



# The Beacon

The newsletter of Chapter 54  
Lake Elmo, Minn.

NOVEMBER 2004

## NOVEMBER 2004

### THIS MONTH'S PROGRAM

MONDAY NOVEMBER 8TH, 2004

- SOCIAL HOUR AT 7 P.M.
- MEETING AT 7:30 P.M. CHAPTER HOUSE, ENTRANCE B, LAKE ELMO AIRPORT
- OUR NOVEMBER SPEAKER WILL BE DONALD MARK JR WHOSE

PRESENTATION WILL BE ON "DOWNTOWN ST PAUL MID-AIR."

MR MARK WHO IS AN AVIATION ATTORNEY WILL DESCRIBE THE EVENTS THAT RESULTED IN A MID-AIR COLLISION BETWEEN TWO AIRCRAFT FLYING IN VFR CONDITIONS LESS THAN ONE MILE FROM THE CONTROL TOWER. HE WILL DISCUSS WHY THE ACCIDENT OCCURRED, WHO WAS RESPONSIBLE AND HOW IT COULD HAVE BEEN AVOIDED.

## THE AMAZING RUSTING ALUMINUM

BY: *THEODORE GRAY, POPULAR SCIENCE, OCT 7TH, 2004*

Rust can hold an airplane together or dissolve it to bits.

Unless you are a representative of a national meteorological bureau licensed to carry a barometer (and odds are you're not), bringing mercury onboard an airplane is strictly forbidden. Why? If it got loose, it could rust the plane to pieces before it had a chance to land. You see, airplanes are made of aluminum, and aluminum is highly unstable.

Wait, isn't one of the great things about aluminum that, unlike iron, it doesn't rust? Am I talking about the same aluminum? Yes! Your aluminum pot is made of a highly reactive chemical. It simply has a trick that lets it disguise itself as a corrosion-resistant metal.

When iron rusts, it forms iron oxide—a reddish, powdery substance that quickly flakes off to expose fresh metal, which immediately begins to rust, and so on until your muffler falls off.

But when aluminum rusts, it forms aluminum oxide, an entirely different animal. In crystal form, aluminum oxide is called corundum, sapphire or ruby (depending on the color), and it is among the hardest substances known. If you wanted to design a strong, scratchproof coating to put on a metal, few things other than diamond would be better than aluminum oxide.

By rusting, aluminum is forming a protective coating that's chemically identical to sapphire—transparent, impervious to air and many chemicals, and able to protect the surface from further rusting: As soon as a microscopically thin layer has formed, the rusting stops. ("Anodized" aluminum has been treated with acid and electricity to force it to grow an extra-thick layer of rust,

*(Continued on page 4)*

## INSIDE THIS ISSUE

THE AMAZING RUSTING ALUMINUM	1
PRESIDENT'S REPORT	2
TREASURER'S REPORT	3
CLASSIFIEDS	3
MAHEC OFFERS AN OPPORTUNITY	5
OCTOBER MEETING MINUTES	6
MAC COMMITTEES	8
2004 ELECTION	8
FARNSWORTH ELEMENTARY AEROSPACE SCHOOL	9



**PRESIDENT'S COLUMN**  
*BY PAUL HOVE*

Finally Valter's Aviation has 24 hour self service fueling. The system will honor Visa, Master Card and Discover credit cards. If you wish to pay by check or cash you will have to go inside. At this writing 100LL aviation fuel was \$2.69 per gallon.

Thanks to Dave Fiebiger's lobbying, MAC has planted 26 small pine trees around the South Entrance to the airport. They should give the entrance a majestic look when they mature.

Jill Wall, Aerospace Coordinator for the Farnsworth Aerospace Elementary Magnet School in Saint Paul, was the chapter guest speaker at the monthly meeting in October. Jill is an energetic individual with a passion for teaching children and the program that she described fits well with our charter to further aviation. After a lively discussion the members that were present at the meeting voted to donate \$1000.00 to the school to help fund the fourth grade trip to Aviation Camp that will be held at the EAA Academy in Oshkosh.

