



RVator's Log

Newsletter of the Twin Cities RV Builder's Group

June 2007

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Upcoming Events

June 30: Minnesota Wing June Meeting – Guests will be members of the FAA's Safety Team (FAAST). Plus a tour of Dave Maib's RV-10. Fleming Field. See page 8 for details...

August 16: Annual Minnesota WWII Veteran's Flight to Granite Falls. Any Twin Cities RV Club member who wants to participate, call or email Doug at 651-398-1184, dcw@mnwing.org.

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**Minnesota Wing
Van's Air Force**

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Shop Notes

-Doug

It would be an interesting study to ask each of our members how they got interested in building an RV. It might have been a magazine article, a cool photo in Sport Aviation, maybe a trip to Oshkosh to marvel at a sea of colorful RVs dominating the fly-in. After doing a little research, perhaps you discovered Van's website with all sorts of information... specifications, drawings, pictures. You began to get serious. Could I really do this? Where would I build it? Could I afford it? And then comes the BIG question? What will my wife say when I gather up the courage to say, "Honey, I've been thinking about building this airplane." Let's face it, this is such an all-consuming hobby that one's spouse has to be pretty much on board throughout. Sacrifices will have to be made in time, money, and attention. Every RV builder can relate to this I'm sure.



My story may be an exception to the rule since Jean has been flying with me since high school and knew from day one what she was getting into. I think I was 18 or so when I talked my dad into financing a 1948 Piper Vagabond (I really would pay him back. I promised!) Jean and I bopped around southern Michigan at 80 mph and she seemed to enjoy it (even on the windy days!!). I had twice gone to the big EAA fly-in at Rockford, Illinois (pre-Oshkosh days) and I was really getting fired up about homebuilts. One of guys at my local grass strip near Pontiac had built a beautiful Pitts. I could see myself someday hand-crafting some beautiful award-winning work of aeronautical art (of course, I had no particular skill set to back up these aspirations, but that didn't seem to matter at the time)

One day as I was driving around the hangars at the big paved airport in Pontiac, I drove past an open hangar with three Thorp T-18s and had to stop and check them out. I got to know these guys and even managed to wrangle a ride in one. Wow... this was no Vagabond!! All metal, fast, cool looking. I had to build one! All the usual questions: could I do it, where would I build it, where would I get the money. The practical answer was no to all the above, but common sense does not seem always seemed to prevail when you are a teenager.

Finally love won out over such wild and crazy dreams (at least for the time being). We were engaged, the Vagabond was sold, my dad was paid back and we embarked on a journey of mostly marital bliss. However the deal was that some of our wedding money went to the purchase of a set of T-18 plans and 3 sheets of raw aluminum. I actually started this project in the laundry room of our apartment building but quickly moved it to my dad's tool shed. Wow, I was young and stupid. There was still this issue of no money so I finally saw the light and sold the plans and the 2 untouched sheets of aluminum and put the homebuilding idea on hold for the next 20 years.

During the interim, however, Jean tolerated a steady stream of airplanes in one form or another. In fact, her toleration turned to a genuine interest in flying. I taught her to fly and she logged about 250 hours in a Citabria, Cessna 140, and another Vagabond. With the arrival of 2 boys, she got away from actively flying herself, but still was an enthused passenger. I

restored a Cessna 140 and then started an Aeronca Champ project. Our house in Dayton, Ohio soon was full of Champ parts. There were two wings in the family room propped up against the wall, ailerons under the beds, and 5-gallon cans of highly flammable butyrate dope in all the closets (I figured if we had a fire, it would have taken out the entire block).

After the Champ and a Cessna 180 project, I became enamored with the RV-4 kit, which became part of our household in 1991. The RV began a 12-year project that consumed most of my free time. Jean never really took part in the construction of the RV. She would hold a tool once in a while when I needed a third hand but mostly she would come down into the basement once in a while just to see where all the aluminum shavings were coming from. Always encouraging, but not an RV fanatic. She just quietly stood back and watched the slow (sometimes, very slow) progress.

