

SONERAI NEWSLETTER

OCT-NOV-DEC 2003

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BRIAN DEMPSEY'S SONERAI I AT OSH 2003

As you can see, Brian's airplane, #8 Miss Annapolis, is a work of Sonerai art. This very clean 1600cc VW-powered airplane holds a couple world speed records at over 180 mph, and with Brian at the controls, was National Formula Vee Champion for seven straight years. It just goes to prove that you can make one of our little VW-powered airplanes go quite fast if you put your mind to it.

SUMMER WITH THE SONERAI

As we roll into the months of autumn, and the days get shorter and colder (at least here in the northwoods), it's fun to look back at the logbook to review the summer's flying. This summer was a good one for the Sonerai and me. We went to a few fly-in breakfasts. We flew out for few breakfasts and lunches that weren't fly-in's. And

we went to two really nice weekend fly-in's, and of course, Oshkosh.

2nd Annual SAA Fly-In: The first big event of the summer was the 2nd Annual Sport Aviation Association Fly-in at Frasca Field in Urbana, IL on June 13, 14, and 15. After attending the 1st Annual event last year (see JFM-'03 issue), I decided that the 2nd annual fly-in was a "must-do" event. I wanted to get there, even if I had to drive.

Since it was a three-day event, I took a vacation day with the intent of flying down Friday morning, and returning on Sunday. I had volunteered to present a forum on Sonerai's and VW engines on Friday, so I had another good excuse to go. When Friday came though, mother nature and the weather gods got together to make things difficult (actually impossible). When I checked DUATS first thing in the morning, the forecast was for thunderstorms across the northern half of Illinois most of the day. And of course, this time the predictions were right on the money. I spent the entire morning at home watching the Weather Channel. The storms billowed up and completely covered the upper half of Illinois by noon, and they stayed there most of the day. Needless to say, I called the hotel in Urbana and cancelled our reservations. The forum wouldn't happen, and the trip would wait until Saturday. One thing you learn about flying for fun is that you must remain flexible.

By Saturday morning, all the crappy weather moved east, and the day dawned clear with tailwinds. So, we headed south to spend the day. Like last year, I flew down with Keith Tridle, my hangar partner. He was in his new Wagabond, and of course, I was in N99FK. We had great flying weather until we got about 40 miles from Frasca. Because they had gotten so much rain the day before, the atmosphere was pretty well saturated with moisture. That converted into early morning fog, which was just lifting as we approached Urbana. The visibility went from 20 miles to about three, and the scud had a ceiling of about 800 to 1000 feet agl. The pucker factor was a tad bit higher for the last twenty minutes of the flight than for the first hour, but by the time we entered the pattern, the visibility had improved to about five miles, and got better as the day wore on.

As it was last year, the fly-in was just a lot of laid-back fun. There was a really nice collection of about 100 homebuilts, classics, antiques, and warbirds, and most importantly, the people who came with them. That's what this fly-in was about. Friends and their Airplanes. There were no commercial vendors and no advertising hype over the PA. Just good folks and good fun.

After spending the day looking at airplanes and catching up with old friends, we headed back to Burlington (after the obligatory low pass), and had an uneventful flight home. It took a little longer since we had a bit of a headwind, but it was a nice evening, so we didn't mind.

With any luck, there'll be a 3rd Annual SAA in 2004. If you're interested in coming, it's open only to Sport Aviation Association members. To join, all you need to do is send your name and address to Sport Aviation Association, P.O. Box 2343, Oshkosh, WI 54903-2343. There is no formal dues structure, as each member decides the monetary value of his membership. You receive the SAA quarterly publication, **To Fly**. Check out their website at www.sportaviation.org.