The Chapter has received the donation of a military seat parachute. The parachute was last packed on 8/7/77 and is at 24 foot canopy packed in a seat type harness. S/N Irving 34553. We plan on selling tickets for a drawing at the next meeting on November 8th. Tickets will be available at the meeting and the drawing will be held after the guest speaker.

(This excerpt is from the AVflash newswire)  
You've all heard the election results by now, but here is the GA spin on Tuesday's votes. AOPA says 95 percent of the 105 congressional candidates it endorsed won their seats. But the election determines more than who's in and who's out. In the Senate, Alaska Sen. Ted Stevens takes over chairmanship of the powerful Commerce, Science and Transportation Committee

which sets policy for the FAA from Arizona's John McCain. AOPA's glad to hear it, since they never could get McCain to sign on to their view regarding user fees. Stevens is "a strong and forceful friend to general aviation," AOPA said. The loss of Sen. Tom Daschle, a pilot, may be a wash in AOPA's view, because his successor, John Thune, "has historically been a friend to general aviation." As for the presidential election, AOPA declined to endorse either candidate, saying that the major decisions affecting AOPA members are decided by Congress.

Dick Wicklund has a 1/5 scale Wright Flyer project at the chapter house that he is attempting to restore. See the story elsewhere in this newsletter.

Doug Weiler writes - Got brave this past weekend and decided to fly the -4 to Chicago Midway. A toy RV can mix it up with the big guys just fine. Stay under the class B, talk rapidly to approach, and up the credit card limit for that \$4.05/gal 100 octane at Atlantic Aviation. But Atlantic and the tower folks treated us just like any other heavy iron.



**TREASURER'S REPORT**  
*BY PAUL LINNEROOTH*

October's Financial Summary

Cash on hand	\$ 40.00
Checking Acct.	\$ 5,675.83
Investments	\$ 6,268.74
Total	\$11,984.57

Income in October consisted of \$575.00 in membership dues and \$50.00 in donations for a total of \$625.00.

Normal expenses for the same period were \$95.67 and included \$63.28 for newsletter publication and \$32.39 for utilities. Additionally, a check for \$1,000.00 was sent to Farnsworth School Association, Farnsworth Aerospace Elementary Magnet School as approved at the September meeting.

**CLASSIFIEDS**

**FOR SALE**

Tom Olson's Hangar  
Gate B, 21D, India Lane, 8B

50' X 70' side parking lot & tie down  
50' overhead doors each side of hangar  
Secure access control  
Video surveillance  
Insulated / Heated  
Shop / Lounge  
New siding  
New roof  
80 gallon air compressor  
3500 gal. water tank.

Contact Scott Olson  
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Young Eagles Director  
Al Kupferschmidt

Chapter member meet on the second Monday of every month at the Chapter House, Entrance B at Lake Elmo Airport (21D). The House is at the base of the airport beacon. The newsletter is printed on the first Monday of every month. Parts of the newsletter may be reprinted with appropriate credit.

21D RCO 118.625  
21D Unicom: 122.8  
TPA: 1932'  
Runways: 4-22 (2497' x 75')  
14-32 (2850' x 75')

*Aluminum (Continued from page 1)*

because the more you have on the surface, the stronger and more scratch-resistant it is.)

This invisible barrier forms so quickly that aluminum seems, even in molten form, to be an inert metal. But this illusion can be shattered with aluminum's archenemy, mercury.

Applied to aluminum's surface, mercury will infiltrate the metal and disrupt its protective coating, allowing it to "rust" (in the more destructive sense) continuously by preventing a new layer of oxide from forming. The aluminum I-beam below rusted half away in a few hours, something that would have taken an iron beam years.



Just a small amount of mercury paste starts turning this aluminum I-beam to dust.

I've heard that during World War II, commandos were sent deep into German territory to smear mercury paste on aircraft to make them inexplicably fall apart. Whether the story is true or not, the sabotage would have worked. The few-micron-thick layer of aluminum oxide is the only thing holding an airplane together. Think about that the next time you're flying. Or maybe it's better if you don't.