Soon, 22DW will have been flying four years and I am coming up on 400 hours flight time. Jean has happily squeezed into the back on many trips to Milwaukee, Arizona, Wyoming, and Michigan. Sure a big airplane would be nice once in a while, but the -4 seems to meet our needs just fine at this stage of life. I do tell potential builders however, that the cost of building an RV is a little deceiving. Van has this cool page on their website which allows you to estimate the cost to build any of their airplanes. It looks pretty accurate but neglects the "RV builders-guilt-resolving-purchases" that really should be added to the bottom line. In my case, I had to tack on a kitchen and new car but sacrifices must be made at times. Thanks to all of our RV wives for their patience and their support. What would we do without 'em??



Our Not So Empty Nest

- Carolie Collins

Ever since our boys moved out to their own apartment, my husband has been calling our home "an empty nest", but it is far from EMPTY. You see a few years ago, my husband realized a long time ambition. He got his private pilot's license. The boys were in middle school and we all embraced this new "hobby" which included annual family treks to the Oshkosh "Airventure".

By the second trip, I should have recognized the spark in my husband's eyes as he spent more and more time talking to builders and looking at "kit planes". A fire had been lit and the rest is history. "I'm going to build an airplane." He stated as easily as one declaring, "hey, it looks like rain". I responded with the same enthusiasm, "uh-huh."

Before I knew it a kit had been ordered. I believe it was a Glastar. I began to take notice. But the kits were back ordered and the day after Bob sent his first money order to Glastar, they filed for bankruptcy. I was secretly relieved that the project was indefinitely delayed. Bob was relieved when he got his money back. He went back to researching kit planes.

Before I knew it an RV7A tail kit arrived. I began to reason

with myself. At least I'll know where he is. This is much more interesting than golf. But underneath all that was, but I don't want to fly in a small airplane. I'm not afraid of flying, I'm afraid of motion sickness, the smaller the plane the bigger the chance of having that experience. Bob was envisioning a happy retirement of flying here and there together and I was planning my road trips to pick him up at the airport so we would have a car when we got there. There isn't a bridge to Bermuda.



Carolie logs some stick time in Bob's -7A

If black boxes survive air crashes — why don't they make the whole plane out of that stuff? — George Carlin

The tail is on the wall of our garage. Soon after its completion the wings arrived. They are in the family room. The fuselage is in the space where Bob used to park his car. My car still fits. When my second son moved out, I declared quite loudly that his room would become my office. Soon after, the Plexiglas arrived and is currently taking up residence in "my office".

Dreams give people a reason to get out of bed everyday and I am incredibly happy that my husband has the opportunity to be living his. He gets to touch it, add to it, and embrace it everyday and I have fewer rooms to clean (not that cleaning is my strong suit). But this nest is far from empty. It is nesting a bird that is nearing its need to also leave for a nest of its own. I will miss it, but am also looking forward to the day that it spreads its wings and flies. Just like my boys have done. And I will be on the ground waving.

*Carolie's husband is our own Bob Collins who is a journalist for Minnesota Public Radio, edits the **RV Builder's Hotline** and in his "spare" time, is building an RV-7A*

An RV "Wives' Tale"

-Mary Halama

When I met my husband, twenty-six years ago, he had never even been in an airplane. So to introduce him to one of life's great adventures, I presented him with a Discovery Flight at Gibson Aviation in Eau Claire. Little did I know what a life-changing gift that would be. He got hooked, and soon we were hauling milk on weekends and holidays so he could save enough money to take flying lessons. He completed the ground school, but lessons were expensive and it seemed like the money was always needed elsewhere. We bought land, built a house, took over a family business, and life was good. Occasionally Patrick would mention his desire to fly, and I would pass it off with my usual negativity. Yes, flying was fun once in awhile, but, owning a plane? Come on.

