

## New Service Center a Big Hit



att Tait (behind the wing above) and Rob Wisner (at the canard) are working on their Velocity in our new Service Center. Matt and Rob are both engineers with ties to the Detroit automotive industry. They both have been spending a lot of energy of late working on their aircraft lighting systems among other exciting projects.

One major development is the Millennium engine. A couple years ago, Matt decided to give up a promising career to devote his time and talent to the development of this new generation of aircraft engine. For this to happen, they needed an aircraft to do the flight testing. Matt intends to get some performance information using his standard RG with a 200 horse Lycoming and then change over to his prototype engine for comparison. The prototype looks a lot like a Mazda rotary, which is, in fact, how this all started. Matt is a racing nut with a lot of Mazda racing experience. The prototype engine will be run at a rather low RPM with a built-in turbo. The RPM is low enough that no propeller reduction is needed, yet over 200 horsepower is expected. How much over 200? Perhaps it is better if you find this out on your own. You can check out Matt's ideas by looking up his web

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#### The New "BRAZIL WINGS"

The picture at the top of page 3 is the first test wing we received from Brazil. For those of you who do not know, we have been working with a Brazilian company for the last couple years to design and build a skin/rib type wing. This is the same type

#### **New Service Center**

Continued from previous page

page at www.dragonaero.com and go to the engine info section. If you are like me, you will probably say, "I'll believe it when I see it". I know Matt well enough and have worked with him long enough to be able to say this without hurting his feelings. He is, however, without a doubt, the most confident person I have met in a long time and is absolutely, positively, emphatic and unwavering in his promise that IT WILL HAPPEN. I have been encouraging him as best as I can with the idea of an XL RG twin. The weight is right, the size is right, the horsepower is right and the price is right. We can put on full feathering constant speed props cut down to about 60" and turning 2900 RPM. Tip speed should be about 80% supersonic or about 500 + MPH. By putting the engines as close to the centerline as possible (prop tips about 2 feet apart) and canting them slightly, almost no adverse yaw would be seen in an engine out situation. We could then stretch the fuselage another foot or so and make it into a 6 place airplane. Since the engines are rather light, we could build in additional fuel tanks and fly coast-to-coast non-stop at speeds approaching 300 knots. We could also add pressurization and de-ice and... anyone out there got a napkin handy so I can start sketching this thing out !?!

....

by Duane Swing

wing construction used by Glasair, Lancair and others. Basically, the entire wing is made similar to our strakes with a spar and ribs separating the outer skins. Our testing process went something like this: First we took one of our foam core wings and attached it to one of the beams supporting our hangar. We then loaded 250 pounds at the tip and measured both the total deflection and the difference between the leading edge and trailing edge to determine total twist. We then duplicated this test with the Brazilian wing to determine if it was similar in both total deflection and twist. We found the Brazilian wing to be less in both total deflection and in twist. This basically tells us that the Brazilian wings are somewhat stiffer than the cored wings. Grafting this difference shows the Brazilian wings to be approximately 18% stiffer than the cored wings.

The next test was to determine total deflection and twist at 6 G's. We actually could only test to about 5.8 G's because this was all the weight we could find (about 4000 pounds). Our intent was to load the

## **Introducing Mike Schneider**



Pictured above, our newest Velocity member, Mike Schneider. Mike has over 12 years experience working on a large variety of general aviation airplanes including experimental, warbirds and antiques. He has an IA mechanics rating which qualifies him to sign off annuals on all general aviation airplanes in addition to the experimental. Mike is shown installing Vortex Generators (VG's) on one of our customer airplanes that just finished a conditional inspection. Flight tests after installation showed a 10 knot reduction in the indicated airspeed on the low end with no noticeable change in the cruise speed. This particular Velocity was flown for several years by Fred Shaw who was a paraplegic. Scott and I installed a hydraulic lift in the airplane to get him in and out. (old door design). Continued from previous page

wing to simulate the 6 G's. This is a total load that includes the fuselage, canard and main wings of 16,000 + pounds. After stacking the 4000 pounds on the wing, the measured total deflection was 7". We can now calculate that the wings should be good to at least 10 G's. This is all good news for you Velocity builders who want the fast build option on wings. Now for the bad news. Getting production wings requires a sizable investment in materials and manpower by the Brazilians, something they apparently were not capable of handling. Even with orders in hand that total over 27 sets, borrowing money for them is just not easy. We are working on a solution and should have things in hand shortly.

#### SERVICE CENTER

Our service center has been busy with condition inspections on several of our customer airplanes. Mike, our IA and super mechanic, has already found things wrong that could have easily caused engine failure. In one case, he removed the impulse mag to inspect for a Bendix AD note and found the nut that holds the impulse coupling in place had the cotter key missing and the nut was only about 3 threads from falling into the accessory case. We don't know why it was never re-installed after someone had done some mag work but this is how he found it. Mike also has done a lot of research on the engines and accessories we use on experimental airplanes and has made several calls to the FAA to make sure he got it right. Here is what he has found.

Just installing a Lycoming (or whatever) engine in an experimental airplane does not result in the engine becoming experimental. As long as the engine remains as Lycoming produced it without any changes to anything, then the engine is considered still certified and could be removed



Pictured above is the first test wing from Brazil.



If you have been in our shop recently, you have noticed a new face in the machine shop. Frank Ware (picture above) joined us a couple months ago to run our machine and welding shop. Frank comes to us with many years experience operating a much larger machine shop in the Sebastian/ Vero area. He is constantly finding ways to improve the products we send out with the kits and has contacts all around the area for cost comparisons. As an example, we will soon be including Ceramic Coated stainless steel exhaust systems with the engine install kits that provide lower cowling temperatures and a cooler running engine. Our seat back tilt supports will soon have the ability to adjust the tilt angle and the aluminum parts will come in a gold anodized finish. Frank also has re-designed the yoke control system to provide less "slop" in the system at a reduced cost for us. These are just a few of the many assets Frank brings to us – and you, our customers, will ultimately be the benefactor of his talents.

Continued on next page

#### **Factory News**

Continued from previous page

and re-installed in whatever airplane it originally came out of. If you don't want to comply with the AD notes associated with that particular engine, then the only out is to remove the data plate. The engine at that point is no longer considered certified and AD note compliance is not mandatory. By changing just one item that was not a part of the original certification will result in the engine becoming experimental and the data plate must be removed according to the FAA. What this means is that the modification to the intake tubes, or the installation of an electronic ignition would be considered a non certified modification and the engine is now automatically experimental and the data plate must come off. This is also true of the accessories attached to the engine. When Mike does a condition inspection, he will check the AD notes on things like magnetos, fuel servo, fuel pump and the like, to make certain they have been complied with. If the engine log is complete, then this information will be listed in the log. If a history of the engine cannot be determined and there are no log entries that a certain AD note has not been complied with on an accessory, then Mike will make sure compliance is done and a log book entry made.

