

WINTERMAIL

EAA CHAPTER 25

MINNEAPOLIS / ST PAUL, MN

MARCH 2009



Lou Martin, with the Planes of Fame Wildcat he flew to Newton, Iowa in 1995

Should Air France Pilots Speak French?

by Lou Martin

On any given day, hundreds of international flag air carriers are arriving and departing the congested airspace of Charles De Gaulle airport in Paris, France. The Pilots of these aircraft be they Japanese, German, Italian, Spanish or American are communicating with French air traffic controllers in the international aviation language of English. Some Air France pilots, however, routinely speak in French when *(Continued on page 4)*

Junk Bin Tester

Designer: Dale Johnson

Article by: S. Steve Adkins

While serving aboard the Polaris Submarine for one year, I learned the value of testing. But recently, I became more personally involved with testing ... the strength of the materials used to build the spar caps for my Hummel UltraCruiser. As you look at a 3/16 inch aluminum plate that will serve as the "spar carry *(Continued on page 5)*

Dale Johnson, working on the WWII CG-4A Glider Replica



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Koser's Comments



The Chili Feed, held on 7 March, was a success, with lots of food and conversation in the Bert Sisler Aviation Education Center. Multiple varieties of chili were provided, along with cornbread, salads, and desserts. Judging from conversations I overheard, I think we're all anticipating some spring flying, Young Eagle activities, and hangar improvements.

Our Executive Board met following the social time and discussed improvements to the

building, including electrical work, insulation of walls, and addition of a couple of south facing windows. We have some bids obtained by Ed Hansen from electrical and insulation contractors, which we will close in on as April approaches. Dan Carroll will look into window systems and get back to us with those options. A possibility is that we may form a member work crew to hang insulation.

A major addition to our building is the new sign displayed on the south facing outside wall. Images, shot by Pete Gavin, show some of us installing the sign. (Nobody fell off Jon's pickup bed, and we did have about 6 people standing out on the taxiway to insure that the sign was properly placed.) It should be noticed by all who taxi by.

Now, I see the need to emphasize the education aspect of our existence by bringing more Young Eagle candidates each month, and making their Young Eagle experience more educational. This could include developing some pre-flight or post-flight activities to familiarize candidates with: flight characteristics of airplanes, the airport environment, EAA Academy possibilities, or other ground school topics.



Still developing is a weekday excursion via motor coach (piloted by Ron Oehler) to Duluth and Superior to visit the Cirrus plant and the Bong center. Ron is working on getting cost estimates to us so we (Continued on page 6)

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The Leader In Recreational Aviation

This Month: Wed Mar 18th—Chapter Hangar—6 pm

Grill on at 6, Meeting starts at 7

Please bring something to grill and something to share

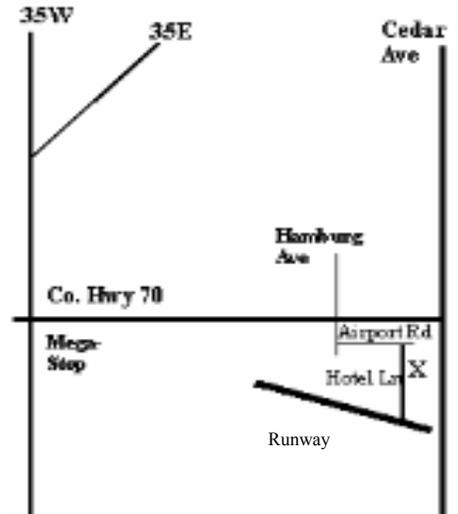
Program: Plans Night. Bring your plans, photos, and other project information for display. Contact John Koser if you plan on bringing plans. Please bring a card table if you are showing plans.

Sat Mar 21st—Young Eagles at Airlake 9am

Contact Bill Brown for more info.

Sat Jun 20th—Chapter 25 Annual Picnic, Chapter hangar, Airlake

Directions to 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. Please park on grass/snow between hangars.



EAA Chapter 25 Meeting Minutes

February 18, 2009

Presiding Officer: John Koser

Location: Pat and Mary Hoyt's Residence

Business meeting discussions

The following guests were introduced:

Paul & Ray Erickson Larry Matheny
Garlen Mikolichek Matt Simpson

Jon Cumpton is recovering from a skull fracture he received when he slipped on ice outside his home. We all wish Jon a speedy recovery.

Jeff Coffey is maintaining our website, EAA25.org. We are always looking for interesting stories for the site. If you have a project update or have a story to share, please send it to Jeff for posting.

Contact Pete Gavin if you would like to get on the distribution list to get our chapter newsletter via email. Members are encouraged to make this transition over the next year. Starting in January of 2010, the newsletter will only be distributed via email.

We are expecting between 4-9 kids for this month's Young Eagles rally. YE advertising packets were handed out to all members in attendance. Please hang the posters on community bulletin boards around your home. Bill Brown will be assigning people to post information at nearby libraries.

A treasurer's report was circulated. At meeting time our cash balance is \$7408.

