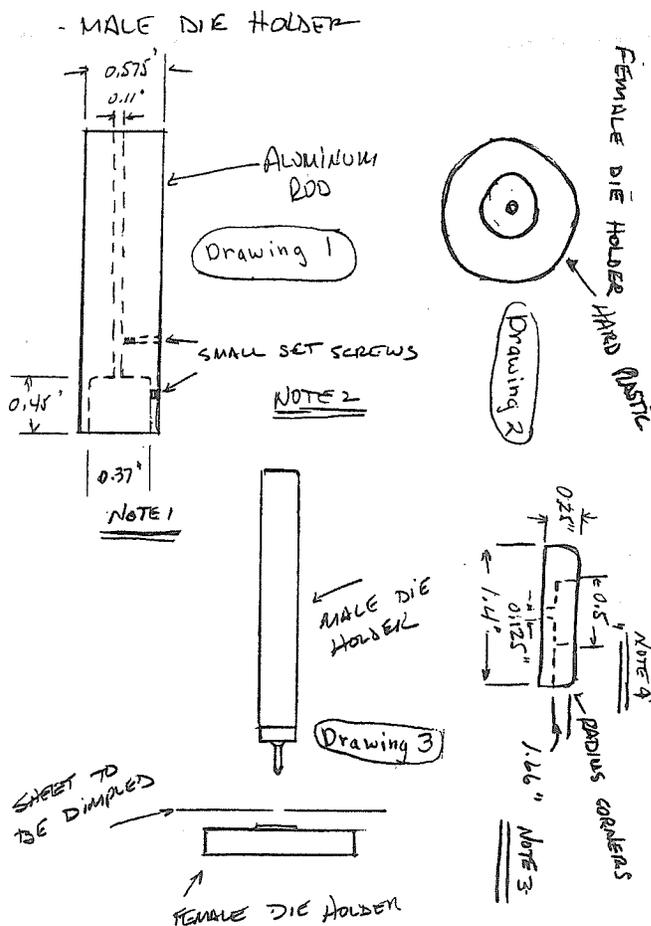
- Note 1: The 0.37" hole is centered in the rod and should be made so that the male die just slips in
- Note 2: One set screw secures the male die and the other secures the nail.

Note 3: The 1.66" hole depth should be adjusted so that the top of the female die is just above the surface of the holder.

Note 4: The 0.5" hole should be adjusted so that the female die is a tight fit.

To dimple sheet take the nail that would be used in the rivet gun and cut off the head. Insert the male die and the nail into the holder so that the nail point extends about .375" out of the end of the male die. Now tighten the two set screws. Press the female die into the holder.

Now place the female die holder on the work table and align the hole in the sheet over the hole in the female die. Insert the nail of the male die holder through the hole in the sheet and into the female die holder until the male die is resting on the sheet. Using a plastic mallet, strike the male die holder a few times and you will find you have a perfect dimple! Remove the tool, align the next hole, and continue.

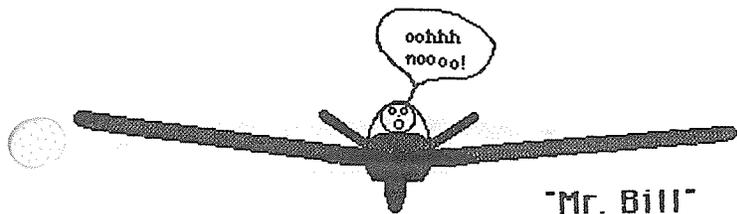


I have dimpled all of my fuselage skins this way in what must be a fraction of the time that would be necessary using the rivet gun method. I will be doing my wing skins the same way. There are two precautions that must be observed: the tool must be held perpendicular to the work to assure a symmetrical dimple, and only enough striking force must be used to create a correct dimple. If the tool is struck too hard the outside perimeter of the male die may leave a mark on the sheet.....

Now that summer is here I am at work again on my Moni and my target first flight date of Sept. 1987 still seems to be within reach. Michelle, my wife, and I are building a new home this summer which will have an airplane factory in the basement so that the upcoming winter won't slow me down this year...."