Oshkosh 2003: Of course, at the end of July, it was time for the annual pilgrimage to Oshkosh. As in years past, I flew up the Sunday morning before it all started to avoid the traffic. A check of the weather showed it to be nice at OSH, but it was less than ideal at Burlington. I waited until the visibility was approaching acceptability, and launched into the haze. Unfortunately, I ran into a wall of fog about 20 miles out, and had to turn around and go back home. After an hour of checking the weather and watching it slowly get better, I launched again. This time the ceiling and visibility was just good enough to fly, so I pressed north. After about 40 miles the clouds disappeared, and it was an uneventful flight to the Ripon/Fisk approach and into OSH with a landing about half way down 36L. As usual I was called an "RV" by the Fisk controller and the tower guy until I rolled off the runway. The tower guy then called me a Sonerai and apologized for calling me an RV. I keyed the mike and told him it was OK to refer to me as an "RV-1½".



Yours Truly at OSH '03

This year the Custom Aircraft Parking crew put all of the auto-engine airplanes in with the 1000 hour and other special airplanes, so I parked with a pretty interesting bunch of machines, and we were pretty tightly packed. That meant that there were no other Sonerai's near me. In fact, there were only two other Sonerai's on the grounds while I was there. Jeff Lange brought his nice, but still unpainted, Sonerai I from across the airport, and Brian Dempsey trailered his famous Sonerai I, #8 Miss Annapolis, from his home in Maryland.

As usual, the week went very quickly. The weather was both good and bad. We had a fair amount of sunshine, but it seemed like we got some sort of rain shower or thunderstorm every day. On Wednesday, I was asked to fly in the Homebuilt Parade of Flight again. When we pulled our airplanes out in front of the flight line to line up for the Parade about an hour before it started the weather was gorgeous. Sunny and a bunch of cumulus in the sky. As the time came for us to do our fly-by's, the western sky had turned dark and ominous.



Jeff Lange's Sonerai I

There were 21 airplanes scheduled to fly in the Parade, and I was number 11. As I rolled into position to take off, I was very concerned if I was going to have enough time to take off, fly my two passes, and land before the rain hit. Well, I didn't have to make the decision. As I was cleared to go, and brought the throttle up, the engine started running very badly about the time the throttle hit the stop. Needless to say, I aborted the takeoff, and rolled into the grass. For some reason, the engine idled well, but wouldn't take the throttle. And of course, it had to do this in front of 100,000 people. Fortunately, I had just enough time to pull the airplane back to her parking space and tie her down before the weather arrived. As a side note, the Parade was stopped after two more airplanes were launched, so I really didn't feel too bad for not having flown.

On Thursday, after spending the night before trying to figure out what the problem might be, I checked everything I could think of on the airplane that might have caused the missing. I couldn't find anything. I then pulled her out in front of the flight line, and started her up. With Allen Goins holding the tail, I ran her up to full throttle several times, and by the fourth try the missing stopped. It just went away.

The conclusion I came to was that the missing was caused by left-over primer fuel lying in the bottom of the intake manifold. How can that be, you ask? My HAPI UltraCarb is a side-draft carburetor. To accommodate its mounting, the bottom of the intake manifold has a 90° elbow. When I used the primer during the starting process, apparently some of the fuel pooled in the elbow and was unaffected by the airflow through the manifold at idle. When I went to wide-open throttle, the increased airflow stirred up the pool of fuel, making the mixture too rich, causing the miss. When I did the test runs, it took several tries to get rid of the extra fuel. After that it ran fine.

(Actually, there was another theory proposed to explain the airplane's reluctance to fly. We figured that the airplane was also looking at the black skies to the west, and in her infinite wisdom, decided it was wiser to remain on the ground. Who knows.....?)

After that excitement, the Sonerai Builders Forum went pretty well Thursday afternoon. There was a nice crowd (which seemed to get a lot bigger when it started to rain), and I wasn't heckled too badly. By the way, if you're interested, all of the forums are recorded by EAA, and are available for purchase. Just give them a call.

On Friday evening, we had our first Sonerai Builders Picnic. Jeff Lange was kind enough to offer the use of his hangar over on the northeast corner of the airport. Steve and Linda Bennett supplied the food, which Jeff prepared on his grill, and about 35 of us had a great time. Jeff convinced Brian Dempsey and me to get up and talk about our Sonerai's, so after babbling at the forum on Thursday for an hour and a quarter, I got to do it some more. It was fun, and hopefully we can do the picnic again next year.