Then five years ago, my husband announced to me that he was taking flying lessons and building a plane - and that was that. Although he led me to believe it wasn't up for discussion, "discuss" we did. He would present all his arguments for, and I would scream and cry all my reasons against. When the battle was over, I had lost. For weeks, I would get ill thinking about the expense, the time consumption, the danger - no, the DANGER! Who the hell is crazy enough to fly in a plane built in your garage, for God's sake? But, before I knew it, I found myself hauling mud out for the foundation in the new hangar, nailing shingles in 100 degree heat, and hanging precariously from scaffolding fourteen feet in the air while screwing steel sheeting on the ceiling.

Soon after, the RV-9A kit was on order and the first box arrived. Patrick took the parts out, and then I knew that I had married a complete lunatic. This was going to be an airplane? This jumble of a seeming million little pieces? But I soon was bucking rivets - totally apprehensive at every one, for what if I slipped off and made a dent? His patience was endless - because he knew, if he lost it, he'd lose my help.

More boxes arrived, a huge array of tools was purchased, and I began to notice that as the plane grew, so did my husband. He became a better version of himself. He soaked up all the knowledge he could from his flying lessons and started talking in this gibberish of VFR, VOR, METARs, CTAFs, ILS, etc. I felt like I'd married a doctor. He went on to attain his instrument rating, attended all sorts of seminars and hands-on workshops and talked to hundreds of people, gleaned advice on building and aviating. He gained self-confidence and he blew my mind with how smart he was. I knew I didn't marry any dummy, but this was unreal! He was a genius! He designed and made parts and problem-solved a thousand times on that



Pat and Mary and their RV-9A

plane, and was so meticulous that I couldn't help but get caught up in it all.

I also noticed that as the plane pieces came together, so did Patrick and I. At the beginning, I was totally against this project, but as things progressed, I realized I could either keep fighting this reality and make us both miserable, or I could stand beside him and be what he really needed - a friend and a helper. So I have bucked, sanded, counseled and supported. I designed the paint scheme and coordinated the interior, and was awestruck the day the wheels first left the runway. I continue to be amazed at what my husband has accomplished.

My life has changed (as I knew it would) but it's not all bad like I thought it would be. We have met a lot of really nice

If we love to fly so much, how come we're always in such a hurry to get there?— Louie Manyak

people and have made many great new friends. The world has become smaller, and I have eaten many \$100-dollar hamburgers! Yes, I have made sacrifices, but they have made me a less-selfish person. When Patrick went through a fiasco with his first engine, he was going to sell his project and give up building. Although I had a chance to have my old life back, I talked him out of it. I told him he'd come this far and he had to see it through. I guess I saw how much he loved flying and

I realized just how much I truly loved him. Believe me when I say I'm no hero, but I think this plane-building project has brought out the best in both of us. At least that's what this experience has done for me. It has made me extremely supportive of Patrick's dream, and I am so proud of him for achieving it. I'm not saying I'm never without doubts or fears, but those come with living.

Being the wife of an RV'er has been interesting and life invasive. As proof, three years ago we got a golden retriever puppy. Guess what Patrick named him - what else? "Arvee."

Larry Mill's First Flight

-Doug

In the March *RVator's Log*, we had left Larry Mills with a full clipboard of squawks and this dazed look in his eyes after Tom Berge's "pre-inspection." We are happy to report that all the loose ends finally came together and Larry's beautiful RV-6 took to the skies on May 2, 2007.

Yours truly was the test pilot so allow me to relate how the first flight turned out and discuss some of the factors to consider in getting your airplane ready for its very first flight.

Preparation, preparation, and preparation - Last time we discussed the preliminary inspection by a committee of one's peers. This should be accomplished several months prior to your intended first flight. The objective is to make the first rough cut on preparation for the FAA inspection. Larry worked his way down the list and once he had covered all the glitches, he had Tom come back for a second look. You cannot have too many eyeballs checking out your handiwork!!! If I recall, I had Tom, Paul Irlbeck, and Alex Peterson inspect my RV-4 and all of them found something the others did not. I also used two different inspection checklists (these can be found on the Internet and also a good one is included in your info packet that you receive from the FAA).