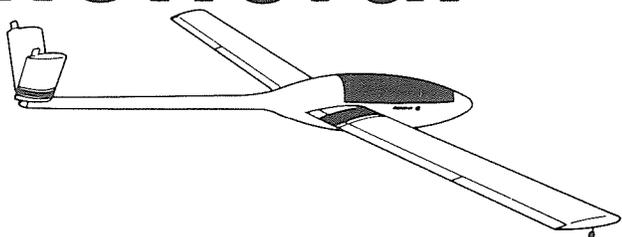
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(I stole this logo to end the Moni section from Bill Gustafson, Bloomington MN, who now has this new letterhead on his stationery!)



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# monerai



## FIRST FLIGHTS

Loudon Blair #312  
 Mervyn Farrell  
 39 Ballycraigy Rd.  
 Larne Co Antrim  
 NORTHERN IRELAND

On January 16th this Monerai was the first to fly on the British Isles! It was written up in the June/July Issue of Sailplane and Gliding Magazine and I quote a few excerpts from there.

About the builders: "Loudon Blair is a planning engineer with Martin Baker ( who make ejector seats) and previously worked with carbon fiber composites on the now abandoned Lear Fan project, where he was able to obtain invaluable advice on bonding techniques , and shear strength testing during the building of the Monerai. A BGA inspector, he has worked on even smaller aircraft, and has represented Ireland at the World Radio Controlled Model Championships. Mervyn Farrell is an electronic engineer and is Electronics Superintendent for the Department of Pure and Applied Physics at the Queen's University of Belfast. He was well placed to get help from the mechanical workshop team, many of whom have formerly worked with Shorts aircraft. He is also a full Cat instructor."

About the first flight: " Under an overcast sky the Monerai took an aerotow to 3,000 ft. and was soon to be seen soaring high above the ridge, landing after a little less than an hour as a warm front approached. Mervyn reported the handling to be pleasant and the controls responsive, although the glider feels generally very light (which indeed it is with an empty weight of 245 lbs. ) With it's short wing span, incursions into the lug's slipstream sound exciting too. Performance seemed up to expectations and the penetration at higher speeds good for a glider with only 450 lbs. all up weight. The wing loading works out at a respectable 5.75 lbs/sq.in. More detailed flight testing is being carried out in pursuance of BGA type approval. "

## NEWS FROM BUILDERS

Ray Bussey #56  
 6363 Pineridge Rd. N.E  
 Calgary, Alberta  
 CANADA T1Y 1M4

Ray writes for the INAV INK:

" I more or less agree with Russ Cedarholm's letter in the last issue and I also understand Betty's response so I thought I had better write in a few words. I have purchased Monerai # 56 secondhand,

about 50% completed, from the original buyer. I have since built a trailer ( needed to move the already assembled wing structures 900 miles home) installed a steerable tailwheel kit, bonded the tails, installed an aileron mod. kit, changed the control travel to +/- 9 and completed the spar tang mod. I have just arranged a wing skin bonding party for June 26th to bond my first wing. I have purchased the Konig Power Pod and I am considering doing taxi tests and my initial flight powered. I also own a Grumman Cheetah and have 800 hours fixed wing powered experience. I don't yet have a glider rating, but plan on a quick course just before test flying. I would be interested in hearing from any one on power flying my Monerai on its first flight. Has anyone ever done this? Hope to send pictures next time. ...."

Ed. Note: Thanks for the input, Ray. John recommends calling him for flight check talk before your first flight and yes, many Monerai's have flown first flight with power pods on.

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Jim Statler #31  
4815 Gray Fox Drive  
Austin, TX 78759

It's sure nice to get feed back like this:  
"...I purchased kit #31 completed and flying in April of '86. I've been going over the ship and also converting it to the power sailplane since then. With a little luck I hope to be flying in late August or Sept. You and your staff have been very helpful with my questions and orders. The ladies in the office are very pleasant and can answer most of the questions put to them. The ones they were not sure of, they found the right answer and let me know. It is very satisfying to know you and your staff are there to back up your product. I'll send some pictures in the near future. ...."