If you need a conditional inspection or work done on your Velocity, give Mike or me a call and we will set an appointment for you. If your interested in the "Head Start" program, let us know also so we have the proper people on hand to help.

#### **HELPING HAND PROGRAM**

Most of you know what our Head Start program is for but what is this "Helping Hand" thing? Boy have I ever opened a can of worms on this one. Let me explain.

The other day over lunch I was talking to Mark and Scott about our claim that a Velocity with all the fast build options could be built in 800 hours. Many of you have said that this is just not possible and that even a professional builder could never finish a Velocity to first flight in 800 hours. Soooo that became a challenge. Could it be done or not? If so, why not capitalize on it. If not, we should remove it from our advertising. Here is how it's going to work. If one or more of us, (Scott and me) put in 400 hours and a first time builder working with us puts in another 400 hours, we should be able to finish the airplane in the advertised 800 hours. If you divide 400 hours by 8 hours per day, this will come out to 50 days. Allowing some freedom for error, we have decided to take one of our Super Fast Build XL RG's and build it to first flight in 60 working days. To make this happen we are farming out the interior, paint and instrument panel. Everything else we are going to do ourselves in the new Service Center. We are also ordering for scheduled delivery every component needed to finish the airplane. Things like the engine, propeller and any other high lead time item have already been ordered. If it can be

done, we will be hiring someone capable of working full time on just such a program for the future and offering it as a package with a guaranteed price. Our only requirement for the official builder is that he be able bodied and have the desire to see the program to completion. We will not work on the airplane in the owner's absence.

For our first attempt, this person is Richard Affenit. Richard is a retired airline captain and claims he is as fit as a fiddle and ready to spend the next 60 days working his tail off. Stay tuned.

#### **OPEN HOUSE**

Our February Open House was again attended by about 70 of our builders and wannabe's. At one time, I counted 12 flying Velocities on the ramp. It is great when some of you flying guys attend, as this gives some encouragement to those who are either still working or the wannabe's that need this type of encourage-



Saturday May 6, 2000	- Factory's quarterly open house in
Sebastian Florida (X26)	

9:00am	Coffee and donuts
10:00am	Workshop: To be announced - check our web site
	or call us
Noon	Lunch
1:00pm	Workshop: Building Q&A
3:00pm	Demo rides in the XL

Please be sure to call the factory and RSVP! Friday arrivals can book a room at the Key West Inn at Captain Hiram's here in Sebastian. Call 800-833-0555 and mention Velocity to get a corporate rate. When you call the factory to RSVP, let us know when you plan on arriving so we can make arrangements for transportation, etc. ment. We intended to have a 12 airplane fly-by but gusty winds prevented this from happening. Our next open house is scheduled for May 6th. Let us know if you will be in attendance so we can prepare the food. Check out our web site for a list of activities.

#### NACA Scoops

We have finished the NACA ducts on a 200 horse Lycoming powered Velocity and can report some good news. First of all, this was a conversion from the previous arm pit scoops and briefly here is what we found. Using the same NACA inlets as we used on the SUV and using the existing plenum on top of the Lycoming, we found the average cylinder temperatures reduced by a minimum of 50 degrees F. As an added bonus our cruise speeds have improved by at least 5 knots (perhaps more). We are now in the process of closing off some of the previous cooling openings and will be moving the fuel injection air from the under wing scoop to picking this air off the NACA ducts. This should also give us another two or three knots in cruise.

We haven't had the time to make a molded NACA scoop but the connection between the firewall and the plenum is complete and can be sent to those who want to make this change. Making the NACA scoops by using the existing top of the fuselage as the bottom of the NACA is certainly possible (it is how we have did it) and the plans are available for those who want them. Check with Daren for prices for the ducts and instructions if you want to go this route. Once we have the molds made for the NACA's, this will become standard with all Elite and SUV airplanes sold. We will also post these prices on the "Velocity Store" pages of our web site.

Our next project will be the IO 540 Lycoming in the XL. Because of the success in the SUV and the Elite, we feel confident in the success of

the XL and, once tested, this too will become the standard.

#### **VORTEX GENERATORS**

We have tested the VG's in every configuration possible and can now offer them to our customers, complete with instructions, for \$125 per airplane. This is \$270 less than the best price we could find before. We have found a reduction in the minimum speed of at least 8 knots. This results in a much safer airplane should you be forced to land off airport. An additional benefit is the increased roll response at the normal approach speeds. There is not a noticeable decrease in the cruise speeds.

Call us to order your set. Ask for Daren.

#### E-MAIL ADDRESSES

We have updated our internet e-mail system and you can now identify the person you want to e-mail. Please refer to the following menu: (love this computer language)

DuaneS@velocityaircraft.com ScottS@velocityaircraft.com MarkM@velocityaircraft.com BonnieS@velocityaircraft.com NancyM@velocityaircraft.com BrendanO@velocityaircraft.com DarenJ@velocityaircraft.com MikeS@velocityaircraft.com

If you need:

- builder assistance e-mail Scott or Mark

- billing information, e-mail Bonnie

- sales or scheduling of our Service Center, e-mail Nancy

- schedule flight training, e-mail Brendan

- to order parts, e-mail Daren - conditional inspection or maintenance matters, e-mail Mike. If all else fails, you can still call us any time. We now have 6 incoming phone lines, one is dedicated to our e-mail, one is for the fax and the rest is for you. Remember to use the unlisted 561-589-0309 "Builder Hotline" number anytime and specif-

### If sending Digital Photos for publication

Often times, the digital photos I receive are low resolution (72 dpi) files, which are fine for viewing on a monitor (or the internet), but not acceptable for printing. It may be a great photo and I'd love to use it in the newsletter, but if the resolution is low, it will print fuzzy.

If the digital specs below are unfamiliar to you, it would be best to just mail me the glossy prints, and I'll scan them in our studio. If you are using a digital camera (thus no glossy prints available), then set your camera for the best quality resolution (fewest number of photos). At your camera's best quality resolution, often the dpi is still at 72, but the size is large enough that I can modify it to meet our specs.