Insurance - Might be a good idea to secure your final insurance coverage. I highly recommend Scott Smith of Skysmith Insurance Agency in Ankeny, IA (800-743-1439). He is very knowledgeable of RV coverage and can advise you on specific experience and training requirements.

Training - Which brings up the issue of recency of experi-

ence. Larry is a fairly experienced pilot with an instrument and CFI ratings but he was lacking in recent tail dragger time. Thus he decided to have an experienced RV pilot make the first flight and do some of the initial test work. Larry and I are working in another RV-6 to meet his insurance requirements and get him safe and proficient. Sometimes this is a hard call but often the new RV builder has spent the last few years toiling away in the shop and has not maintained currency, especially in an aircraft like the RV. There are several good training sources available so PLEASE, PLEASE, PLEASE take advantage of any one of them. Your insurance carrier will probably require a specific number of hours anyway (I have seen numbers of 5 hours of dual for a tri-gear up to 10 hours of dual for a taildragger).

AC 90-89A - When you think you are about six months from making that first flight, get your hands on a copy of FAA AC 90-89A "Amateur-Built Aircraft Flight Testing Handbook." This is included in the packet of paperwork that you will receive from the FAA. This book should become your Bible through your flight test period. I have a well-worn copy that I used in preparing my RV-4. I started from the beginning and just checked off each paragraph. This booklet was a joint effort of the FAA and EAA and I have yet to find a better guide in preparing both you and your aircraft for your first flight.



Engine run-up and taxi tests - Here the operative word is caution. First of all, follow your engine manufacturer or re-builder's recommendations for your initial engine runs. You will find that they will recommend that your ground runs should be kept to an absolute minimum. Bart Lelonde at Aerosport advised no more than a 3 minute run at any given time and then only enough ground running to look for fluid leaks and general operation (mags, fuel pressure, c/s prop functionality, etc). Your engine is new it will get HOT very fast and the only way too effectively cool it is fly it. A taxi test should consist of seeing if it will track straight and the brakes work. That can be done in a trip down the hangar line and back. Next time out should be the first flight.

So how did it go with Larry's -6? Alex Peterson, Jim Lenzmeier and I met Larry on the appointed day. The weather was perfect with clear skies and little wind. I spent a good hour, slowly giving his airplane a very complete preflight inspection. We were flying out of Anoka County, which has a tower and thus provides a good safety factor for a first flight. The airport has lots of room and an array of long, wide runways.

I used a basic flight test plan that outlines a rather simple first

Keep the aeroplane in such an attitude that the air pressure is always directly in the pilot's face.— Horatio C. Barber, 1916

flight: 30 minutes or so basically to see that the engine runs effectively and safely and the airplane is essentially flying like an RV should. (By the way, use a series of flight test plans that outline exactly what is to be accomplished in each flight. There are many fine examples available on the Internet).

Alex would fly chase in his RV-6. His purpose is just to keep track of me and provide some comparative airspeed data. Following my preflight checklist, I cranked up and taxied quickly to runway 09. Larry's -6 taxied perfectly straight and showed excellent ground handling characteristics. I met Alex at the run-up area and I ran through the pre-takeoff checks. Again I didn't want to linger too long as the CHT's were climbing rapidly. Rolling into position, I re-check these final items: controls free and clear, fuel on proper tank, fuel pressure OK, trim set, and canopy locked.

Adding power I checked immediately that the RPM was stable somewhere around 2700 rpm and I had around 27 inches of manifold pressure. The tail came up about where I would have expected and it felt good to go. At ANE, I had 5000 feet of runway ahead so there is plenty of space to abort if necessary. The -6 leaped off the ground and it felt fine except for a slightly heavy left wing. Once airborne we are in a gray area where the only recourse is to land straight ahead if engine problems develop. I started a gradual left turn and climbed to 2500 over the airport. The tower knew of our plans, so for the next 15 minutes I flew left circles around the airport at 25" and 2500 rpm. The plans is to keep the power up all the time as this is a new engine and requires nearly full power to expedite the break in process.