<http://www.popsci.com/popsci/how2/article/0,20967,693558,00.html>



## MINNESOTA AVIATION HISTORY AND EDUCATION CENTER – MAHEC – OFFERS AN OPPORTUNITY

BY DICK WICKLUND

Minnesota Aviation History and Education Center – MAHEC – Offers an Opportunity

If you have been at the EAA Chapter 54 club house lately you have perhaps noticed two airplane models. One is a WWI German Folker Tri-plane currently hanging from the clubhouse ceiling. The other is a 1/5th-scale model of the Wright Flyer that I have taken on as a “simple” project as it only seemed to require cleaning and minor repair.

MAHEC has an opportunity for someone this winter. The opportunity is to complete a model of a 1917 Sikorsky Model A-1 seaplane. The wings are completed as are all control surfaces and the float. The fuselage needs to be built but it is simply sticks and wire, retractable land-

ing gear and wood mockup of the engine. Plans for the model as well as most material to complete this project are on hand.

These three aircraft models mentioned above along with a completed 9’ wing span Spirit of St. Louis were built by 9th grade students in an aviation class that was offered by the Bloomington school district. Ollie Kordahl was the instructor and arranged for the donation to MAHEC.

Interested? Call me at 651-777-9142 or via e-mail at [jwwick@juno.com](mailto:jwwick@juno.com)

You could also drop in at the EAA54 clubhouse if you see my van parked outside and I can show the project to interested individuals.



**EAA CHAPTER 54—OCTOBER MEETING MINUTES**  
*BY BETTIE SEITZER*

The meeting was called to order.

One visitor was in attendance, Mitch Zaller, he flies a Swift, is currently working on a warbird project and used to have a T6.

Treasurer's report was presented and approved

Secretaries report was presented and approved

### **New Business**

A reminder about the Ford partner program: EAA members receive discounts of purchases or services by showing their membership cards.

### **Chairmen reports**

#### **Newsletter**

A reminder that the newsletter is posted, not emailed to members. Members must go to the website and download the newsletter. A notice is sent out when it is available each month.

#### **Education**

Ground school is set to begin on Feb 7, it will continue through April 28. Meetings will be on Mondays and Thursdays with the exception of meeting nights. Ground school is free to chapter members, members may choose to attend individual sessions as refreshers on specific topics. The agenda will be available at the beginning of the series. The intention is to provide training for Sport Pilot candidates as well.

#### **Young Eagles**

Al reported that on the previous Saturday they flew 42 kids (mostly girl scouts). Al welcomes pilots who want to participate and particularly needs pilots who are available during the week.

#### **Housing**

Dave has done a fantastic job of gathering donations from local (and not so local) nurseries. They have been planted around the clubhouse and look great. He has wrapped them to protect the bark from rabbits and deer over the winter months. He is also expecting evergreens which will be planted along the fence to help beautify the entrance to our airport. Dave will be preparing thank you letters for the contributors. Help is needed with the grass trimming around these young trees. Please be careful not to damage the trunks if you do help with the trimming – weed whips can be very hard on tender bark.

#### **Lease Rates**

Al K. attended a meeting regarding airport lease rates. The current rates are 13 cents, the expectation is that the rates will go up to 42 cents within 5 years, with one big step up to 30 or 35 and then a 5% increase every year.

A parachute was donated, it will be raffled at the next meeting. It is a military chute and can be inspected at the next meeting.

Jill Wall presented an overview of the education program at the Farnsworth Aerospace elementary magnet. This is a St. Paul public magnet school providing K – 6 children with an opportunity to learn about aerospace and aerospace careers in a school setting. Every age group participates in learning opportunities that build an increasing understanding of all aspects of aviation. The curriculum has been carefully developed to include age appropriate activities.

The school has websites that help the children and their families learn more about aviation in our country and our community. Jill mentioned that many of the families become very interested in what the children are learning and

more appreciative of what aviation offers.

The school has 2 cockpit simulators; the children must complete 7 weeks of ground school, a study guide and a test before they are allowed to “fly”. They can earn additional time on the simulators through academic achievement.