Because the weather had been touch-and-go all week, a review of the forecasts with the guys at the FSS revealed that I should bump my departure from Sunday back to Saturday so I wouldn't get fogged in. So, on Saturday morning, I departed about mid-morning for a simple 45 minute flight home in clear blue skies. I returned to OSH that afternoon in my trusty Ford Ranger, and spent the rest of Saturday and Sunday morning shopping for goodies. I departed a foggy Camp Scholler about noon, and headed home. It was another week well spent.

MAAC Grassroots Fly-In: The last fly-in that I went to was the Midwest Antique Airplane Club Annual "Grassroots" Fly-In at Brodhead, WI on September 5, 6, and 7. Again, Keith and I went and camped

with our airplanes for a couple days. (Yes, I can actually pack a tent, sleeping bag, air mattress, and three days clothes, along with my tie-downs in a Sonerai.) This fly-in is another one of those members-only affairs, and was another weekend of total immersion in old classic airplanes.

The airport at Brodhead is privately owned, and run by the local EAA Chapter. It has three grass runways, a bunch of hangars just crammed with old airplanes from the 20's, 30's, and 40's, and an old clubhouse/hangar. It's the perfect place for a bunch of old airplanes to gather.



Camping at Brodhead

And gather they did. We had three days of absolutely perfect weather, and they almost ran out of room to park them all. On Friday, we spent the whole day either looking at the airplanes that had already arrived, or sitting in the shade by the runway watching landings and takeoffs. That evening we were treated to an old-fashioned fish boil, which was marvelous. On Saturday, it was more of the same, and included exploring all of the open hangars.

We decided to head back home Saturday evening, after two nights of camping and two full days of airplanes. Again, another weekend well spent.

So, now the summer is over. Hopefully, there will be a few places to fly this fall before the snow flies. Then, I can start thinking of places to go next spring. Like Sun-N-Fun...

SONERAI NEWS

→ Great Plains News: The newest edition of the Great Plains Aircraft Supply Catalog is now available. Give them a call at 402-493-6507, or check it out at www.gpasc.com.

- Sonerai I Group on Yahoo: There is now a group on Yahoo dedicated solely to the Sonerai I. It's hosted by Jeff Lange, and you can sign up by going to <http://groups.yahoo.com/group/sonerai1> and following the directions.
- 4130N Sheet Shortage: For those of you who need to get chrome-moly sheet stock for your fuselage construction, you might want to get it as soon as possible. As I understand it, the only mill in North America producing the stuff has closed, and it is getting hard to find. I talked to folks at the AirParts, Inc booth at OSH, and they still have a good supply, so give them a call (1-800-800-3229).
- First Flights: No new first flights to report this time. Be sure to drop me a line when you fly your airplane for the first time. A picture would be nice, too.
- Sonerai Wing Construction Manual: It is now available. There are 18 pages of text, 85 photographs, and 12 drawings, as well as a complete materials and a tools list. If you would like your own personal copy, send me cash, check, or money order for \$25.00. Postage is included. (The manual is now included with the plans, so you new plans holders already have it.)
- Back Issues: Sonerai Newsletter back issues are available in two forms. A 3-1/2" diskette which contains 210 of the newsletter articles published by Ed Sterba from 1987 through 1995 is available for a mere \$10.00. There are also hardcopy back issues for \$3.50 each. I have the last two issues from 1994, and all of the issues from 1995, 1996, 1997, 1998, 1999, 2000, 2001 and 2002. If you want any of the above, send me a note requesting the ones you want and a check for the correct amount. The postage is included.

RAY BURGNER'S CRASH

Back on July 21, I received a phone call and several e-mails informing me of the fatal crash of Ray Burgner in his Sonerai II on the evening of July 20. For those of you who didn't know Ray, or at least of him and his absolutely beautiful Sonerai II, please take a look at the July/Aug/Sept 2001 issue for my article on his airplane, or better yet, get yourself a copy of the October 2003 issue of **Custom Planes** magazine, and read Steve Bennett's article. It goes without saying that, along with a lot of other people, I was greatly saddened at the loss of Ray and his airplane.

