

WINTERFALL

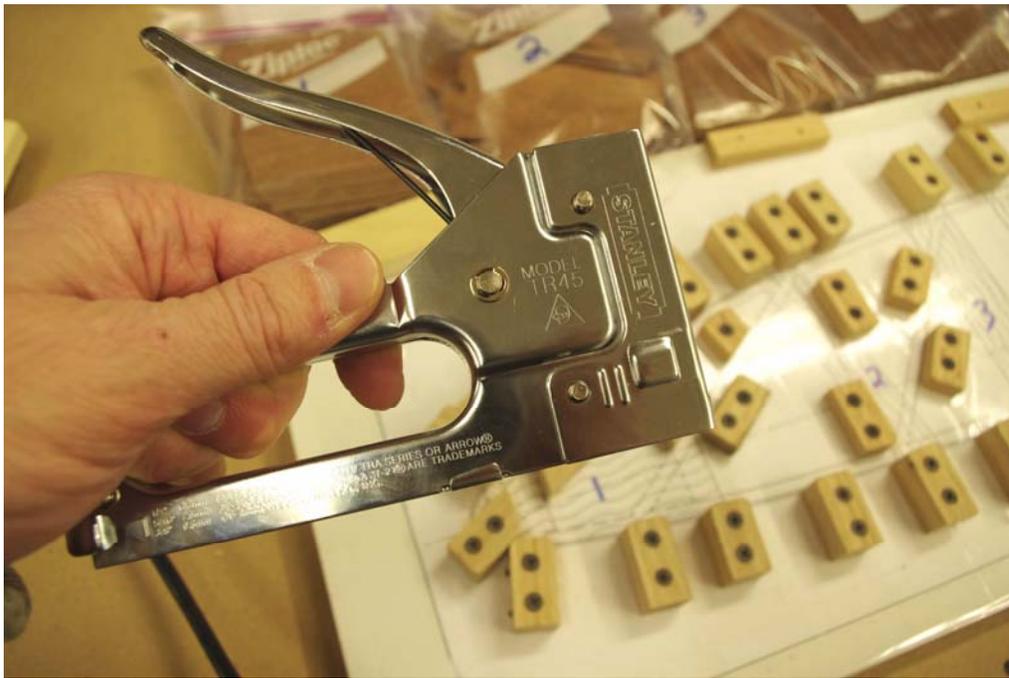
EAA CHAPTER 25

MINNEAPOLIS / ST PAUL, MN

MARCH 2014

Stapler Mod for Wood Rib Construction

By Pat Hoyt



While building the wood wing ribs for my latest project, I found that I needed a better way to temporarily secure thin plywood gussets to the capstrips while glue cured.

Clamps, weights, nails, and staples were the options considered.

There are lots of interesting clamps and clamping arrangements out there, and some builders have made some really fancy jig/clamp combinations out of things

(Continued on page 4)

The Bird Stopped Flying and Became Quiet

By Lou Martin

My parents, especially my mother, were devout Catholics and insisted that our entire family attend mass and receive Holy Communion every Sunday and religious holidays in Our Lady of Sorrows Church in Ladysmith, Wisconsin. Catholic dogma at the time required parishioners to abstain

from consuming all forms of food and drink from midnight the night before. To prevent us from violating this prerequisite my mother would tie towels around the cold-water faucet in the kitchen along with issuing strong oral reminders not to eat or drink from midnight on.

(Continued on page 6)

*Lou Martin
at age 11*



"Say Intentions"

Mar meeting, Feb minutes

P2

P3

Final Approach Trivia Quiz

Liz Strohfus

MAHOF Banquet

P3

P5

Great MN Aviation Gathering

For Sale

P7

Events

P6

P8

"Say Intentions"



-an update from Kim V. (Gudgeon Pin)
Johnson, EAA Chapter 25 President

The Post WWII Air Force Airplane Identification and Fun Facts Game Night ended in a tie between Team 1-2 and Team 3-0 at our Chapter Meeting last month. Hope you all had fun. I would encourage you to share your pictures of a fun aviation or flight experience. We will help you put it

together and present it. In fact, Mike Tompos volunteered to tell us about his recent experience flying in Southern California at our May 21, 2014 Chapter 25 meeting. He is going to share pictures and tell us about the airspace, VFR corridors, special flight rules and flying in and out of Catalina and Santa Monica Airports.

