

Winds Aloft



P.O. Box 1206 Barrington, IL 60010
March 2002

**Was Our Annual Banquet a Success??
YOU BET IT WAS!!!**



Ron's MC skills were honed to perfection on this night, and Ted Kostin's archive of aviation photos thrilled us all. Notice the big smiles on the members' faces. Everyone had a great time.



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From Ron.....



photographer.

In a very short time we will begin Young Eagle flights and, also, we have some trips planned. We begin with the fly-out/drive-out to Delta Hawk just north of the border in Racine on April 27th. Then follow that one with a trip to Lake Lawn Lodge on the 5th of May...And then...plan to help out up in Oshkosh over the work weekend beginning on the 31 of May. Since the upcoming Family Balloon Fest will take place over that same weekend we have been asked to turn out in mass if possible to help out at that first ever event. We will be assisting Judy Rice as we did in past years, doing our regular aircraft clean-up jobs and helping Dick Nocenti with the Balloon Fest. I will talk more about the weekend at the meeting.

Please give me feedback on our new meeting location. I am only getting second hand reports in regards to likes and dislikes. I would sure appreciate your input via e-mail or phone call on this matter. If I don't get feedback, I don't know your thoughts.

Glen Gordon had Steve Flattum do the first test hops in his new RV-6 last month and all went perfect. Now they are waiting for the next good weather day so they can get together to do it again. I did a T/C visit to Phil Bohn to check on his Murphy Super Rebel and all is going well. Phil has a Russian 9-cylinder radial for the plane, which will give him 350hp and great performance. The plane is going together at Schaumburg Regional Airport. Also, I ran the scales out to J.B. Lee's place and did a T/C check on his beautiful RV-4, which looks to be flying this year. We are a building chapter for sure.

OK, what did I forget now? Let me know at the meeting on the 26th.

Until then, fly safe....**Ron**

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Chapter 790

Calendar of Events for 2002

March 9 Annual Banquet
April 27.....Fly/ Drive Out – Racine
May 5..... Fly-out to Lake Lawn
May 18.....Young Eagle Rally - LITH
May 25...Sr. Eagles Rally – Kresmery's Strip
May 31 - June 2 Oshkosh work weekend
June 22 Young Eagle Rally – LITH
July 13 Fly-out, Rantoul Museum
July 23 thru 29..... AirVenture 2002
Aug 10..... Young Eagle Rally – C77
Aug 10..... Picnic – Poplar Grove Airport
Sep 7 Bill Rose's - Chapter Picnic
Sep 14 Young Eagle Rally – LITH
Oct 5..... Young Eagle Rally – LITH

Contact John Vlasic for changes, details, or questions – Home Phone 847-524-1857
Email – jvlasic@lunt.com

Don't Miss It!! Fly-out/Drive-out to Racine Wisconsin Airport

By: John Vlasic

On Saturday April 27th we are planning a visit to the DeltaHawk Diesel Engines research and test facility at the Racine, WI. airport. The DeltaHawk Diesel Engines represent the first completely new power plant available for light aircraft in many years. It is a 2-cycle turbo-charged V-4 with many new construction and casting features. We should see the engine run on a test stand and in an aircraft. You can learn more about it by looking up:

www.deltahawkengines.com

Ole's Safety Corner

Calibrating your airspeed indications.

By: Ole Sindberg

First a quick review. Indicated airspeed (IAS) is what you read on the actual instrument in your panel. It can be calibrated in knots or miles per hour. If you correct this reading for instrument and installation (pitot static system) errors, you have Calibrated airspeed (CAS). If you furthermore correct for pressure altitude and air temperature effects, you finally have True airspeed. (TAS). This last correction can easily be made with an E6B or it's electronic equivalent. The trick is to figure out what the first correction is - the corrections for instrument and installation errors, and if excessive how to minimize them. And be assured -. Many airplanes Have significant IAS to CAS errors.