Of course, the first question asked was “How did this happen?” Was there something wrong with the airplane? Was he attempting a forced landing? The initial reports stated that the airplane had shed some parts before impact. Then, there were reports that a wire had been hit. And of course there was a lot of speculation from that point on.

To attempt to gain answers to these questions, I checked several sources, and here is what I know today. There were no problems with the airplane prior to the crash. Several witnesses stated that Ray was flying very low over the area. Apparently, he knew some people who lived there. He apparently got too low and hit a power line with his right wing and canopy, causing an abrupt nose-down impact into a sod field.

To quote Steve Bennett in his remembrance in the November 2003 **Custom Planes**, “Raymond was a talented and gracious person. Someone you were proud to know and be associated with. Raymond leaves behind a fiancée, daughters Amy and Tiffany, parents Howard and Donna Burgner, and brother Wayne Burgner. Our sincere condolences go to the Burgner family and friends. He will be missed!”

SPARK PLUG NOISE

For the past three years or so, I've been running Champion REJ38 shielded aircraft spark plugs along with the Slick mag in my 1850 VW. They have worked quite well, and were very easy to clean and re-gap because they were configured like the standard single-ground electrode automotive plugs. A recent inspection revealed that the ground electrodes were getting a little thin, so I decided to replace them.

A quick look at the Aircraft Spruce catalog showed that the price of new REJ38 and REL37B plugs that fit the 14mm holes in the cylinder heads had jumped from about \$17.00 a plug to almost \$30.00! WOW! I decided I wasn't quite ready to shell out \$120.00 for another set of new plugs. So, I bought four new Bosch W8AC automotive plugs from my friends Steve and Linda at Great Plains Aircraft Supply for a total of \$8.00, instead. Several years ago, I had purchased Steve's spark plug adapters that slip over the Bosch plugs and allow the use of the standard Slick shielded ignition wires that are on the airplane. (I “plugged” them in the OND-99 issue, so I guess this is another “plug”.) I had used them for a while, but didn't like the spark noise in the radio, and had switched back to aircraft plugs.

Well, for the \$112.00 difference, I thought that I could tolerate the RF noise after converting back to the Bosch plugs, but it still bugged me that it was there. It noticeably degraded my Comm reception, particularly with weaker signals. I decided that I needed to come to a solution. After doing a bit of reading, and poking around on the internet, I came to the conclusion that resistor-type spark plugs might do the trick. I found that the Champion 327 (RL87YC) plug is a direct replacement for the W8AC and it is a resistor-type plug. (Bosch also has the WR8AP, which is platinum, Autolite has the 425 or the AP425, and AC Delco has the R43FS.)

So, I went to my friendly NAPA store and bought four of them for \$7.53. I then went out to the airport and installed them, along with the adapters. And guess what? They work. The noise from the magneto ignition system is almost entirely gone. I also changed the secondary plugs from the Bosch's to the Champions. There is still a tiny little bit of noise, but it is way below my annoyance threshold.

Ah, progress. Now, if I can just figure out how to do the same thing with the 18mm plugs in my Lycoming O-290-G project.

RUDDER CABLE INSTALLATION DETAILS

One of the areas of the Sonerai building process that is not extremely well defined is the installation of the rudder control cables. This is particularly true of the Sonerai II. The Sonerai I plans and the IILTS plans do a little better job, but there are still a lot of questions about connecting the rudder pedals to the rudder horn. The following will help clear up some of those questions:

1. Type of cable: 1/8 inch, 7x19 aircraft cable is used. Either galvanized or stainless steel is acceptable, although the galvanized is slightly stronger.
2. Types of end connections: There are a couple of choices here. The first is the swaged MS20667-4 fork end. It requires a special, very expensive swaging tool to install it on the cable, but it makes for a very streamlined attachment. The second choice is the Nicopress 18-3-M sleeve, AN100-4 cable thimble, and AN115-21 cable shackle. A Nicopress tool is required to crimp the sleeves, but most good FBO's should have one, and if your local EAA Chapter has a tool library, they should have one, too. In all probability, either all

Nicopress will be used, or a combination of the two will be installed.