Regarding any photos, drawings, or line art...

Below are the specs that I need to maintain quality reproduction on the printing press. We print the newsletter at 150 line screen, which means that we need a resolution of about 300 dpi for photos, drawings, or line art.

Width of any photos, drawings, or line art are based on the column width:

1 column wide = 2.3" width 2 columns wide = 5" width 3 columns wide = 7.4" width

Photos are usually saved as JPEG files. Drawings with limited colors can be saved as GIF files.

If you have any questions about this, you can call me during work day hours (eastern standard time). My phone (904-461-6912) rings in both my home and office, so please limit your calls to work day hours.

Thanks in advance, Rick L.

## Calendar of Events

• April 9-15, 2000 - Sun n Fun EAA Fly-in Convention Held in Lakeland, Florida, USA each year. Velocity is there as an aircraft manufacturer in the aircraft display area. Velocity also hosts a workshop/seminar on building a Velocity each year. Visit our display at MD-11.

• April 10, 2000 - Sun n Fun Velocity Dinner: Sign up for Velocity's Sun-n-Fun 2000 Dinner, held on Monday night April 10th, starting at 6:00pm. The dinner will once again be held at the Imperial Lakes Country Club. If you need directions, there is a map printed in the Velocity Views Newsletter volume 17, page 12. Cost of dinner is \$20 adults / \$10 children. Menu includes a buffet of chicken marsala, carved top round, buttered egg noodles, fresh garden medley of vegetables, salad bar, dinner rolls & dessert.

April 12, 2000, Wednesday 9:00am - Velocity Forum at Sun n Fun held in tent #7

- April 28-30, 2000 Sportair Velocity Workshop, Griffin Georgia
- May 6, 2000 Factory Open House and Workshop

Factory's quarterly open house in Sebastian, Florida (X26).

Please be sure to call the factory and RSVP! Friday arrivals can book a room at the Key West Inn at Captain Hiram's here in Sebastian. Call 800-833-0555 and mention Velocity to get a corporate rate. When you call the factory to RSVP, let us know when you plan on arriving so we can make arrangements for transportation, etc.

• June 10, 2000 - Velocity West Coast fly-in at the Ramona Airport, Ramona, California. Arrivals in the morning, speakers all day, B-B-Q dinner in the evening. More details will follow.

- June 24-25, 2000 Rocky Mountain fly-in (Longmont, Colorado)
- July 5-9, 2000 EAA NW Regional fly-in at Arlington, Washington
- July 26 August 1, 2000 EAA Oshkosh (Wisconsin)
- August 12, 2000 Factory Open House and Workshop
- Factory's quarterly open house in Sebastian, Florida (X26).

Please be sure to call the factory and RSVP! Friday arrivals can book a room at the Key West Inn at Captain Hiram's here in Sebastian. Call 800-833-0555 and mention Velocity to get a corporate rate. When you call the factory to RSVP, let us know when you plan on arriving so we can make arrangements for transportation, etc.

• September 9-10, 2000 - Mideast EAA fly-in (Marion, Ohio) - Velocity Inc. is looking for one of our builders with a "flying Velocity" to attend as our representative (compensation provided)

- September 9-10, 2000 Third Annual Golden West fly-in (Sacramento Executive Airport, California)
- September 13-17, 2000 Reno Air Races (Steadfield, Nevada)
- September 29 October 1, 2000 CSA's Rough River fly-in, Kentucky

• October 6-8, 2000 - East Coast EAA fly-in (New Garden, Pennsylvania) - Velocity Inc. is looking for one of our builders with a "flying Velocity" to attend as our representative (compensation provided)

- October 12-15, 2000 Copperstate fly-in (Mesa, Arizona)
- October 19-22, 2000 Southwest EAA fly-in (Abilene, Texas)

Please check our web site for a more detailed and up-to-date Calendar of Events http://www.velocityaircraft.com



by Nancy Machado



Our move to Sebastian, FL, has been a lot of work but very rewarding. Mark and I have fit into the staff here like a pair of old shoes. Much, much more going on here than we had at Velocity West but, at the same time, we're still doing much the same: kit sales, builder support, attending fly-ins and research and development.

The intent of this new column will be to keep all you Velocity enthusiasts informed of our events and encourage your participation in them! Also we'll be welcoming new kit builders to the Velocity family.

Please refer to the "Calendar of Events" page included in this newsletter (p. 6) for upcoming events.

The EAA's SportAir workshop personnel asked us to supply them with some names and addresses of people that have expressed an interest in building a Velocity. Possibly you have received a notice from them about their upcoming workshop set for April 28, 29 and 30 in Griffin, GA. Two of our staff will be attending this workshop along with EAA staff. I have gotten very positive feedback from people that have attended these workshops - especially in the area of confidence building!

We canardly wait for the Third Annual Velocity West Coast Fly-In set for June 10 in Ramona, CA! Al Gietzen is heading up this fly-in along with several other Velocity builders in the immediate area. The local "EZ Squadron" group has planned their annual picnic and "weigh-in" the same day; this has the potential of being one fun canard event! Mark and I will be attending the fly-in and very possibly Duane and Bonnie Swing also. Al's got a good program of speakers during the day and we'll top it off with Marion Sparrow's renowned BBQ feast. And, if Saturday wasn't enough for you, there will be a tour of the local Velocity projects Sunday morning. Check the flier in this issue for the r.s.v.p. form and more details.

With regard to kit sales, as always the holiday/winter months tend to slow down a bit. We've made up for lost time in the first quarter of this new year. Please welcome our new "family" members:

Dick Affenit, Weaverville NC, XLRG Dave Bertram, McKinney TX, XLRG Steve Bisso, Lakeland FL, XLRG Roy Clemons, Raytown MO, SUVLW

Rob Cranston, London ONT, XLRG

Dave Doyle, Ardrossan AB, XLRG George Elsom, Buffalo WY, SUVLW Jeff Garland, Cartersville GA, XLRG Bill Hawley, Salt Lake City UT, XLRG

Mike Haynes, St George UT, XLRG Carlos Ibarra, Chubut Argentina, SUV

Scott Jones, Milwaukee WI, XLRG Andy Millin, Plainwell MI, XLFG Vaughn Pleasant, Centerville OH, SUVLW

S. Rangan, Brentwood CA, Velocity LW

Dave Rider, Hangerstown MD, XLRG

Chris Stevens, Tulsa OK, SUVLW

Phil Vaughan, Greensboro NC, XLFG

If any one of the above new builders is in your area, please welcome them!