I advised the tower that we would head north towards our test area and Alex and I joined up briefly to compare airspeed indications. They were within 2 or 3 knots so that was good. Larry was flying with Alex and he snapped a couple pictures of 7 years of work now zipping through the air at 150 knots. I was now around 3500 feet and the last item on the test plan was one power off stall to determine an approximate stall speed and thus a final approach speed. I slowed quickly extended the flaps and the airplane stalled around 55 knots IAS. No wing drops so Larry had built two straight wings. Multiply by 1.3 and 70 knots for a final approach speed will be close enough.

I headed back to ANE with Alex behind me. As I entered the left base for 09, I extended the flaps and held a little power down final with the speed around that 70-knot figure. There is gobs of runway so the speed hardly needs to be that close. A couple plops and a little dancing on the runway and we are down (hmm... must have been that windshear in the gusty 3

knot wind). A quick taxi back to the hangar and I shut down.

There are a few bugs to work out. We'll need to tweak the aileron trim at some point in time. A couple readouts on the Rocky Mountain engine instrument box were inop. No GPS and no encoder but no big showstoppers. As I write, I now have flown Larry's RV 5.8 hours and he is working through the write-ups. We'll keep working on his dual instruction in the other RV-6 and soon he'll be able to continue his testing by himself.



Doug and Larry – mission accomplished

How Major is your Change?

-Cliff Peterson

On Sept 9, 1999, the FAA issued Order 8130.2D which allows the builder of Experimental Amateur built aircraft to make "major changes" to their aircraft without first obtaining FAA approval. However, to qualify for this exemption (unless your aircraft has been certified and your repairman certificate received within the last two years) you must have the FAA recertify your aircraft by submitting another form 8130-6.

In review, FAA "Operating Limits" issued on initial certification require notification and approval by the F.A.A. and "their response received in writing prior to flying the aircraft" for any "major change" as defined in FAR 21.93. This FAR actually defines "minor changes"; all other changes are "major".

Sport Aviation in the July issue (2004 I believe) quoted 21.93 -- "one that has no appreciable effect on the weight, balance, structural strength, reliability, operational characteristics or

*When a prang seems inevitable, endeavor to strike the softest, cheapest object in the vicinity, as slowly and gently as possible.
— advice given to RAF pilots during W.W.II.*

other characteristics affecting the airworthiness of the product.

All other changes are major changes". Note the terminology "appreciable and characteristics" -- only a NTSB judge or possibly your insurance carrier could interpret or define them. Does it apply to identical prop changes, electronic ignition, or Trutrak autopilots? And what does re-certification entail? Lots of room for interpretation. Maybe "Only the shadow knows".

ED note: I found some additional information on this topic in an article by Earl Lawrence in the 12/99 issue of "Sport Aviation" which expands upon this subject (excerpt).

“...Major Changes

One of the new operating limitations that has received the most interest since its announcement deals with major changes. What is a major change? FAR 21.93, "Classification of changes in type design," doesn't specifically define a major change. It says: "A 'minor change' is one that has no appreciable effect on the weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the airworthiness of the product. All other changes are 'major changes.'"

In other words, anything that has an appreciable effect on the weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the airworthiness of the product is a major change.

What's an appreciable change? There's no black and white answer to this one, but common-sense analysis of changes works well. For example, swapping a wood prop for a metal one would change the CG because one is heavier than the other. That's a major change.

Another good reference is Appendix A of FAR Part 43, "Major Alterations, Major Repairs, and Preventive Maintenance." It lists items that are "major alterations" on production aircraft, but these items would be major changes on a homebuilt. They include items such as alterations to the wings, tail surfaces, fuselage, engine mount, control system, landing gear, spars, ribs, fitting, shock absorbers, bracing, fairings, balance weights, changes to the fuel or oil system, a different engine or new engine accessories like a turbo, propeller changes, and anything that changes the aircraft's empty weight or empty balance that results in an increase in the maximum weight or center of gravity limits of the aircraft.