I have found very little written about this subject, so I had to come up with a common sense method of dealing with it for my own airplane. At first I assumed that the errors were minimal; I had the airspeed indicating system checked on the ground before first flight, so I knew the instrument errors were very small. Furthermore, I assumed that because I had put the pitot tube way out front, that no significant pitot system errors would be present. I located the static ports on large flat surfaces on the side of the fuselage, well ahead of the wing. I assumed this to be a good place. It did not turn out this way. The first several flights made me think that this was a faster airplane than I had anticipated. It did not take long to realize that the indications were a bit. (Read a lot) optimistic.

First I flew formation with another airplane, and it was obvious that at the limited points checked, that I was over by about 7% to 10% Way too much. Now was it the pitot system putting too much pressure into the indicator or was it the static ports operating in a area of lower pressure? I could not believe the former could be the reason, so I concentrated on the static system. Low speed and high speed passes at about 20' over the runway at 3CK showed different altimeter readings - about 40' higher for the high. Speed pass. It had to be a static port problem.

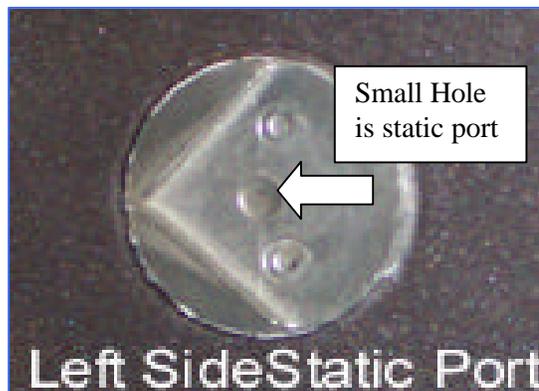
Next was careful GPS speed data collection. First I flew a large rectangular pattern and averaged the GPS ground speed (GS) indications. Later I flew directly into the wind (same heading and GPS track) and then reversed course, averaging the ground speed indications. This method is certainly faster, but

requires care in setting the DG (Directional Gyro) and verifying the same heading and GPS track which should be less than say 3° in both directions.

The average GS was assumed to be the same as TAS, which could now, with the use of an E6B, be converted to CAS for the pressure altitude (PA - set 29.92 on the altimeter) and temperature. The difference between the CAS result and the IAS reading is the airspeed error. Find these differences for a variety of airspeeds from as high as you can get in level flight to just above stall in the landing configuration. Note that the GPS speeds are usually in knots, so the IAS readings will also have to be in knots or converted to knots. If the differences are relatively small (less than 2%) make a chart or a table. Make allowances for this error on your longer cross-country trips and for comparison with other airplanes, or with the manufacturer's data.

If they are more than about 2% at any airspeed, first make sure that you don't have any leaks in the system. FAR 91.411 or 91.413, Test Certification, should verify this. If you have static ports not co-located with the pitot tube, try to find a better place for these ports; look for relatively large vertical surfaces away from wings or the horizontal tail. Note that if you open up lines in the static system, the above certification has to be redone.

I did not want to go that route, so I tried, with some success, to modify the static ports to minimize the errors. I had noticed Jet Ranger helicopters having small fences set in an aft pointing "arrow"



configuration just behind the static ports. So I made up small plates with 90° "arrow" fences and taped them in place over the ports. Of course, there was a small hole right over the actual drilled port. I taped these plates in place and flew the airplane. It worked beyond **(Continued on Page 5)**

(Safety Corner Continued)

my wildest expectations - 140 knots CAS showed exactly 140 knots IAS. Once I made permanent plates and riveted them to the face of the ports, it was not quite that good, but after a number of small adjustments and test flights, I have the error close to zero at high speeds, but unfortunately reading high by 4 knots at typical stall speeds. Higher fences reduces the IAS readings and lower fences the opposite. Presently, I have my fences at 0.078" high. I don't know what I can do about this remaining error other than make a chart or table.

It is quite satisfying to know that your airspeed readings are accurate and can readily be converted to TAS.

Keep the green side up **Ole**

TEN DOLLARS IS TEN DOLLARS!