Looking forward to seeing many of you once again at some of our scheduled events, and if we haven't had the pleasure of meeting yet, please introduce yourself to Mark and me!

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#### Meet Velocity's Top Canine Sales Agent!

Hot Ticket, "Otti" for short, is Mark and Nancy Machado's English Cocker Spaniel. "Otti has a way of drawing a crowd at the air shows", explains Nancy. "Otti charms the people in close to our demo planes, points out the features she likes the best in each model ("my daddy built this one"), then closes each sale with a dog biscuit. She also plans to challenge Darla (Lavoie's Springer) for the most time logged in a Velocity!





Third Annual Velocity West Coast Fly-In

#### Saturday, June 10, 2000 9am to 8pm

Ramona Airport (RNM), Ramona, California

Length 4000 x 150 feet, Unicom 122.7

(In conjunction with the EZ Squadron annual weigh-in & picnic)

#### Complimentary Coffee & Donuts in Morning - Guest Speakers Weigh Your Aircraft - Meet Velocity, Inc., Staff & other Canard Builders BBQ Tri-Tip & Chicken Dinner with Raffle (6 pm)

#### •• Sunday Morning: Tour Local Projects ••

Romona Valley Inn 800-648-4618 \$45+ mention Velocity Poway Country Inn 800-648-6320 \$50+ mention Velocity Motels Poway/ R. Bernardo Holiday Inn \$79+ 800-465-4329

Four Points Hotel Rancho Bernardo 858-485-9250 \$99+

For B&Bs in Julian, about a 20 minute drive from Ramona, call 760-765-1555

6 pm Dinner Cost: \$10/person \*\* Children 3 to 9 years - \$5/child

#### Please RSVP by June 1, 2000

e-mail: alventures@email.msn.com or nancym@velocityaircraft.com

Phone: 561-589-1860 or fax: 561-589-1893

Name:	
Phone: e-mail:	
Address:	
City, State, & Zip:	
Number in your party attending dinner: Adults Children	
Visa / Master Card Number:	Exp
Or make check payable to Velocity, Inc. and mail to: Velocity Aircraft, 200 W Airport Dr, Sebastian FL 32958	

### **CFI Notams**

by Brendan O'Riordan, CFII, A&P



## Required Checks

As Duane has mentioned before, we see airplanes from time to time fly in that have not had the required inspections performed or are missing placards that are needed for the aircraft to be legal. Just to remind everybody what is required on our airplanes to be legal I will list inspections and when they need to be performed and a list of placards that are commonly overlooked.

1. Logbook entry for Phase one flyoff. - The first thing we need to address with an experimental airplane is our phase one fly off period. When our phase one period is over we need to make sure the required log book entry is made so that we are legal to continue with phase two. 2. Condition Inspection - The next obvious inspection is our condition inspection.

This is to be performed every 12 calendar months by either the designated repairman or by an A&P Mechanic.

 3. ELT Batteries - ELT batteries must be changed when the transmitter is in use for more than one cumulative hour or when 50% of the batteries useful life has been exceeded.
 4. VOR check - If your airplane is IFR equipped, within the preceding 30 days the VOR equipment must be operationally checked in accordance with FAR 91.171. Remember you should also maintain a record in the airplane of this. I have always used a small spiral notepad. 5. Pitot Static Check - Again for IFR flight, your pitot/static system needs to be checked within the preceding 24 calendar months.

There are also some commonly missed placards that people overlook that you need in your airplane to be legal.

1. Data Plates. This one seems like a "No- Brainer" but believe me, people forget them and inspectors overlook them. If you refer to section 9 in AC20-27D the data plate needs to be fireproof. It also needs to be mounted on the outside of the airplane near the tail and visible to a person standing on the ground.(FAR 45.11) 2. EXPERIMENTAL - The word "Experimental" needs to be in a place where it is visible to all passengers getting into the airplane. Minimum of 2" high letters. If you have two doors sticking this on one door and not on the other doesn't work. You need to get it on both or somewhere in the cabin where it is visible from both doors.

3. Passenger Warning - THIS AIR-CRAFT IS AMATEUR-BUILT AND DOES NOT COMPLY WITH THE FEDERAL SAFETY REGULATIONS FOR STANDARD AIRCRAFT. This warning must be in full view of all passengers.

4. Compass card - This is the most common card missing from airplanes, Experimental or Certified. You need to have a compass deviation card in the airplane, displayed on or near the compass. 5. AROW - Airworthiness, Registration, Operating Limitations and Weight and Balance. Your Airworthiness certificate needs to be displayed in full view of all passengers. Not buried in your logbook. Operating Limitations refers to the Phase one, Phase two operating limitations that your DAR gave you when your airplane was signed off. Most pilots incorporate the Weight and Balance and their Pilot Operation Handbook into one using Velocity's POH filled in with their

own weight and balance data. If you do this remember to put your N-number on the cover of the book.

Remember that even though we are all flying experimental aircraft, we have to abide by the rules. Missing one of the above items could at the least ground the airplane if caught on an FAA ramp inspection. A pilot flying that airplane could also face suspensions of their license and, even though you pay your insurance, it could be null and void if your aircraft does not comply with these items. So check your airplane out and keep up with those inspections.

## Indicated Vs. True

I bet that if you round up a group of private pilots that have been flying for more than five years and had them retake a private pilot written the scores wouldn't be too good. I am not excluding myself from this observation. I know there are quite a few things that I used to know off the top of my head that I have to look up now. One of these basic things that the average pilot might forget is the difference between True Airspeed and Indicated Airspeed.

Indicated Airspeed is the airspeed we read off the face of our airspeed indicator when we are flying. Indicated Airspeed is an aerodynamic airspeed. This means that these are the speeds we use for flying the airplane i.e. stall speeds, gear up/ down speeds.

True Airspeed is the actual speed of the aircraft relative to undisturbed air. Using this speed we can figure out our actual ground speed by incorporating wind speed and direction. Air density and indicated air speed are the two determining factors of true airspeed. Temperature and Pressure altitude are the two factors that determine air density.