Our meeting this month on Wednesday, March 19, 2014 will be a **Plans Night** so gather up any plans you have and come and share them with us.

Remember to put Friday and Saturday, March 21-22, 2014 on your calendars for the Minnesota Pilots Association's first annual Great Minnesota Aviation Gathering at the Golden Wings Air Museum at KANE. You can register for the MN Pilot's Assoc. and get more information about the organization and the Aviation Gathering at <http://www.mnpilots.org>. The Minnesota Pilots Association's aim is to serve as an organization which brings together members of EAA, AOPA, flying clubs, 99's, etc., in order to generate a more active voice in matters pertaining to pilots and general aviation in Minnesota.

At our meeting on April 16, 2014, Jason McCann, lead CFI at Exclusive Aviation at Downtown St. Paul Holman Field will, weather permitting, fly a Cessna 162 Sky-catcher to the BSAEC, and tell us about the airplane and all Exclusive Aviation has to offer.

Don't forget to bring a package of: pre-cooked brats, hot dogs, hamburgers, buns, condiments, deli salads, beans, chili, chips, cookies, plastic utensils, paper plates, cups and paper towels, soft drinks and water and bring them to the Chapter meeting. Perhaps it would make it easier if we asked for a Food Coordinator and cooks on a monthly basis.

Every Wednesday evening that there is not a Chapter meeting, there is a Chapter 25 Pietenpol building project in which you can participate. We start at 6:00 pm at Dale Johnson's workshop in Burnsville. Come ready to work and we'll give you a task to do in the building of a Pietenpol Air Camper. Find a Piet builder to talk to if you have questions about this.

There is no lack of opportunities for involvement in Chapter 25 activities. We will work it out so that you can participate at your own level of

(Continued on page 8)

ON FINAL



Minneapolis/St. Paul

Visit our website at eaa25.org

President

Kim V. Johnson 651-238-6010
kvince989@gmail.com

Vice President

Ned Lebens 952-567-3329
nlebens@gmail.com

Secretary

Gordon Duke 651-227-9026
g_duke@hotmail.com

Treasurer

Patrick Hoyt 651-688-7747
pwhoyt@yahoo.com

Membership Coordinator

Kris Olson 651-675-6826
ksimpson2@yahoo.com

Web Editor

Jeff Coffey
jeffcoffey@gmail.com

Newsletter Editor

Pete Gavin 612-866-6676
petegavin@comcast.net

Young Eagle Coordinator

Kris Olson 651-675-6826
ksimpson2@yahoo.com

Technical Counselors

Bob Eckstein* 763-494-6993
rwxstein@comcast.net
Peter Denny 763-529-5325
peterthepilot99@gmail.com
Ami Sela* 612-860-3734
selaami@comcast.net

* also flight advisor

ON FINAL is published monthly by Chapter 25 of the Experimental Aircraft Association (EAA) for the use, education and enjoyment of Chapter members and others to whom it is provided. No claim is made for the accuracy of materials presented. Editorial content is the opinion of the contributor and does not necessarily reflect the position of Chapter 25 nor EAA. Submissions for publication, questions or comments on articles, etc. are encouraged and should be addressed to: **Pete Gavin 6905 12th Ave So, Richfield MN 55423 612-866-6676 email petegavin@comcast.net** Submission deadline: 1st Wednesday of the month. New or renewal memberships (\$25/year) should be addressed to: **Kris Olson, 110 7th St. N, Cannon Falls, MN 55009**. Permission for other EAA Chapters to use the non-copyrighted portions of this publication is hereby given as long as the source is acknowledged. Any copyrighted material that appears in this newsletter is with the permission of the acknowledged copyright holder. Any further copying must obtain the permission of the original copyright holder.

This Month: Wed Evening Mar 19th—BSAEC at Airlake

Grill on at 6pm, Meeting starts at 7pm

Please bring something to share: pre-cooked brats, hot dogs, hamburgers, condiments, deli salads, beans, chili, chips, cookies, plastic utensils, paper plates, cups and napkins, soft drinks and water. We also need a couple volunteers to cook!