Before the FAA issued the new Order, owners who made a major change to their already certificated homebuilt had to get a letter from an FAA inspector approving it. In some cases, the

inspector had to re-inspect their aircraft after every major change as defined in FAR 21.93. What made this burdensome is that many builders didn't document their changes, nor did they call the FAA for the required review of the change.

After reviewing the issue with EAA, the FAA decided that documenting the major change in the aircraft's logbook-and flying the proper flight tests in a safe area-were the primary keys to safety. This decision resulted in the new "major change" operating limitation, which applies only to homebuilts certificated under the new Order. It says:

"After incorporating a major change as described in [FAR] 21.93, the aircraft owner is required to re-establish compliance with [FAR] 91.319(b). All operations will be conducted day VFR in a sparsely populated area. The aircraft must remain in flight test for a minimum of 5 hours. Persons non-essential to the flight shall not be carried. The aircraft owner shall make a detailed logbook entry describing the change prior to the test flight. Following satisfactory completion of the required number of flight hours in the flight test area, the pilot shall certify in the records that the aircraft has been shown to comply with [FAR] 91.319(b). Compliance with [FAR] 91.319(b) shall be recorded in the aircraft records with the following or a similarly worded statement: I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds VSO, VX, and VY, and the weight, and CG location at which they were obtained." [Specific numbers must follow the V-speed, weight, and CG.]

This new operating limitation significantly reduces the bureaucracy and has the potential to increase safety by ensuring proper logging and testing of modified homebuilts. Also, it's hope that article such as this one will increase builder awareness about the need and requirement to test fly their aircraft properly after making a major change. It's even more important to remember that the 5 hours is the minimum test flight period. Depending on the change you make, it can take much more than five hours to re-verify the safety and controllability of your aircraft..."

An Errant Trim Tab

- Noah Rosenbloom

I would like to relate details of an event that I observed on May 2nd of this year. I was flying back to the New Ulm, Minnesota airport and heard an apparent itinerant aircraft call in and report he was flying nearby on a westbound course. Not

If the engine stops for any reason, you are due to tumble, and that's all there is to it! — Clyde Cessna, founder of Cessna aircraft.

long afterward, he called in distress and announced he intended to make an emergency landing at New Ulm. To stay clear of him and/or the runway he intended to use, I quickly landed on runway 17 and cleared the active as soon as possible. As I parked, I could see the visitor landing on runway 04 and then taxi to the apron where I had stopped. At first glance, the airplane appeared to be an RV but closer inspection revealed that it was a Mustang II.



The Mustang has two elevator trim tabs on both the left and right elevator similar to the left side arrangement on our RVs. It appeared that the

emergency landing was required because the right ride trim tab has disconnected from the actuator and had begun to flutter and vibrate.

None of the local repair staff was on hand, but I had some materials in my hangar that the pilot might use for a temporary "quick fix." We found a small piece of aluminum scrap with a bend of about $\frac{1}{4}$ " radius. It was applied to the trim tab and elevator with duct tape to stabilize the tab. After a brief test flight, the pilot and his passenger took off for the return flight to Flying Cloud airport in Minneapolis.

This problem seems to me to be unlikely in our RVs. First of all, only one side of the elevator has a trim tab activated by a multi-strand cable. This cable is highly unlikely to break and any wear would certainly be observed during a preflight inspection or annual inspection. Also the counterweights at the elevator tips are designed to prevent a possible flutter situation. In any case, it seems to me that we should all be aware of the fact that something like this failure could occur and to carefully inspect the trim tab and its cable and/or actuator.

Bobbin' and weavin' in your RV

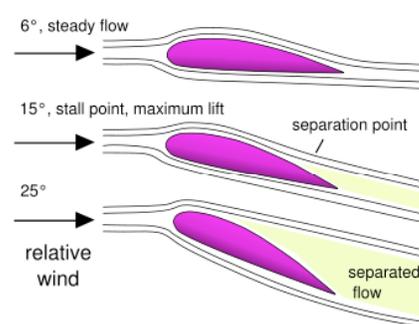
-Doug

You've just pulled up to the gas pump in Outer Podunk, North Dakota and as the line boy tops off your tanks, one of the locals wanders out to check out the new arrival. "So what is this?" he asks scrutinizing your impeccable rivet job. "It's an RV", you reply, knowing what's coming next. "How fast she go?" he asks as he squints against your dazzling polyurethane finish. "Well about 190 mph." Now comes the clincher: "So how's she stall?" his voice lowering a bit. "Well, like an RV... kinda quick.. but not that bad... just different."