Jill feels that the program stresses teamwork, builds confidence and ability to learn, and builds awareness of jobs associated with aviation and space programs.

4th grade children are eligible to go to a special 3-day camp at Oshkosh. This camp was designed for their program and takes place during the school year; 40 children went recently. This camp costs \$125 per child and all costs must be raised in advance. Fundraisers and donations help the families who might not otherwise be able to afford this exciting opportunity.

Sixth graders are eligible to go to Space camp and they work to earn the money through fundraisers and donations to the program.

Partnerships are critical to this program and

many businesses and groups provide financial support, expert speakers, and mentors.

The school also welcomes magazine donations, in addition to reading the articles, children use them in a lot of other projects.

Members suggested that our chapter might be able to host children visiting the airport to see some of the building projects currently underway.

A motion was made to make a \$1000 donation to the school’s programs. An amendment was offered and approved to dedicate that money for EAA academy attendance. Discussion centered on the importance of our organization supporting educational activities and the significant value that this program provides to promoting a positive image of general aviation. A vote was called and the donation was approved. A check will be sent to Jill with instructions to use the funds toward sending children to the Oshkosh program.

The meeting was adjourned.

## **MAC COMMITTEES 3 NOV 04**

***BY: VIVIAN STARR***

The MAC 2020 Development Program for MSP was the primary focus for all Committees today. Northwest Airlines is supporting improvements and expansions that will include devoting all of the Lindbergh Terminal to NWA and affiliates while moving all non-NWA and affiliates to the Humphrey Terminal.

During Finance Committee discussion of the 2005 Operating Budget, Kathleen Nelson, spokesperson for Northwest Airlines, shared with Commissioners the difficulties airlines are having with \$50 per barrel oil prices. She presented numerous objections to 2005 proposed expenditures. For Relievers, she objected to the budget's inclusion of \$75,000 for consulting fees regarding Reliever Airports in 2005, saying "this must stop." She added that NWA has issues with all Reliever Airport projects that need to be resolved.

During the subsequent discussion by Finance Committee members, Commissioner Landy told Ms. Nelson that he was getting a conflicted message as to what NWA wants. On one hand they support spending on the 2020 Development Program, but on the other hand, their comments on the 2005 Budget send a different message.

Commissioners will be looking at potential use of PFCs (Passenger Facility Charges) as a source of funding some 2005 budget line items in an effort to keep airline costs down in 2005.

## **THE 2004 ELECTION**

***BY: VIVIAN STARR***

Several Minnesota races were of particular interest to Reliever Airport folks.

Representative Mike Beard won a second term to the Minnesota House where he is Chairman of the House Aviation Subcommittee. Mike has been a strong voice for General Aviation at the legislature.

Representative Andy Westerberg was also reelected. Andy was the sponsor of Airport Tax Relief in the 2000 legislative session and is another great supporter of Reliever Airports.

Unfortunately, I have one loss to report that may have a significant impact on Anoka County-Blaine Airport. Anoka County Commissioner Dave McCauley lost his bid for reelection. He has been one of the driving forces behind the County efforts to get development moving at ANE. His leadership and commitment to General Aviation will be sorely missed.



**FARNSWORTH ELEMENTARY AEROSPACE SCHOOL**

***BY: RICHARD WICKLUND***

The North Central Region Aerospace Education Association Newsletter for Fall of 2004 Announced on the front page that Farnsworth Elementary Aerospace School has been named A NASA Explorer School.

Following is the article:

Farnsworth Elementary Aerospace School received some special visitors from NASA Glenn Research Center to announce at an all school assembly that Farnsworth had been selected as a 2004 NASA Explorer School (NES). NES is a unique three-year relationship with NASA in which educators and students will have an opportunity to be involved in the excitement of NASA research, discoveries, and missions. NASA Glenn is a major participant in the three-year program.

The program works on three levels involving students, teachers, and parents in an effort to incorporate science, mathematics, and technology into education. Throughout the three-year period, Farnsworth School will refine an implementation plan, strategic plan, continue professional development, and incorporate students and parents into the learning process.



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