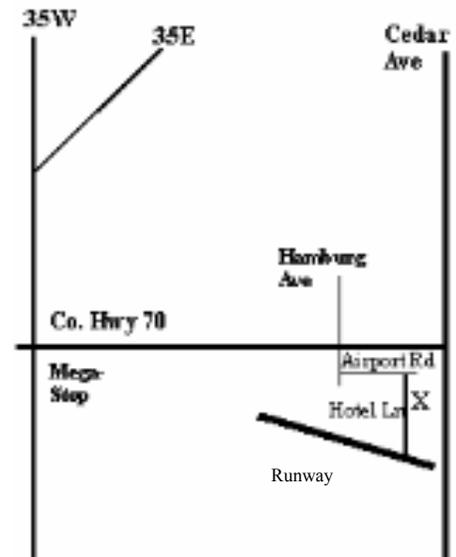
Program: Our meeting this month will be a **Plans Night** so gather up any aircraft plans you have and come and share them with us.

Fri/Sat Mar 21-22 Great MN Aviation Gathering at Golden Wings Air Museum, Anoka Airport. See page 6.

Saturday Apr 12th MN Aviation Hall of Fame Induction Banquet at Ramada Mall of America, social hour begins at 4:45pm—See page 5.

Saturday Apr 19th Young Eagles at Airlake, 9 am. To volunteer to help with young eagles, contact **Kris Olson:** 651-675-6826 ksimpson2@yahoo.com

Directions to BSAEC (Chapter Hangar at Airlake): South on I-35 to Hwy 70 (Megastop), then East to Hamburg Ave (3rd stop sign.) Right turn and South to airport perimeter road. Left on airport perimeter road then right on Hotel or India Lane. If the surface is firm, please park on space between hangars.



EAA Chapter 25

Meeting Minutes for Wednesday 19 February 2014

Presiding Officer, Kim Johnson, President

Bert Sisler Aviation Education Center at Airlake Airport, Minnesota

The meeting was called to order by Kim Johnson, President, who recognized guests and welcomed members. Member Mamie Singleton introduced a special guest, Fannie Webb. Ms. Webb's husband served in WWII as crew of an Air Force Tanker. Later, she and her husband mentored youths, some of whom showed an interest in aviation. Ms. Webb spoke of her work and some of the youths she worked with. Sadly, her husband is now deceased.

Lou Martin led the pledge of allegiance and the chapter observed a moment of silence in honor of those who served our country.

Members were reminded of the First Annual Great Minnesota Aviation Gathering at Golden Wings Museum Anoka Blaine Airport on Friday and Saturday, March 21 and 22, 2014.

The Treasurer's Report was passed around to members for review and comment. Patrick Hoyt, Treasurer, reported that expenses for the month were normal and that the Chapter was solvent.

Thanks were given to Member Kris Olson for coordinating

the food and to Member Gary Steiner for cooking. President Johnson reminded members that a volunteer is needed to serve as Food Coordinator.

Director Dick Navratil spoke highly of Member Lou Martin's new book on his aviation experiences.

Member Dale Johnson spoke briefly about several Stearman PT-13 and PT-19 aircraft that he is restoring at Anoka Blaine airport. Member Greg Cardinal gave a progress report on the Pietenpol project. Wednesday 26 February 2014 is the next build session.

For the program, President Johnson and Vice President Ned Lebens led an airplane recognition and trivia game based on President Johnson's visit to the South Dakota Air and Space Museum on Ellsworth AFB, SD. Members were divided into two teams: runway 30 and runway 12. Points

(Continued on p. 8)

Final Approach Trivia Quiz ***from John Schmidt***

When flying a turbocharged airplane, what is "bootstrapping?"

Answer on page 7

Stapler Mod for Ribs

(From Page 1)

like routed hardwood and lexan. While that would make sense for somebody who's mass-producing ribs for others, I wanted to keep things simpler.

The clamps that I have couldn't always reach where they were needed, and they were sometimes in the way, or were too easy to bump. They often needed to be rechecked as work progressed, as the pieces they were securing would sometimes "slide" on the slick epoxy before it had a chance to cure.