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# Safety Corner

Accident & Incident Reports, Maintenance & Service Difficulties

#### Service Notice Builder Modification

In Velocity Views # 21, Bill Mulrooney reported on many mods he has made to his Velocity during the building process. One mod that was made to the aileron torque tube shows a strap welded around the control stick to provide more support for the stick. I received a couple of calls pointing out the 75% loss of strength created by welding the 6061 aluminum we use for this torque tube and the high probability that the stress created would cause a failure at one or both welds. One builder said he couldn't sleep knowing there was someone out there flying a Velocity with this same modification. He ask me what would happen if the stress created by this weld were to cause the torque tube to brake? The obvious answer is that one would loose all aileron control, If it were the front weld, aileron and elevator control. One of those who

#### **CFI Notams**

Continued from previous page

Basically as we increase altitude or temperature our air becomes less dense. So as we increase in altitude our True Airspeed becomes greater than our Indicated Airspeed. Now everybody can pull out your E6-B's and we will do some examples. To be honest with you it took me 10 minutes to find out where I put my E6-B. If you do always carry this wonderful tool with you when you fly, you will see that on the cover it tells you how to figure out True Airspeed if you already have your Indicated Airspeed, Pressure Altitude and Temperature. (Pressure Altitude is the altitude your altimeter will read when you put 29.92 in the pressure window.)

called me also indicated he would call Bill and point this out to him. I talked to Tim England who was the first to make this mod on his flying Velocity and he said he had not even thought about the possible problem and would immediately ground his airplane until he could come up with an appropriate solution. It was suggested that the strap be placed on the steel control stick instead of the aluminum torque tube. I see no problem with this.

## Fatal Accident Report Ken Swertfeger

Last issue I reported on the accident that took the life of a Velocity builder and friend Ken Swertfeger. At the time there had been no conversation with the NTSB and the majority of reports we received turned out to be false. I spoke to the NTSB a couple of weeks ago and this is what I have been able to find out.

Unfortunately most of us do not use our E6-B's as much as we should so here are some easy guidelines to getting approximate true airspeed numbers. At a Pressure Altitude of 5000 ft your True Airspeed is approximately 8% higher than your Indicated Airspeed. At a Pressure Altitude of 10,000 ft your true airspeed is approximately 17% higher than your Indicated Airspeed. Another less accurate way to calculate True Airspeed is that true airspeed increases by approximately 2% every thousand feet.

I hope none of you fell asleep while reading this. I know this stuff is boring but we need to pick up some of the old books every now and then so we don't forget the basics. Although the information is not official and probably will not be for some time, I think you need to know some of the particulars as food for thought.

A little history is in order for you to understand what happened. I received a call from Ken a couple of years before he finished his airplane informing me he had purchased an engine from Moses Ezekiel who had previously crashed his Velocity into the roof of a home in south Florida after an engine failure just after takeoff. Moses had convinced Ken that the engine failure was a result of a crack in the fuel injector right angle adapter. This particular engine had a history of problems related to apparent fuel starvation and was involved in more than one emergency landing, always on an airport until the roof landing. The NTSB never made an engine teardown inspection because the injuries were considered minor. Ken knew full well the risk involved in using this engine.

I told Ken if it were me, I would have the engine inspected completely, including anything that had to do with the fuel system – just to be on the safe side. Ken said he would take my advice into consideration. Apparently, according to the engine log, nothing was ever done with the engine after he purchased it from Moses.

Due to Ken's death, the NTSB did do a complete engine inspection and reported to me that they found a fuel servo that had been worked on by someone and there was something in the fuel servo that could plug the fuel going to the spider valve. As it turned out, Ken had flown the airplane over 60 hours without so much as a sputter until it just quit while in the pattern for landing and there was just no place to go but the trees.

More than one person has said to me that Ken accepted the risks and had to pay the ultimate price for his action. That may be true but it isn't very comforting for his wife and family. Nor is it much comfort for me.

Duane

## Please check the Table of Contents for your Construction Manual

We had an incident where one of our customers received a wrong section in his manual. To be on the safe side, we decided to print the table of contents for each of the eight various manuals we maintain. Please check your own construction manual for accuracy. If you have a manual with a wrong section, please let us know so we can send you the correct one.

Scott

NOTE: We used a two column format in order to fit the table of contents so it would be readable. Unfortunately, that leaves only one column left per page for other features, like KPCs. Sorry to put the KPCs spread out on so many pages. This should be a one time occurence.

#### VELOCITY FG (NON-ELITE)

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5.	SGF-07 BULKHEADS
6.	GGF-09 SPEED BRAKE
7.	GGG-14 LOWER COWL
8.	GSF-11 CENTER SECTION SPAR
9.	GGF-12 LANDING GEAR
10.	SGG-15 FUSELAGE
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12.	GGF-19 CONTROL SYSTEMS
13.	GGG-21 ELECTRICAL/INSTRUMENTATION
14.	SSF-12 FUEL SYSTEM
15.	SGG-26 FUSELAGE COMPLETION
16.	GGF-28 WHEELS AND BRAKES
17.	GGG-29 ENGINE/PROPELLER
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#### Velocity RG

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1.	GGG-01 INTRODUCTION
2.	GSG-02 WINGS AND AILERONS
3.	GSG-04 WINGLET/RUDDER



Note: Check the date at the bottom of your page. If it matches the "Date of Change" shown in the KPC, your manual has already been corrected.

#### **KPC 120**

Affects all Elite and XL aircraft. Manual Section 15.2.5 Date of Change 3-28-00 Should read: 15.2.5 Forward of door Beams & Switch panel housing

The two side beams are mounted 5/8'' in front of the door lip using two plies BID. If you are going to run wires up to the center section, you should have a tube inserted in one of the side beams before it is installed. The center switch panel housing can be mounted with screws for easy removal to access wires. Install these before the engine is installed.

#### **KPC 121**

Affects all RG aircraft Manual Section 9.6.1 Date of Change 3-28-00 Third paragraph should read: Drill #21 hole in the swing arms 2-1/8" from the mounting hole and tap for 10-32 ball joint stud. You may glue or Loctite those studs into position.

#### **KPC 122**

Affects all planes with pre-molded canard bulkhead Manual Section 5.3.5 and MBH-01-Canard Bulkhead Date of Change 3-07-00 The plans mention trimming the flange to \_". If you leave the flange at least 1-1/4'' and bond it in with structural adhesive, you do not need to do the 2 BID glassing of the aft

Continued on next page

*Continued from previous page* 

side of the bulkhead. You still need to glass the forward side.

#### KPC 123

Affects all Elite RG aircraft (not XL) with pre-molded indentation in the fuselage for the nose gear doors. Manual Section 6.1.1 Date of Change 3-28-00 If you have the molded gear doors and the molded indentation in the fuselage, you can skip the first page and a half and start at "trim the lip to \_" or so all the way around. That means cutting the hole out and leaving this much lip inside of the indentation. Then trim the pre-molded door to fit the hole. You may then continue on with the installation of the hinges and so on.