Borrowed from "Flypaper," Newsletter of EAA Chapter 377 in Garden City Kansas

Fred and his wife, Edna went to the state fair every year. Every year Fred would say, "Edna, I'd like to ride in that there airplane." And every year Edna would say, "I know Fred, but that airplane ride costs ten dollars, and ten dollars is ten dollars."

One year Fred and Edna went to the fair and Fred said, "Edna, I'm 71 years old. If I don't ride that airplane this year I may never get another chance."

Edna replied, "Fred that there airplane ride costs ten dollars, and ten dollars is ten dollars."

The pilot overheard them and said, "Folks, I'll make you a deal. I'll take you both up for a ride. If you can stay quiet for the entire ride and not say one word, I won't charge you, but if you say one word, it's ten dollars.

Fred and Edna agreed and up they go. The pilot does all kinds of twists and turns, rolls and dives, but not a word is heard. He does all his tricks over again, but still not a word.

They land and the pilot turns to Fred, "By golly, I did everything I could think of to get you to yell out, but you didn't."

Fred replied, "Well, I was gonna say something when Edna fell out, but ten dollars is ten dollars."

Spring Is On The Way!!! Are You Ready?

Submitted By: Ken Kresmery

By: Alen Able, chapter 241



It is that time of the year again. Many of us just have, or will soon attend our first fly-in of the season and it occurs to me that it is time to shake the cobwebs off of our flying skills so that we can fly safely through the 2002 season. One of the most thrilling experiences in aviation is standing on the ramp watching other pilots take off and land during a busy, cross wind day.

Many of us don't fly regularly enough to maintain any real level of proficiency. Did you know that half of the aircraft in the general aviation fleet are flown less than 50 hours a year? Fifty hours is not even one hour per week on average. No matter how you try, this is not nearly enough time to maintain even basic proficiency, let alone enough to feel comfortable with the complex maneuvers sometimes necessary at a busy fly-in breakfast. Also consider that while you are trying to keep yourself out of trouble, many others in the pattern are doing the same thing. This is not the time to see if you remember how to do slow-flight!

So, here is Dr. Aviation's prescription for a spring tonic.

1. One of these evenings soon, turn off the TV and spend a couple of hours reading your airplane flight manual. *Hint:* some of these items are nice-to-know, while others are important systems information. Also, force yourself to practice some weight and balance and other performance calculations. (You always do this before every flight don't you? -- You should! FAR 91.103 etc.)
2. Make use of some nice spring days to go flying. Use this time to sharpen your skills by practicing those maneuvers that have been ignored over the winter. Obtain a copy of the FAA flight test criteria and use this book as a guide. A couple hours of practice are good. More is better!
3. Take along someone who will keep you honest. A CFI is best, but any current, proficient safety pilot who is familiar with your airplane is OK. A CFI will require you to push yourself to do better and will provide a knowledgeable critique.

(Continued on page 6)

(Spring Flying – Are You Ready? Continued)

Professional pilots do this by law. Amateur pilots do it because it is a good thing to do.

- 4. Be tough on yourself. Take the accepted standards in the FAA handbook and cut them in half. After all, those limits are for new pilot trainees. You are an experienced, licensed pilot and should set much higher goals for yourself...shouldn't you? The pattern is no place to try maneuvers that you did not practice at altitude.

What are the skills necessary in the real world but not covered in the flight test guide?

- 1. Reasonable decent to pattern altitude and landing planning. If you are fortunate enough to fly a 400 MPH Skyblaster, you need to plan so that you don't overrun or descend into that J-3 Cub or Ultralight in the pattern.
- 2. Know and practice proper pattern procedures... even if others don't. Also try to keep your pattern as small as traffic will bare. Number six on an eight mile final is no fun. *If you have not opened an AIM for a while, things may have changed. Be sure to read AIM 2002, 4-3-4..ed.*
- 3. Slow flight and airspeed control while following other traffic in the pattern. This should come as second nature and is self-preservation when you find yourself at 500 feet and number six on that eight mile final.
- 4. Practice Approach and Departure stalls away from the airport and at altitude. Proficiency here can save your life if your attention is diverted at 500 feet on that eight mile final.
- 5. Spot Landings – Accuracy, accuracy, accuracy. We are all too spoiled by long, wide runways with little traffic. Pick your spot and put it there and on-speed regardless of wind every time. If you are proficient here, you will feel a lot better about yourself as a pilot.