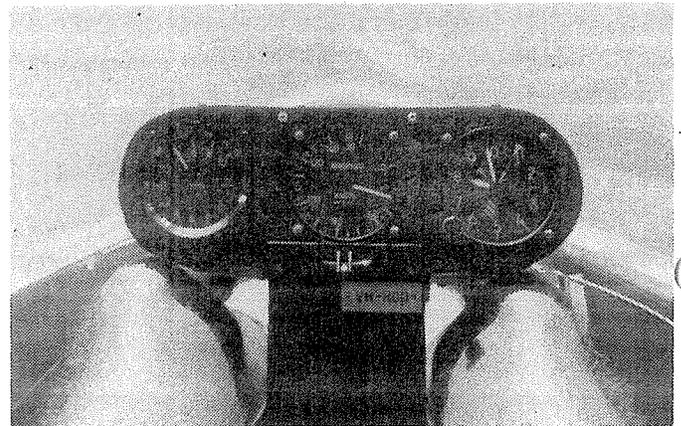
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Damon Smith #362  
96 Cardinal Ave.  
West Pennant Hills  
NSW 2120 Sydney  
AUSTRALIA

Damon writes:  
" The enclosed photo is the view from Monerai VH-HDD taken towards the end of the Australian

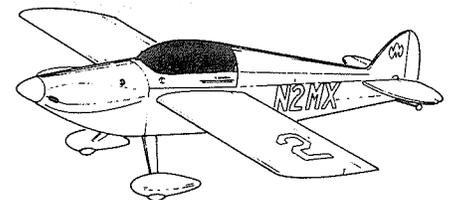
summer over Narromine, a major Australian Gliding Airport. It was a blue thermal day with lift going to about 9,500 ft. above ground level. As you can see I'm still climbing at 4 knots, cruising at 45-48 knots and about to climb through to 8,000 ft. (The yaw string shows how hard it is to fly straight while holding the joystick with my left hand and shooting the picture with the camera in my right.) My Monerai flies hands off but even with the modifications to the pitch bellcrank it is still very sensitive, especially when being towed aloft behind a Pawnee with over 300 horsepower upfront! Pitch sensitivity is about equal to that of a Bell Jet Ranger helicopter..... Have done about 30 hours now, and am looking forward to our Christmas Summer Season ..."

Ed note: Don't we midwesterner's wish we had a Christmas Summer Season!!



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# sonerai



## Sonerai Distributor Ignition System

In the May/June 1985 issue, we featured a drawing of the Sonerai Ignition System as we use it in the Stretched Sonerai. Also in our supply catalog we list the prices for the EV conversion and Distributor Fairing for use with this system. Now we are stocking something else needed - a 10 volt rectifying diode. This diode isolates the auxiliary battery in a two battery installation. You need one in the Sonerai system. They sell for \$8.50.

## NEWS FROM BUILDERS

Kel DeVries SII #1570  
Pres. EAA Chapter 145  
3351 Mick S.E.  
Kentwood, MI 49508

Kel recently asked for some brochures for a Mall Display their Chapter did. If any of you are involved in Mall Displays or Fly-Ins and would like some mini brochures to give out, we would be happy to supply you with them. Just give me a call. I usually also stick in a couple of complete info packs just in case someone is seriously interested! Kel writes about his experience:

" Our EAA Chapter would like to thank-you for the promotional material you so generously provided for our Mall display. The Sonerai was popular, and the pictures especially attracted attention and we used all the material you gave us. We were able to direct several people toward your company for plans or materials, so you may get some business from them. I personally was very pleased to " talk Sonerai" for several days, and people were usually very surprised at it's performance and looks, and loadable features. It was a very successful display, and this mall has asked us to return next year. ...."

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Ron Paulbicke #1664 IIL  
Wheel World  
Niawa Star Route Box 334-A  
Highway 34 East  
Park Rapids, MN 56470

Ron sent me this newspaper article which appeared in his local paper sometime ago. It is great to see local support for homebuilt projects!