#### KPC 124

Affects XL RG aircraft. Manual Section 9.4.2 Date of Change 3-28-00 Figure 9-21 shows a bulge in the socket. Because of the length of the upper section of gear in the XL, there is no bulge in the socket. The Connection of the linkage is above the slanted bulkhead not below it.

#### KPC 125

Affects all Velocity kits where customers have their plans but kit shipments are after March 8, 2000. Manual Section 11.2.4 Date of Change 3-28-00 Those who get their kit after March 8, 2000 will have their hinge reinforcement pockets already glassed into the fuselage top. Normally, this is done after the door has been cut out, but we have found it easier to do with the top fuselage turned upside down.

•••••

#### Service and general items.

1. The plans call for an AN 5-10A bolt to hold the brake master cylinder to the canard bulkhead box. We have shipped some kits out with AN5-11A bolts. It is easier to just use

Continued on next page

4.	GSG-06 CANARD/ELEVATOR
5.	SGR-08 BULKHEADS
6.	GGR-10 NOSE GEAR (insert Nose Gear tab)
7.	GGG-14 LOWER COWL
8.	GSR-40 CENTER SECTION SPAR
9.	SSR-13 MAIN GEAR (substitute Main Gear tab for Landing
Gear tab)	
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#### **VELOCITY FG ELITE (small wing)**

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9.	GGF-12 LANDING GEAR
10.	EGF-16 FUSELAGE
11.	EGG-18 DOORS AND WINDOWS
12.	GGF-19 CONTROL SYSTEMS
13.	GGG-21 ELECTRICAL/INSTRUMENTATION
14.	ESF-45 FUEL SYSTEM
15.	EGG-27 FUSELAGE COMPLETION
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Put the following supplements at front of manual if needed: Fast Build Wings Supplement (if fast build wings are ordered only) Fast Build Fuselage Supplement (if fast build fuselage is ordered only)

#### Velocity RG Elite (small wing)

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6.	GGR-10 NOSE GEAR (Add tab for this chapter)		
6a.	GGR-09A SPEED BRAKE		
7.	GGG-14 LOWER COWL		
8.	GSR-40 CENTER SECTION SPAR		
9.	ESR-43 MAIN GEAR (Substitute this tab for Landing Gear		
tab)			
10.	EGR-44 FUSELAGE		
11.	EGG-18 DOORS/WINDOWS		
12.	GGR-20 CONTROL SYSTEMS		
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18.	GGF-30 FAIRINGS
19.	EGG-32 INTERIOR

#### Service and General Items

Continued from previous page

a couple extra washers to make up the difference than to ship screws. If you happen to be ordering something else, we would be glad to include some bolts at no charge.

2. The reservoir on the hydraulic pump can be rotated in a few different positions. If you feel the fill point needs to be in a different location for your installation, you may move it.

3. When adding counterweights to the elevators on the XL or LW (Long Wing) versions to balance them, it would be better to add to the outboard end of the elevator. In the future, we may make a new molded counterweight that is just wider than the existing one to install at the outboard end. This would result in a wider pocket at the tip but that is about it. Adding to the inboard counterweights is okay but outboard is better.

4. We have recently made an upgrade to the existing fork for the large nose tire (5.00 X 5). The fork is just beefier than the old one. If you would like this fork, it is available for our builders only at our cost of \$50.00. You would still use your same axle, spacers, and shimmy dampener parts. This fork will be available for the Fixed Gear or Retractable. Since we are not stocking lots of forks you will have to give us time to get them to you. There is no trade in value on the old fork since we do not want to stock both types.

5. We have had at least one builder have a severe case of "Gear Creep". This airplane is a fixed gear and is kept outside on the asphalt ramp. This gear leg is painted dark blue, which really soaks up the heat. We were able to heat them up and bring them back to their original shape but that can't be done too many times. If you have a situation like this where you are keeping your plane outside, you may want to see if the FBO will

Continued on next page

#### Service and General Items

*Continued from previous page* 

allow you to paint the area around your parking spot white. Also, if your gear legs are a dark color, you may want to make white or reflective covers for them. Also, if you keep your retractable gear airplane outside, the tires will not hold up very well. The Condors are great tires but their resistance to ultraviolet radiation is not as good as some other tires. Covers would help with this as well.

## Newsletter... **Please Help!**

Publishing a newsletter with such a small subscriber base is quite a challenge. Keeping cost (and hours spent) down are important. Here are two things that you can do to help Velocity Views:

#### Renew on time!

When you renew late, you cause me all sorts of extra work, as I now need to process each late renewal by hand. There is now a \$5 late charge fee for renewals that come in after December 31

• Pay by check...Credit card option is only for international subscribers (to make currency exchange easy). The time it takes to process credit cards is very very inefficient and costly.

#### GGG-33 FINAL ASSEMBLY AND FINISHING GGG-34 FLIGHT TESTING GGG-35 APPENDICES

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6.	GGR-10 NOSE GEAR (add Nose Gear tab here)
6a.	GGR-09A SPEED BRAKE
7.	GGG-14 LOWER COWL
8.	G3R-41 CENTER SECTION SPAR
9.	E3R-51 MAIN GEAR (substitute Main Gear tab for Landing
Gear tab)	Ŭ
10.	EGR-44 FUSELAGE
11.	EGG-18 DOORS AND WINDOWS
12.	GGR-20 CONTROL SYSTEMS
13.	GGG-21 ELECTRICAL/INSTRUMENTATION
14.	E3R-48 FUEL SYSTEM
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#### Velocity XL FG

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- 6. **GGF-09 SPEED BRAKE** 7.
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    - **XLF-37 CENTER SECTION SPAR**

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### XL RG Manual Sections

Use "Nose Gear" and "Main Gear" tabs at chapters 6 and 9 respectively

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if fast build wings are ordered)

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## We need your input for this newsletter!

- Builder Forum Input
- First Flight Photos
- First Flight Stories
- Velocity Flying Adventures
- Velocity Fly-in Suggestions

Send your photos / stories to Rick Lavoie for the next newsletter!