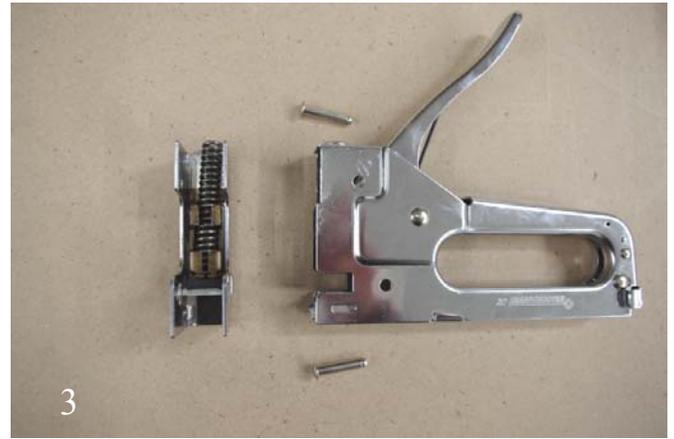
Weights would have the same issue with the work sliding around on top of the slippery epoxy before it cured, and bumping the rib jig at the wrong time could dislodge several of the weights at once. And when I had a wing rib glued up, I wanted to be able to move it out of the way, and free up my workbench for other stuff while glue was curing.

Nails are used by some builders, and are often just left in place. But the idea of leaving hundreds of metal nails embedded in my wood wings just didn't sit well with me. I have no idea what several hundred nails weighs, but it's got to be more than what the other options added. And removing nails seemed like it would be a lot of extra work.

Staples seemed worth looking into, so I bought a cheap stapler gun (picture on cover) and some 1/4" staples from the local Home Depot Aviation Supply Center.

Testing the stapler on some scrap 1/16" plywood and pine showed that the staples were being driven extremely hard - even hard enough to damage the thin plywood. Staples driven in like that would have to be left in, as digging them out would damage the wood even more.

I modified the stapler gun so that the staples will not be driven in so hard.



The stapler is held together with two steel pins. There is a small circllet that needs to be pried off the nose of each pin before it can be removed. Once the two pins are removed, the front of the stapler can easily be pulled off (picture 2).

Inside the stapler is a stout spring (picture 3). Cutting off a little bit of this spring with an angle grinder will reduce the force by which the staples are driven. Securing the spring in a pair of vice-grips (picture 4) makes cutting easier.

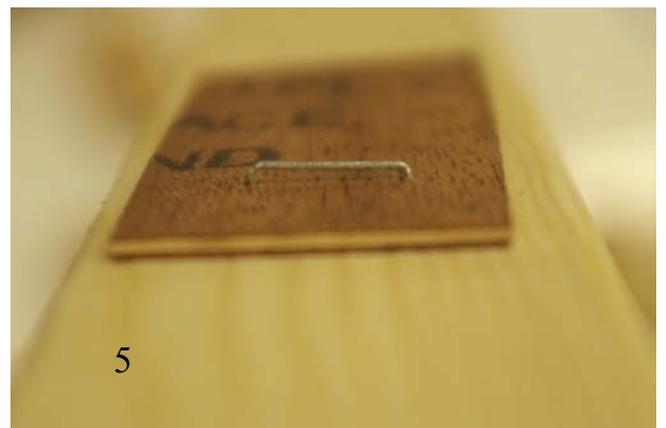
I trimmed roughly half of a "loop" from the spring at a time, and then put everything back together and tested it. After a few iterations, the stapler was performing how I wanted it.



The result was that the staples were driven far enough into the wood to secure it until the epoxy cures, while yet sticking up enough to allow for easy removal later (picture 5).

At this time I have completed about half of the wing ribs for my project, and have used this modified stapler with good results.

Patrick Hoyt



Liz Strohfus Honored at EAA Airventure Museum

Article and photo by Nathaniel Shuda/Oshkosh/
Northwestern Media (forwarded by John Schmidt)

http://www.postcrescent.com/article/20140307/APC0101/303070327/Women-s-Airforce-Service-Pilot-veteran-visits-EAA-AirVenture-Museum?gcheck=1&nlick_check=1

For Betty Strohfus, going through the EAA AirVenture Museum on Friday morning was like taking a flight back into time.