So, there you have it.. Let's all plan to be better pilots this year.

Flight Reviews

BFR Special: Ole Sindberg is offering a Biannual Flight Review for any Chapter 790 member for \$50.00. Also available are flight instruction in single and multi-engine aircraft, helicopters, as well as high performance and complex airplane checkouts.

Youth Corner.....

By: Chrissy Nabor



Last month Chrissy wrote to let us know that she had been selected as one of the eight finalists for the EAA and UND Clay Lacy Scholarship! WOW! On the last weekend in February she would be driving, along with the other finalists, to Oshkosh for the interview process. This scholarship would give her some much needed help to pay for her flight training at UND.

This month Chrissy writes:

Hey! I'm back from visiting (EAA) Oshkosh! The interview went great. There were nine of us total and they're looking at taking two or three flight instructors and one counselor (if accepted, I'd be a counselor).

It was so much fun to be back at the air academy lodge (we stayed there) and to see Horace Sanchez and Scott Cameron. While we were there we got to tour the Air Museum and ride in this really cool simulator (it was full 360 degree motion-you could do flips and rolls! - it was like a dogfight game). Then we also got to fly the RV-6 for a little while. I had so much fun there in one weekend-I really want to work there all summer!!! Although, that means I have to miss the chapter meetings with you guys :(I hopefully will be in town for the May Young Eagles Rally.)

Well, I have some major tests this week (spring break is next week, so the teachers are cramming everything in) so, I guess I'll talk to you later!

Chrissy

We also heard from *John Cunningham* at the banquet, and he tells us that he should be going for his CFI check ride this month! He's been preping for this all semester, and it will probably be an eight hour ordeal. John, also, is hoping to follow in Julie Savage's footsteps, and graduate from SIU in three years!

AREN'T THESE PEOPLE AMAZING?.... ed

You can still sign up to receive "Winds Aloft" via email in full color and even a day or two earlier. Call Abbie or Jay Friddell at 847-3382-4180 or email at abbienair@cs.com, or pjfriddell@cs.com.

VIRGINIA RABUNG **SOMEONE TO KNOW!**

By: Abbie Friddell

I had the privilege to meet Virginia Rabung a few years ago at a 99s Sectional conference. This lady glows with energy and warmth. Her enthusiasm for aviation at age 85, after nearly 60 years of flying experiences is still extraordinarily strong. She can



keep you enthralled with stories all day long, and she is one of my HERO'S!

Virginia's aviation career began in 1943 at a Chicago Flying Club meeting where she won a flying lesson in a Piper J-3 Cub. With that one lesson, she was hooked, and after

the end of WWII, she got her private pilot certificate, her instrument rating and her commercial certificate. All this while working as the secretary to the vice-president of International Mineral and Chemical Corp. – makers of the flavor enhancer "Accent". Virginia learned to fly before she learned to drive a car!

In 1953, Virginia began participating in women's air races. Her first race was the "All Women Transcontinental Air Race" from Massachusetts to California. Other races included trips from Canada to Cuba, Washington DC to Cuba, and even a 5,000 mile tour of South Africa!

Virginia has also volunteered with the Civil Air Patrol, earning the rank of Major. Serving as safety officer for the state of Illinois, she flew several missions including flood patrol and search and rescue. The CAP has recognized her with awards for her efforts in aviation safety.

The State of Illinois inducted Virginia Rabung into the Illinois Aviation Hall of Fame in 1998. Of the more than 80 inductees, only 9 are women! She is a pioneer and an inspiration to anyone and everyone that loves aviation.

Virginia lives in Mundelein. A few years ago she sold her beloved Cessna 140, but she still tries to go flying as often as possible. Someday soon, I hope that Virginia will honor Chapter 790 with a visit – you will love her!