### Be Safe!

Get a Factory Check Out prior to your first flight! Flight training is available from: Brendan O'Riordan, CFII Velocity Aircraft factory in Sebastian Florida · Scott Baker,CFII on the West Coast (Sierra Bravo), Sutter County Airport (052), Yuba City, California. Don't take a chance, get checked out prior to your first flight. Please note that you should be current in some other type of aircraft prior to your Velocity check out. The purpose of the "flight check" program is to transition you from flying other aircraft types (like a Cessna) to a canard pusher (Velocity).



#### **Factory Checkout**

From David Brown, Dallas Texas

After lots of work over several years my Standard RG is nearing completion. I recently did something which I found very valuable. I went to Sebastian and took their factory checkout course.

First a little background to give some perspective. I first soloed in a Piper Tomahawk almost 20 years ago. As is normal, I then moved up to larger and faster airplanes over the years with the Boeing 767 the largest I have flown. My current job is flying as Captain at American Airlines on the Fokker 100. Prior to my checkout I had only approximately 45 minutes flying canard airplanes.

It's been a good while since I've flown a Cessna 172. But if I was to hop in one today, I do believe that I could make a good landing right on the numbers. After all, a 172 is a 172 right? I wondered if I couldn't just do the same with my Velocity on its first flight. After all, my Velocity is just one of many airplanes with a 200 HP Lycoming on it. Just like a Piper Arrow, right? Wouldn't my experience be enough to allow me to fly my plane without a checkout? Well, I balked and went to find out the answer in Sebastian.

I met with Brendan O'Riordan on a nice, but cold, January morning. We spent some time in his office doing some ground school stuff. You know...v-speeds, flight characteristics, performance, etc. After that it was off to fly. Since my plane is a STD we chose the old, but trusty, N81VA to fly. You know that plane. That's the one that's had such a "colorful" history. It was at one time all

Builders Forum is full of tips, information and letters ("material") supplied to *Velocity Views* Newsletter from individuals that are Velocity builders (or want to be builders). It is provided as "**USE AT YOUR OWN RISK**" material. Neither Velocity Inc. (The Velocity Factory) nor *Velocity Views* Newsletter (Lavoie Graphics & Rick Lavoie) have endorsed this material, and disclaim any liability for the use of this material. Individuals who use this material for the operation, maintenance, or construction of their homebuilt aircraft do so at their own discretion and at their own risk. Any variance from the builders manual is high risk.

orange. Then it went swimming in the Atlantic during that deep stall testing years ago. Then it was pink. Then it faded. Then it got its current paint job, which has lent it a new name. "Multicolor".

We cranked up Multicolor and taxied to the runway. Brendan gave me the honors first. I did the takeoff and it went okay. We headed out to the coastline to do some airwork. When that was finished we went to do the real work - landings.

Brendan demonstrated one and then it was my turn. Okay I thought, "Here's my chance to see if I could have pulled this off by myself". Even with the advantage of watching Brendan do a landing just three minutes ago, mine was weird. I found myself really working hard to get this plane to do what I wanted especially during the last ten feet above the ground. I did manage to get it on the ground and we made the mid-field turn off that I guess is roughly 2700 feet down the runway. Whoa! I've never flown a plane that handled quite like that on landing. After doing lots of landings I did get more comfortable.

Another thing we did together was practicing first-flight procedures. He taught me how to properly test for any wing roll problems by doing a take-off and getting just a couple feet off the ground. We also discussed ways of testing for proper canard performance during hi-speed taxi testing. Brendan and I must have flown together for approximately 4 hours.

The answer was yes. Had I tried to fly my plane first without a checkout, I probably would have gotten my plane up and down again without serious incident. Note: I said probably. But the following would have been definite:

 It would not have been pretty.
 I would have taxied off the runway probably somewhat apprehensive to do it again right away.
 I would have exposed myself, and a great airplane project, to an unnecessary risk.

4. I would have checked my shorts before climbing out.

We all consider safety a paramount concern. That checkout course was the best investment in safety that I have put in my plane. Consider doing the same. After having taken the course I have confidence that I will be properly prepared for my first flight.

By the way, I have also discovered that having taken that course was the most important consideration in successfully obtaining in-motion insurance.

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#### Factory Notice Builders HOT LINE

Please remember that on weekends and after hours, we do not answer the 561-589-1860 phone number. Our unlisted builders hot line is 561-589-0309 and if we are here, this is the only number we will answer. We are working on an additional revolving number for this hot line to eliminate the busy signals you get on certain days.

Duane

## **Buy Sell or Trade**

Velocity parts, tools, kits, flying Velocitys: **Free** and exclusive to *Velocity Views* Subscribers.



Place **your ad** here... FREE to all current subscribers. Individuals selling parts, tools, kits, & flying Velocitys. Your ad will run once per submission. See last page for deadlines. Please do not type text in all caps!

## Three Blade wood Prop by Performance.

Total flight time 234 hours. Comes with prop extension, prop Bolts, prop extension Bolts, inner spinner and prop spinner with screws. This prop is in excellent condition. Price \$1800.00 Call Mel Hinson at 1-210-651-5086 or E-Mail dynamo9603@earthlink.net

#### Velocity Project for Sale

Velocity, standard model, fixed gear, 80% complete. Fuselage, wings, canard complete and painted. Upholstery done. Elevators, ailerons, rudders built and primed. Engine and flight instruments installed. Lycoming O-360 A1A engine mounted and mostly installed. Brand new fixed-pitch prop ready to install. Virtually everything needed to complete the aircraft except radios. Reasonably priced. Aircraft is located near La Crosse, WI.

Ronald McKelvey 1200 Selke Rd. La Crescent, MN 55947 (507) 895-8263 rdmckelvey@aol.com

#### For Sale Velocity FG Kit

50% Complete Phone 423-365-9613 Glenn Carver 1540 Marshill Rd, Spring City TN 37381

#### Velocity 173 RG-XL Kit For sale

About one-third to one-half completed. Excellent workmanship by my deceased husband, Bill. All parts except engine, prop and instruments. \$40,000.00 OBO Call Elaine Luedke in Arizona at 520-684-9137

#### For Sale: Velocity 173RG

85-90% complete, wings, canard, cowling, engine mount by Alan Shaw. Panel and interior complete. Modified for IO540 but 360 still an option. Strakes construction, bulkheads, and many joints vacuum bagged. Fuselage itself double vacuum bagged at factory. Plane had IO540 installed which I had to sell due to monetary reasons. Sale of plane for same reason. Aircraft now ready for further exterior sanding and finishing. Lower fuselage already primed. Panel includes Apollo SL40, SL60, and 360 moving map; Terra NAV, transponder, and Triv Nav C; RMI micro monitor and micro encoder; Striker finder, Navaid AP, Clarion FM/CD, Flightcom Digital clock, and Master Caution Voice warning system. Overhead panel also installed which includes light and cluster of engine switches. Panel by Martin Hadley. Interior grayblue and tan leather with matching material accent. Many extras. I have at least \$60,000 in it. Make me an offer. Ralph Robertson clrobrt@erols.com, 757-221-8246.