Eons ago, I spent 5 years in the back seat of Citabrias teaching

mostly private students. And lots of hours hanging on the prop shouting the fine points of stall recoveries (no intercoms and no headsets... can't believe I can still talk and hear). Some students loved 'em, others were terrified

RVs do stall different than your average FAA-certified spam can. The RV wing is a straight and simple airfoil with no twists to induce a lot of aerodynamic warning. In transition training, I



like to have the new RV student very slowly work into minimum controllable flight. We just nibble at the stall and try and "feel" just when the stall will break. Typically the new RV pilot is surprised when the stall abruptly occurs with little aerodynamic warning. They are equally amazed at just a slight reduction in aft stick and we are flying again. If the RV has been built straight, both wings should stall together. If not, you might get a very quick wing drop. One exercise I have them do is a partial power stall concentrating on keeping the ball *perfectly* centered. No wing drop!! Hold just a tiny pinch of right rudder... right wing drop. Hold a tad of left rudder... big time left wing drop. Yaw causes a slight variation in angle of attack left or right and the resultant uncoordinated stall is very pronounced in the RV.

But stall characteristics change with changing CG. Here I caution folks that what you experience with a normal CG location may be *quite* different with an aft-loaded RV. Indeed, the tandem airplanes can get downright squirrely in the stall with a big bubba in the rear seat. They also handle very differently in approach and landing with an aft CG. And the side-by-sides will also show a pronounced increase in pitch sensitivity with two folks and lots of baggage. Know your airplane and its CG limitations and be familiar with its handling and stall characteristics under a variety of loading conditions. I have a very specific weight limit for my rear seat passenger in my RV-4 (210 pounds). Sometimes I have asked a couple uncomfortable questions of my potential passengers to be sure they are under the limit. One of my good friends was on a diet to drop 20 pounds so I gave him the incentive that when he reached his goal of 210 pounds (and my passenger limit), I'd give him a ride in the RV. I can't think of a better reason to eat lettuce and run 5 miles a day!! And he did!! We celebrated with his first RV ride. Better than Weight-Watchers!

Chicks dig us, and guys think we're cool.— Tom Krizek, airline captain.

Minnesota Wing – Van's Air Force
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First Class

Minnesota Wing - June Meeting FAAST Safety Team

**Sat. June 30, 2006, 10:00 am
Fleming Field Terminal Building Classroom – Fleming Field (KSGS)
South St. Paul, MN**



Our guests for our June meeting will be members of the FAA's Safety Team from the Flight Standards District Office at MSP. Program Manager Gary Pendleton will discuss the FAA's new program and how it can help you to become a safer RV pilot (yes, someday you will be flying again!). Also RV-10 builder Dave Maib has invited us for a tour of his RV-10 project, which is located on Fleming Field.

As always there will be time for your construction questions and the usual coffee and donuts in the morning plus pop and snacks at Dave's hangar after the meeting.

See you then!!!!!!

PS...Plus we still have a few MN Wing hats for sale so here is your last chance!! \$15 and just in time for the flying season

Driving directions:

From I-494 (east or westbound) in South St. Paul, exit at Concord Ave (exit 64B) and go south on Concord approximately $\frac{3}{4}$ of a mile. Turn right on E. Poplar and go up the hill. Turn left on Henry Ave and drive south into the airport parking lot. The terminal building is right in front. Classroom is on your right as you enter. Questions? Call Doug's cell at 651-398-1184. And....

FLYINS ARE WELCOME. PARK ON THE RAMP IN FRONT OF THE TERMINAL.