The 94-year-old former World War II pilot got a chance to relive her time in the Women's Airforce Service Pilots, also known as WASPs — an elite corps of female pilots in the 1940s — as part of a series of events this week that were associated with the staging of the University of Wisconsin-Green Bay's latest production, "Censored on Final Approach."

Strohfus joined the cast of the Phylis Ravel play, which tells the story of the WASPs and their struggles with sexism during the time period, for the morning event at the museum. At the end of the tour, EAA officials had one more surprise in store for the nonagenarian — the chance to get up onto an AT-6 combat trainer with her name on it. The airplane was of the same type Strohfus flew when, as a WASP, she taught male fighter pilots to fly.

"I scared the hell out of the gunners with this," Strohfus said to a group of a couple dozen people who gathered Friday in the museum's Eagle Hangar. "I wasn't tall enough to be first pilot, but they let me be copilot."

Chris Henry, membership services director for the EAA, said the chance to witness part of history is what makes his job worthwhile.

"Every day I get to deal with veterans, and it's the highest honor, but to reunite a pilot with her (type of) airplane is something really special," Henry said, noting a lot of times male pilots who were well known or excelled at their craft got their names on the side of a plane, but very rarely — if at all — did women get that honor.

"WASPs don't ever get the attention they deserve," he said. "We decided to change that today."

Hannah Blecha, a UW-Green Bay theater student and member of the "Censored" cast, said being able to meet Strohfus brought a deeper meaning to her portrayal of WASP Catherine Watts in the play.

"We feel like we've learned so much in history (class), but you don't realize how much you don't know," Blecha said. "I



Elizabeth 'Betty Wall' Strohfus, 94, reacts to seeing her name on the side of an AT-6 combat trainer during a Friday visit to the EAA AirVenture Museum in Oshkosh. Strohfus is one of only a few remaining members of the Women's Airforce Service Pilots group that served during World War II.

didn't even know the WASPs existed until three months ago when I tried out for the play."

Strohfus said sharing her experiences with Blecha and her castmates, as well as seeing her name on the side of the plane, were both an honor and an unexpected privilege.

"A lot of people deserve things but never get them," she said, wiping tears from her eyes. "I never expected this."



MN Aviation Hall of Fame Banquet April 12

The Minnesota Aviation Hall of Fame will hold its annual induction banquet at the Ramada Mall of America on Saturday, April 12th. Social hour begins at 4:45pm and banquet seating begins at 6:15.

Being inducted on the 12th will be: **Martin Coddington**, FAA tower controller and airline Captain; **Col. Craig Duehring**, Vietnam O-1E "Raven" pilot and NATO commander; **Greg Herrick**, entrepreneur, antique aircraft restorer and heritage preservationist; **John O. Roberts**, Mankato State Aviation Program creator; **William B. Stout**, pioneer aircraft designer and inventor; and **John H. Wastvedt**, WWII Marine airman, Honeywell employee and airline developer.

In addition to the inductees, the MN Aviation Hall of Fame will present awards to **Noel Allard** for Best Aviation Writing by a Minnesotan for 2014 and to **John Valo** for Best Aviation Art for 2014. The Hall of Fame will also present monetary scholarships to young adults entering into aviation careers. The FAA will also be using our stage to present their annual awards.

Registration materials can be found at www.mnaviationhalloffame.org. Please register by Mar 28.

The Bird Stopped Flying ...

(Continued from Page 1)

In the late 1930s, during one of these Sunday morning sessions something happened that is difficult to understand or explain. As usual, our family arrived a few minutes early and settled down in a pew to pray for bountiful food, give thanks for our continued good health and that our father would soon find rewarding employment. However, a disturbing happening was taking place that made it difficult to concentrate on praying and caused considerable anxiety throughout the entire house of worship. A small bird was frantically flying back and forth inside the church while looking for an escape from its unintended captivity. All eyes were on the bird's noisy hysterical antics and were concerned that its raucous behavior would disrupt the sanctity of the mass that was about to begin.