#### Zero Time Lycoming Engine For Sale:

Don George zero time Lycoming IO360C1C 200 hp engine, factory new cylinders, all accessories installed (fuel servo, vacuum pump, lightweight starter, etc.), 1 mag & 1 electronic ignition, all ready for a Velocity. I have \$24,000 invested, but will sell for \$21,999.

Reason for selling: I made a mistake and this configuration will not fit in my Velocity with the type prop I want to use (clearance to firewall). My mistake is your gain!

Contact Dr Scott Bowers e-mail: fpbowers@mindspring.com or call Home 252-237-2889 Work 252-243-3559

#### Save My Marriage Avionics For Sale: Terra Com & Audio Panel

Terra Com Radio TX-760D \$650
Terra Audio Panel TMA-340D
\$250 Have manuals, harness and cage. Recently bench checked at my local avionics shop and found in good working order.

Help save my marriage! My wife (Judy) thinks that I am crazy! Between the spare parts in my hangar and garage, Judy is certain that I own two Velocitys (1 flying and 1 in spare parts). She may be right, but the way I see it, a guy can never have too many tools or back up parts and stuff for his airplane. My Velocity is all Terra equipped. Recently I had the opportunity to purchase some additional Terra avionics from my local avionics shop. Thus I now own 4 Terra Com radios, (have two in my Velocity, keeping 1 as extra back up). All four coms work the same, so take your pick.

Contact Rick Lavoie, St Augustine FL days: 904-461-6912 or e-mail: lavoie@aug.com



Attack Systems By EM aviation You have built a modern aircraft, now install a modern instrument! Fly a safe, accurate approach speed regardless of weight. Prototype installed on factory "XL" in '97. For more information: www.riteangle.com or write EM aviation, 13411 N E Prairie Rd, Brush Prairie WA 98606 Custom **Instrument Panel** Design By Treasure Coast Avionics Specializing in Velocity Elite & XL Models 2974 Aviation Way, Ft. Pierce, FL 34946 PH: 561/464-3148 FAX: 561/464-3197 www.treasurecoastavionics.com FAA CRS# YHLR983K **NO ONE DOES CUSTOM** 

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Gulf Coast Avionics offers complete panel build-up and pre-wiring for Velocity builders. With our experience, knowledge, and technical expertise, we can work with you to deliver a built-up panel to your specifications, ready to install. Call us today for complete details on a custom panel for your Velocity. We are the experts!



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Experienced Velocity builders on staff, offering subassembly and builder assistance. Competitive labor rates. We also offer many minor modifications that enhance future maintenance and servicability. Call for our brochure and references.

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#### Marketplace Advertising Info

Commercial vendors wishing to place an ad in the Velocity Marketplace (includes ad on the internet web site) should contact Rick Lavoie by:

> E-mail: rick@lavoiegraphics.com fax: 904-461-3146 voice: 904-461-6912



Phone: 970-224-4404 Fax: 970-224-4404 or 603-806-1259 E-mail: franklin@ezlink.com www.ezlink.com/`franklin

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# We need your input for this newsletter!

- Builder Forum Input
- First Flight Photos
- First Flight Stories
- Velocity Flying Adventures
- Velocity Fly-in Suggestions
- Send your photos / stories to
- Rick Lavoie for the next newsletter!

## Employment Opportunity

Velocity Inc.

Our Service Center needs help. We are looking for a movitated individual with Velocity building experience to head up our Service Center. Duties will include working with new Velocity builders in the "Head Start" program, working with Velocity builders in the "Helping Hand" program, working on various Velocity R&D projects and other related programs. This is a salaried position with company benefits that include health insurance and a 401K plan. If interested, please contact Duane Swing at 561-589-1860 or e-mail to: DuaneS@velocityaircraft.com Fax Resume: 561-589-1893

Factory Information Velocity Inc. Factory & Home Office:



200 W Airport Rd Sebastian FL 32958 USA Ph: 561-589-1860 Builders Hot Line: 561-589-0309 Fax: 561-589-1893

#### **Builders HOT LINE**

Please remember that on weekends, and after hours, we do not answer the 561-589-1860 phone number. Our unlisted builders hot line is 561-589-0309 and if we are here, this is the only number we will answer.

#### Internet web site: http://www.velocityaircraft.com

#### E-mail address:

DuaneS@velocityaircraft.com ScottS@velocityaircraft.com MarkM@velocityaircraft.com BonnieS@velocityaircraft.com NancyM@velocityaircraft.com BrendanO@velocityaircraft.com DarenJ@velocityaircraft.com MikeS@velocityaircraft.com

- Builder assistance: Scott or Mark
- Sales Qs: Duane or Nancy
- Billing information: Bonnie
- Sales or scheduling of our Service Center: Nancy

• Schedule flight training: Brendan

• Order parts: Daren

• Conditional inspection or maintenance matters: Mike.

<b>Delivery Dates</b>			
Quarter:	Mailed by:		
1st	January 15th		
2nd	April 15th		
3rd	July 15th		
4th	October 15th		

Submission Deadlines		
Quarter:	Mail Date:	
1st	December 1st	
2nd	March 1st	
3rd	June 1st	
4th	September 1st	

Listed below are **4 options** for submitting your text. Do not type your text in all caps. Please send us **photos** and drawings too!

1) Send it on a **3-1/2" computer disk** (Mac or DOS). This saves us from retyping all that text. Don't format your text, just give us raw text, with no underlining, bold, or any other type of formats. We also can take Zip 100 disks.

2) **E-Mail** your text file to me: rick@lavoiegraphics.com and please don't type in all caps.

3) If you don't have access to a computer, then we can scan in your **typed** page.

4) If you **print neatly** so we can read it clearly, we'll type it on our computer for you!

Note: If you need your photos & materials returned, please include a self addressed envelop.

Velocity Views is published Quarterly by: Lavoie Graphics 26 Marshview Dr St. Augustine, FL 32084-5873 Rick Lavoie,Editor 904-461-3146 (fax) e-mail: rick@lavoiegraphics.com

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