3. Cable Assemblies: If the MS20667-4 fork ends are used, cable assemblies can be ordered already swaged from Aircraft Spruce and Specialties for a reasonable cost. For all of the II's, a swaged fork will be used at the front rudder pedal and the rudder horn, and Nicopress parts at the rear rudder pedals. To determine the assembly length, measure the distance from the front rudder pedals to the rudder horn and add a foot to the length. Order two cables with a fork end on each end. The cable will get cut to make the connections to the rear rudder pedals. For the I, determine the length from the rudder pedals to the rudder horn, double it and add a foot. It'll be cut in half to make two cables. Nicopress parts will be used at the rudder pedal connections. Obviously, if all Nicopress connections are used, it'll only be necessary to obtain enough cable to do both sides.

4. Connection to the Rear Pedals: See the sketch below for the basic method. This is taken directly from the IILTS plans. Four 4" long x 1" wide 4130 straps will be required, two for each side. All holes in the straps are 3/16" drill. Nicopress connections are shown at the ends of the straps. The AN100-4 cable thimbles run directly on the bolts. For a complete description of the Nicopress installation process, go to Tony Bingelis' **The Sport Plane Builder**. (Note: If you don't have the complete set of Tony Bingelis' books, get them from EAA. There are four of them and they will be invaluable.)



RUDDER CABLE CONNECTIONS
2" - CLEVIS BOLT, CASTLE NUT,
FLATWASHER / COTTER PIN
1" - DOUBLE NICOPRESS SLEEVE,
ANB BOLT, CASTLE NUT,
FLATWASHER / COTTER PIN
5/8" - ANB BOLT, CASTLE NUT,
FLATWASHER / COTTER PIN

5. Rudder Return Springs: Return springs are required, and are mounted on the front pedals on the II's. They are at the pedals on the I's, also. The I and the straight II plans do not show any attachments for springs, so it will be necessary to weld tabs to the bottom cross tube at the firewall station and near the top front of each front pedal. Make sure the fuselage tabs and the pedal tabs line up. For the springs, go to the local hardware store spring selection and choose two springs that will fit your set up. An extension spring 4" long, with a 7/16" OD and 1/16" wire works well on my IIL.

6. Cable Fairleads: Piper nylon cable fairleads are used to guide the cables through the fuselage where they make small direction changes. They

are made up of two nylon halves and a steel retainer clip. The Aircraft Spruce part number is 05-05500. They fit into the 7/8" x .058" wall x 3/4" long tubes welded into the fuselage. On the II/IIL/IILT, they are located at Stations 77-3/8 and 154-3/8. On the IILTS, they are at Stations 79-3/8 and 172-3/8. On the I, they are mounted on the cockpit diagonals, while a pulley is used in the tail.

7. Turnbuckles: Although they are not shown in the plans, it is recommended that a turnbuckle be installed on each cable to allow fine tuning of the rudder pedal position and cable tension. For the II's, use AN135-8S assemblies installed between the rear pedal straps and the rear cables. On the I's, use AN130-8S assemblies between the rudder pedals and the cables. Be sure to safety wire the turnbuckles once the final position is determined.

8. Fabric Slot Location: Once the rudder cable assemblies are installed, be sure to measure and make note where the cables will exit the fabric after it has been installed and painted. It's much easier to do before than after. Use a soldering iron with a 1/8" pencil tip to cut the slots in the fabric.

RESERVE FUEL TANK INSTALLATION

by Ivan Martinez

I am a "Cheapskate" by birth, and I hated the idea of buying a rear gas tank. The two common placement locations didn't appeal to me also. After much pondering, an alternate mounting location was determined. A little research in my car magazine back issues also revealed a different source for the gas tank.

Get a VW or dune buggy magazine. In it you will find aluminum spool gas tanks for dune buggies. Buy a 10 gallon tank. The approximate dimensions of the spool tank are 10" diameter by 30" long. The tank comes with a non-vented gas cap (this is good). The tank also comes with mounting hardware, which can also be used. Next, cut 6 to 8 inches off one end of the tank (or what ever length it takes). Save the end because you are going to weld it back.