Abbie

First Flights!

N442E

Van's Aircraft RV-6

Builder: Glenn Gordon

Build time: 1350 hours.

Engine: Lycoming O-360 (180hp)

Prop: Performance Propellers Wood 3 Blade, fixed pitch.

Empty Weight 1080

Gross Weight 1800lbs

Build time: 3.5 years + *new job + new house + new child.*

Based at: Olson Airport, Elgin, IL (LL53)

Panel: Day/Night VFR



So far I have 4 fun filled hours on this airplane. Initial performance numbers appear to be consistent with Van's published numbers. The plane is a dream to fly. It cruises fast, yet slows way down for landing.

I would like to say thank you to Ron & Ole for the tech counselor visits, Steve Flattum for test flying the airplane, my wife Judi for her assistance with the riveting, not to mention her sacrificing her parking spot in the garage, and Van's for designing such a wonderful handling aircraft.

I am already tugging at the shackles of my Phase I test area. At 200 mph, it doesn't take long to cross a 25-mile radius test area.

-Glenn

Have you visited the Chapter 790 WEB Site; www.eaa790.org? Our Webmaster, Jeff Wilson is doing a terrific job and it is certainly worth the time to check it out.



Tools in the inventory are: 2.25" and 3.144" dia. Hole Cutters, Aircraft Scales, Spark Plug Cleaner/Tester, Electronic Prop Tach, and Camlock Pliers. There are also some Letter Punches

available. There is a fee of \$5.00 if you need to borrow any of these tools. Call Ole Sindberg: (847) 639-5408

Recent additions to the toolbox are a heavy-duty engine stand on casters suitable for even the largest light aircraft engines, and a wing storage dolly also on casters. Both of these units are available for extended periods and should not be returned to Ole after use, but should be retained until the next member needs them. The usual rental fee of \$5.00 and a deposit check for \$100.00 applies.

Buy, Sell or Trade. . . .

Classified ads may be submitted by any chapter member free of charge. they will run for about 3 months unless canceled or renewed.. Non-chapter members may purchase a business card size ad for \$25 per month. Ads of 3 column inches are \$75 for the first month and \$50 for subsequent months.

For Sale : Air compressor good condition, Campbell - Hausfeld 3/4hp with 7.5 gallon tank includes quick connect fittings. \$50.00. Contact Dwight Zeller 847-524-3973 or zellerd@worldnet.att.net

For Sale Great headset. Asking \$125. Contact Ron Liebmann 847-352-8282

The Chapter 790 Annual Banquet: a great success!

If you missed this year's annual banquet at the Millrose Brewery, you missed a great time. The music was great, the fellowship was great, and the Guest Speaker, Ted Costin had some great photos. Some from the very early days of aviation. Just in case you did miss the event, a few extra pictures from the evening are included on this page.

We do have more exciting events planned for the year so check the schedule on page 3 and set aside some time for fun!



Meeting Information

The Chapter 790 meeting dates have been returned to the traditional 4th Tuesday of each month. The March meeting is scheduled for 7:00 PM, Tuesday, March 26th at the Knights of Columbus, "Barrington Banquets" on Kelsey Road just north of Northwest Highway (Hwy. 14) ..

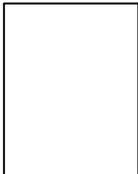


Pre-meeting Checklist

- Name Tags
- Chapter Videos to return to meeting
- Chapter Tools to return to Ole

The Newsletter is always looking for interesting articles and pictures by our chapter members. If you have written anything or would like to write something or have pictures that you believe would be of interest to the chapter members, please submit what you have. The newsletter staff prefer that you e-mail your articles to pjfriddell@cs.com or abbiennair@cs.com. We prefer text written in Microsoft Word, however, you may submit the material any way that is easiest for

YOU! We also accept hand –written copy, floppy disks (IBM Format), Zip disks (IBM format), and CD's. Bring your article to the meeting or mail it to Abbie Friddell at 166 Harbor Rd. Barrington, IL 60010-1531



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