However, to everyone's amazement as soon as the priest and altar boys entered the vestibule to initiate the start of the solemn service the bird stopped flying and perched on top of a statue of the Blessed Virgin. It remained there, as if frozen, without making a sound during the entire ceremony, including the priest's lengthy boring sermon. For the next 60 minutes, it never flew, chirped or made a sound. When the mass ended, it left its perch and assumed its erratic circling before escaping through a window opened by a male parishioner! (I witnessed this strange phenomenon when I was about 11 years old and to this day cannot explain it.)

The above is an edited excerpt from my book "My Life in Lady-smith Wisconsin 1928 to 1948"

Lou may be contacted on pilotlou@aol.com



Classic Flying Quotes... from Jim Ladwig

6. *There is no excuse for an airplane unless it will fly fast!*
~ Roscoe Turner
7. *The ships hung in the sky in much the same way that bricks don't.* ~ Douglas Adams
8. *Aviation is proof, that given the will, we have the capacity to achieve the impossible.* ~ Rickenbacker
9. *Flying is like sex—I've never had all I wanted but occasionally I've had all I could stand.* ~ Stephen Coonts
10. *The desire for safety stands against every great and noble enterprise.* ~ Cornelius Tacitus (circa AD 56)
11. *Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect.*

MN Pilot's Association 1st Annual Great Minnesota Aviation Gathering March 21-22 Golden Wings Museum

The first annual Great Minnesota Aviation Gathering will provide an opportunity to come together to celebrate aviation. This event will be highlighted by a number of terrific presentations for pilots that we have called "Hangar Flying", in which we focus on piloting skills, safety aspects of flying and topics which will help us come out of the doldrums of shoveling snow and back into the cockpit. Before and after the hangar flying sessions will be exhibits of aviation-related products and organizations.

We hope you will join not only the Minnesota Pilots Association (with free admission to the Gathering), but also join us at the Great Minnesota Aviation Gathering.

GREAT MINNESOTA AVIATION GATHERING

Golden Wings Museum



www.mnpilots.org

info@mnpilots.org

612.231.2153

www.facebook.com/mnpilots

See over 30 aviation exhibitors
Participate in FAA Safety Seminars
Sit in on many different aviation forums
Meet with pilots from across the state
Tour the Golden Wings Museum

**Friday, March 21st, 9am to 9pm
Saturday, March 22nd, 9am to 4pm**

Admission \$5.00 per person - per day
· Free to MNPilots members
and attendees 18 and under

Stuff for Sale/Wanted

For Sale: Flightcom Model 403mc Voice Activated Monaural Aviation Intercom.

Four place, panel mount. New in box. Email roehler533@gmail.com

Wanted: Your dusty old VFR instruments for my Pietenpol project. Please contact Ned Lebens 952-567-3329 or nlebens@gmail.com

For Sale: Ellison EFS-2 Throttle Body Injector
don schlais <d.schlais@hotmail.com> 763-479-8228

For Sale: Aviation Books. Oldies, classics, some brand-new, some autographed. Inexpensive! Cutting down my library. I can e-mail a listing. Noel Allard. nallard@unitelc.com.



Answer to Final Approach Quiz (See page 3)

In a turbocharged aircraft, when you reach an altitude when the wastegate is fully closed the engine could also be prone to "bootstrapping;" the turbo is unregulated and "hunting" for a correct setting.

This can occur when the manifold pressure drifts up and down, or fluctuates, causing a corresponding drift in exhaust pressure, which causes a drift in turbocharger turbine and impeller speed, which causes a drift in manifold pressure, etc. The pilot adjusts power at or above critical altitude, and the turbocharger begins chasing itself. With the wastegate fully closed, any increase in power increases exhaust output. That, in turn, increases turbine speed, which increases MP, which increases power, which increases exhaust flow, which increases turbine speed...you get the idea. Power adjustments become a continuous tail chase.

Some turbos are so sensitive that throttle adjustment of any kind results in bootstrapping. Others respond with less variation. Smart pilots always adjust power slowly on any airplane, normally aspirated or turbocharged, but it's especially important on engines with a blower out front.