Next, cut some 1/4" aluminum tubing about 12" long. Drill a small hole just below the gas tank cap to stick the 1/4" tubing into the tank. Get someone to weld around the tubing and the hole. You can also weld the other end of the tubing to the tank to keep it secure. Make sure you leave some tubing sticking out of the bottom of the tank. You are going to use a gas hose on that end.

Use the hardware that comes with the tank to attach it to the back of the rear seat. Attach the tank below the storage compartment and above the aileron mixer (make sure tank doesn't interfere with the aileron mechanism). You will have to weld 4 tabs to the back of the seat to accommodate the tank hardware. Note that unlike the location on the plans, you don't lose your baggage compartment. Next, weld a female 1/4" pipe "T" at station 79 3/8". (I have a "stretch", the station may be different on others.) This is the station the rear seat back goes down to. The "T" has 3 openings. You place one up, one down, and one forward. On the one pointed down you will later screw a drain cock. (Note that this is the lowest point of the rear fuel system and you can test your fuel here at preflight.) On the one pointed up you will screw a "hose nipple" (nipple with 5/16" tube on one end and 1/4" male pipe on the other). You can now use 5/16" ID fuel line, and connect to bottom of fuel tank. Note that I used a finger strainer at the bottom of the tank.

You can now visit your local auto parts and purchase a low pressure electric fuel pump. Any "old" fuel pump was not used on my Sonerai. There was some research done. I don't have an electrical system and I didn't want a pump with a large electrical draw. I called the manufacturer of the fuel pumps sold at the auto parts store. They gave me the model number of their pump that drew the fewest amps per hour. The manufacturer is Master Parts Division, Fairfield, Illinois 62837. The part number for the pump is E8016S. Call them and find out who sells their pump in your area. The pump draws approximately .7 amps per hour and pumps 25 to 30 gallons per hour at 4 PSI (these specs are from memory but should be close). Another good feature of the pump is that it doesn't have a bypass and this should act as a one way check valve. The pump also comes with attaching hardware you can weld to your longeron (weld some place ahead of the drain cock). The pump comes with 1/4 pipe by 5/16 tube fittings. From the electric fuel pump you must run a 5/16" ID gas line and attach to the TOP of your front tank. This installation is up to you. I can't help you here. My tank is different than most tanks for some reason.

Now to the vent installation. At the same station 79 3/8", weld a vent tube thus...Using 1/4" chromoly tubing, cut a piece about 2 1/2" long...bend into an elbow. Weld BELOW the cross tube 79 3/8, one leg pointing up and one leg pointing forward (into the slip stream). Make sure the tube is about 1" down below the bottom of cross tube 79 3/8 so that it is in the slip stream. This will give you some ram vent pressure. You can now attach a 1/4" ID hose

between this tube and the one coming out of the rear gas tank.

Lastly, connect to your battery. Use an inline fuse, and by all means, DO NOT USE A NON 12 VOLT TOGGLE SWITCH. They will weld themselves ON. Use an aviation toggle switch. This is one place not to be a cheapskate. If you want, you can use a clear hose between the pump and the tank. This way you can see when you have pumped all your fuel out of the rear tank. This is a failsafe design...if something goes amiss you know you only have the gas in your front tank and must act with the front tank as your only source.

This installation is best done prior to covering your aircraft. Although this installation is exactly in the same location (lengthwise) as the plans, don't forget to work out your weight and balance. Enjoy your extra 6 gallons.

Ivan C. Martinez
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HOW DID HE DO THAT? By Bob Barton

The art of aircraft design is one in which each generation learns from the inspirations, and mistakes of its predecessors. A British biplane trainer of the period between WWI and WWII illustrates an example of an error, which has since been corrected.

The designers of this aeroplane, (I can't recall its make or model), had not thought to secure the wheel retaining nuts with cotter pins or of providing the left axle left-hand threads, to prevent the nut from loosening during taxi or takeoff. And so it was not an uncommon occurrence for a trainer to lose a wheel as it departed the aerodrome for a training flight.