### Sonerai II has flawless flight

For one Park Rapids resident, Nov.6 will go down as the date of an aviation first. Ron Paulbicke's homebuilt airplane made its maiden flight Wednesday afternoon, amid cheers of delight from onlookers at the Park Rapids Municipal airport. Construction of the Sonerai II began a little over a year ago. He explained, ' I got the kit from Monnett Experimental of Oshkosh, WI , and started working on Oct. 28, 1984. When I started it, people kept telling me it would be a two or three year project, but my goal was to have it completed in one year. ' The airplane was an intensive project for Paulbicke, but he did take time off from its construction. 'It was started the end of October, and I worked on it November and December. January and February were devoted to snowmobile racing so no real work was done on the plane until March and April. Then in May it got shelved again because of the go-karts, and it stayed that way until

September.' He estimated approximately 1200 hours and \$6500. went into the plane. ' I did spend long days working on it when I did work. My wife, Carol, said she was an airplane widow because some days I would start working on it at 10 am and at midnight I was still out here in the shop. But she was great and lended a helping hand when it was needed.' He added that in order to be classified as an amateur, 51 percent of the craft had to be constructed by the person or persons involved. 'People think that when it comes in a kit, all you have to do is assemble it and it's ready to go. I got a box filled with tubing and things like that. I cut every piece of tube here in the shop with a hacksaw and welded it all together.'

He added a modified 2275 Volkswagen racing engine, designed for use in a dunebuggy, as well as electric start and other extras. 'I also found the merchants of Park Rapids to be a wonderful source of airplane parts. I found nuts and bolts at one place, a hi-tech \$2 compass at another, misc. aluminum at a third, paint at a fourth, and a carburetor at a fifth. ' The two-seater plane boasts an 18-foot-10 inch wing span, and a length of 18 feet-8 inches. It's maximum weight, including passengers is 1000 pounds, and the engine red-lines at 200 mph. With a 10 gallon gas tank, Paulbicke figures his range to be 300 miles on a tank. 'At 150 miles per hour, at five gallons per hour, 300 miles is my distance.'

However the first 40 hours, he is limited to a range of 50 miles. ' It is supposed to be 25 miles, but there are no airports within that range, so the inspector made it a 50-mile radius. Also, I have to be solo-no-passengers for those 40 hours.'

Paulbicke came awfully close to the one-year mark, and had another deadline to shoot for. 'I had decided I wanted to take my first flight in the craft on my birthday, which was Nov.5. Everything looked good. The inspector came out Nov. 4, and gave me the go-ahead, but the weather became the deciding factor. Tuesday was just too windy to take it out , so we settled for Wednesday.' Paulbicke's first trip was filled with apprehension. 'At least with a race car you can stop and get out and adjust the thing. That is not the case with an airplane. Everything better be right the first time out because there is no second chance. It was a super flight, and the plane took off by itself because of its horsepower. The controls on the craft are light. It seemed all I had to do was think up and it would go up, or think down and it would go down.' He encountered no major problems. 'The engine ran good and the heater works perfectly. I had the plane up to 160 miles per hour and estimate the roll rate would be about one-and-a-half seconds. Landing the aircraft was another important task. I kept thinking about the people watching me, and I didn't want to let them see me crash. The flight manual that came with the plane said there were no unusual characteristics about the plane, so I took it at that, and came down to a normal three-point landing. Landing the second time I discovered I had a flat tire, but that was the only hitch.' Paulbicke has been flying on his own since 1959, and served as a jet engine mechanic in the Air Force. He has also built a number of race cars. Although this is the first plane he's built by kit, it is sure not to be the last. 'I've already decided what comes next. It is going to be a miniature FW190 - a half-scale fighter plane.'

# FIRST FLIGHTS

Clyde Schnars S11L #978  
10435 Turner Road  
Roswell, CA 30076



Clyde writes:  
"I finally got around to taking a picture of my completed Sonerai III. I'm really pleased with how well it turned out. However, I would like to find more time to enjoy flying it. The first flight was Dec. 28, 1985! ...."

In closing this month, I find myself being very sentimental and it has nothing to do with my children or the business this time. My 25th High School Class Reunion is July 26th! I thank the EAA for starting the convention later this year so I could make it. It will be fun to see if anyone else has grey hair and has gained a few pounds in 25 yrs. (Well, at least I'm not a grandma yet!) Another monumental item, John and I are celebrating our 20th Wedding Anniversary in August! Luckily it is after all the Fly-In excitement is over and we can really enjoy .

We look forward to enjoying your company and celebrating another Oshkosh with "you-all" very soon,

*Betty Monnett*

all I had to do was think up an  
and it would go down the  
The engine for good and the  
the plane on a 100 mile per  
would be about 100 and  
available was and the flight



Oshkosh, WI 54903  
P.O. Box 2984