Some turbocharger systems also incorporate a differential pressure controller, which eliminates "bootstrapping." Although it's not detrimental to the engine, bootstrapping (or fluctuating power) can be annoying to pilots and passengers.

Very few Pietenpols are known to be flying with turbochargers.



Red Wing Soaring Association

Scenic Demonstration Rides and Memberships Available!
 No prior aviation experience required
 FAA Certified Flight Instructors



Located at Hangar H-1
 L.O.Simenstad Airport Osceola WI
 Phone: 651-653-1631
 Email: info@rwsa.org
 Website: www.rwsa.org

Flight Training
 Flight Reviews
 Finish Ups

Plane Rental
 - Piper
 - Cessna



Call or Email to Schedule Your Flight!

www.airtreknorth.com

Air Trek North
 22100 Hamburg Ave
 Lakeville, MN 55044

Located inside the AirLakE FBO



Randy Schoephoerster
 Phone: 952-594-1184
 E-mail: randy@airtreknorth.com

MINNESOTA
 PILOTS ASSOCIATION

www.MNPilots.org
Info@MNPilots.org

Minnesota Pilots Association
 12000 Elm Creek Blvd. Suite 350
 Maple Grove, MN 55369

Chapter Events

Mar 19th Chapter Mtg at BSAEC, 6 pm
(see page 3 for map & directions)

Mar 21-22 Great MN Aviation Gathering
Golden Wings Air Museum, KANE

Apr 12th MN Hall of Fame Banquet
Ramada Mall of America, social hour at
4:45, see www.mnaviationhalloffame.org
for reservation information. More on p.5

Apr 19th Young Eagles at Airlake
contact Kris Olson (see p2) if you can
volunteer

Future meetings 4/16, 5/21, 6/18, 7/16,
8/20, 9/17, 10/15, 11/19, 1/21, 2/18, 3/18

APPLE AUTO GROUP



Apple Ford Shakopee 800-737-0489
Apple Valley Ford Lincoln Mercury 800-737-0481



Check out the
2014 Ford Edge

One Low Price.
Plain and simple.
Always!

“Say Intentions” *from page 2*

availability. We are looking for a Food Coordinator, a BSAEC hangar maintenance task force, newsletter writers (write a story about an aviation experience or an interview someone about their aviation interest) and a librarian. See me if you are interested in serving in any of these capacities.

Four of my goals for Chapter 25 continue to be:

Encourage Chapter 25 membership by young men and women with an interest in aviation.

Encourage younger members to get actively involved in Chapter 25 activities.

Have all members get to know each other better.

Perpetuate the Chapter 25 Mission of furthering interest in building custom aircraft and supporting all with an interest in aviation by sharing our knowledge and experience.

“One never notices what has been done; one can only see what remains to be done.”

--Marie Curie, Polish-French physicist and chemist

Looking forward to seeing you at the meeting!



Feb Minutes *(Continued from page 3)*

were awarded for correct responses. At the end of the night, the two teams tied with each receiving 36 points.

Twenty members signed the attendance log.

There being no further old or new business, President Johnson adjourned the meeting.

Submitted by Gordon Duke, Secretary



Stein Bruch
President

Tel: 877-STEINAIR -or- 651-460-6955
Fax: 651-305-0746
Email: stein@steinair.com

SteinAir, Inc.
21170 Eaton Ave, Suite A
Farmington, MN 55024
www.SteinAir.com

CONTINENTAL
LYCOMING

Bolduc Aviation Specialized Services, Inc.

ANOKA COUNTY AIRPORT DARRELL E. BOLDUC
8891 AIRPORT ROAD PRESIDENT
MINNEAPOLIS, MN 55449 (763) 780-1185

“SPECIALIZING IN ENGINE REBUILDING AND REPAIR”



Philip A. Sidell MD

Family Physician
Aviation Medical Examiner

(952) 926-3002 3920 Sunnyside Road
Fax (952) 926-7744 Edina, Minnesota 55424

New
Richmond
Insurance
Agency, Inc.

Bruce Bottolfson

Aircraft and Hangar Insurance

PO Box 367
1225 N. Knowles Ave.
New Richmond, WI 54017

Phone: 800-747-1619



www.newrichmond-insurance.com