And one beautiful day, this is exactly what happened, for as the little biplane rose gracefully from the ground, its wheel bounded playfully down the runway by itself. Now this was also in an era before airborne wireless sets were in common use. For this reason the ground crew had no way of telling the stricken aeroplane of its dangerous condition...and of course neither the student nor the instructor could see that the wheel was missing because the lower wing blocked their view of the bare axle.

Not to worry! The resourceful ground crew grabbed the stray wheel and gave it to the instructor of the next aeroplane in line, and told

them to catch the first aeroplane, show them the missing wheel, and thus warn them that they were in imminent danger of *pranging* when they returned to the aerodrome.

So they were off on their mission of mercy, but to the horror of the people on the ground, this aeroplane also dropped a wheel.

Join me now in the practice area as aeroplane No. 2 finally catches up with aeroplane No. 1. The instructor gallantly holds the wheel up for them to see. And what did they see? To their amazement, they beheld a man that had somehow contrived to remove his own wheel in flight, and was as proud as punch of his achievement!

Two ground loops later, headquarters got the message loud and clear: **We need to invent either radios or cotter pins.**



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HOLIDAY
SEASON**

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SPECIALTY WELDING CAN SUPPLY YOUR COMPLETELY WELDED SONERAI FUSELAGE AND OTHER WELDED COMPONENTS. Contact Greg Klemp at *Specialty Welding*, W6461 County YY, Neshkoro, WI 54960, (920)293-8089 or (920)293-8007 (Fax)

For Sale: Sonerai II Stretch fuselage, prebuilt spars, ailerons, Monnett ribs, fiberglass cowling, wing tips, & wheel pants, nosewheel, tailwheel, canopy, Great Plains 2180 w/dual ign., Diehl case, starter, no alt. or intake sys, some instruments. \$8000. Call Steve Garn, 336-877-0318 (2/02)

For Sale: Sonerai IILS, fuselage and wings complete, on the gear, cowling,

canopy, needs engine and prop. \$7500. Don Jester, 417-466-3013 (1/02)

For Sale: Sonerai Parts. Complete instrument panel, Rand-Robinson 3-blade prop, Posa Supercarb, Slick Mag & harness, gascolator, 5-point harness. All new! Gary Harvey, (705)799-7448 (3/02)

For Sale: #68 Zenith Carb, \$75; Monnett X-casting, \$50; Monnett SuperVee prop extension ass'y, \$150; Monnett single-port intake manifold, \$50; Aero-Vee valve covers, \$25; 2" steel prop hub & plate, \$25. Jim Meier, (608)255-6773 between 8am & 5pm, or (608)849-9499 after 5pm (3/02)

For Sale: Sonerai II mid-wing, only needs paint and assembly, 1835 with dual ignition (Slick mag and Bosch 009). \$5000 OBO or trade. Greg Buckley, (559)226-5992, glbflyfun@cs.com (1/03)

Wanted: Sonerai II for Scout project on Navajo reservation. 90% complete or

flying. Robert Jorgenson, 718N300W 34-18, Blanding, UT 84511, (435)678-3436, robertjorgenson@yahoo.com (3/03)

For Sale: Sonerai II wing components. One kit w/front and rear spars, ailerons, cap strips, and hinges, \$650. One kit same as above except w/o rear spars. Two sets of 18 ribs, \$400 each. One set of 16 Quality ribs, \$450. Or everything for \$2000. South suburb of Chicago. L. Edwin Langeland, (708)389-6637 after 6 PM. (3/03)

For Sale: Turbo Revmaster engine, 94mm pistons, Warnke prop, 180hrs tt. \$4500 OBO. Kris Kampe (603)367-4322, kampe1@earthlink.net (4/03)

For Sale: B.J. Schramm "Rotorway" 100 hp engine. It is a flat, 4 cylinder, liquid-cooled engine, only factory run-in time. Pickled. Complete w/ Slick Mags, carb, etc. I am presently flying one on my Sonerai. \$2500. Fred Ninneman, (816)353-1161 (4/03)