John Schmidt gave a Scholarship Committee update:

We currently do not have any firm candidates for our High School scholarships.

Lakeville North and South High Schools have been informed of the scholarships.

We may award a second year scholarship to a past winner.

We are looking for candidates that we can sponsor for EAA Air Academy.

The committee is exploring the idea of sponsoring flight training for a teen or young adult.

Bert Sisler Aviation Education Center (Chapter Hangar) news:

Ed Hanson is spearheading an effort to explore the cost of insulating the walls of the hangar.

Jon Cumpton is overseeing the fabrication of a new sign for the south exterior wall, which was approved by the Board of Directors.

Future chapter activities:

The March Chapter meeting will be plans night. Bring your plans, photos, and other project information for display. Contact John Koser if you plan on bringing plans. Please bring a card table if you are showing plans.

Dr. Phil Sidell, one of our chapter sponsors, will be our guest speaker at the April meeting. Send medical questions that you would like discussed to John Koser.

We plan to visit the FCM Control Tower for our May meeting.

June will be our fundraiser kick-off.

Other news:

Lou Martin is current with his CFI and available for training or flight reviews.

Tim McCoy is selling his hangar at LVN.

MAC has announced that Jeff Nawrocki is now the manager of LVN.

Program

We viewed Pat Hoyt's Zodiac 601XL project.

Submitted by Craig Nelson

Should Air France Pilots Speak French?

(Continued from cover)

communicating with these controllers.

It may seem perfectly natural that French pilots speak French, when flying in their native country, but by doing so, they are in conflict with international safety directives and deprive non-French speaking pilots of forming a mental situational awareness of adjacent air traffic. Air France pilots who speak in French frequently go unchallenged by the International Civil Aviation Organization (ICAO) and other safety related organizations.

In 1944 the 185 contracting states of the ICAO agreed to adopt English as the Standard international air traffic control language. This agreement was designed to insure that flight crews and air traffic controllers, involved in international flight operations, are proficient in conducting and comprehending radio communications in a common language. Recognizing that following the end of WW II international air travel would rapidly expand member states realized that unfettered expansion of airline travel would be impossible, if each country attempted to control air traffic in their native language.

This agreement was met with some resistance by several non-English-speaking countries, especially France. However, recognizing the need for a common language individual country dissension quickly faded. Following this decision airline pilots and air traffic controllers enrolled in English speaking classes. In a surprisingly short period, it was encouraging to hear pilots and air traffic controllers from Japan to Europe issuing and acknowledging critical air traffic control directions in English. Although the English transmissions contained some interesting accents, the commonality provided a smooth air traffic flow and a mental situational awareness for both pilots and ground personnel. The standard use of English was even adopted by most foreign countries in their domestic flight operations.

Unfortunately, some Air France pilots frequently communicate with French air traffic controllers in French, even when the sky is crowded with pilots from other countries communicating in English. Recognizing the safety problem this practice created, Air France executives issued a directive ordering its pilots to speak English when communicating with French air traffic controllers. However, many Air France pilots ignored this order, stating that they wished to study it further. Speaking in the standard aviation language of English was part of what Air France officials called, "Prevention and Safety of Flight." In spite of the fact that this directive was intended to insure compliance with Annex ten of the ICAO Agreement, French language purists and French government officials criticized the directive, and it was withdrawn.

I understand the pride the many French pilots attach to their language and their desire to retain its use wherever possible. However, pride should be flexible when it is in conflict with ICAO Safety Directives. When the ICAO decided on the need for a common worldwide air traffic control language, they recognized that without it, safe and efficient control of air traffic would be impossible.

It is critical that all pilots and controllers operating within a given airspace hear and understand directions transmitted, not only to their own aircraft, but also to others in their immediate vicinity. Imagine the pandemonium that would occur in the skies over New York or Tokyo, if all the arriving and departing international flag air carrier pilots were attempting to communicate with air traffic controllers in their native language.

The contracting states of ICAO have pledged to enhance safety and their efforts in this pursuit are commendable. However, insuring that international pilots and air traffic controllers are proficient in English is not fully enforced. At present, many contracting states do not require that their pilots demonstrate English language proficiency when issuing an Air Transport Pilot Certificate. If the pilot is to fly international routes, acquiring proficiency in English is left up to the individual pilot or the airline of employment. The end result is that pilots and air traffic controllers of many countries, especially emerging third world states, lack adequate proficiency in English aviation phraseology.

Foreign pilots obtaining a U.S. Pilot's Certificate must demonstrate Basic English Proficiency or their certificate reflects an English language restriction. However, a foreign pilot may legally fly to any airport in the world, based on his foreign license, if the registration of the aircraft is from the same country as his pilot's certificate. Consequently, the pilot may or may not possess the English proficiency necessary to comply with air traffic control instructions. Although English proficiency by foreign pilots is improving, greater emphasis on reaching an acceptable international standard is essential.

In 1966, an Air India aircraft flew into Mont Blanc killing 117 people. Miscalculation by the crew and poor English phraseology by

(Continued on page 5)

Air France Pilots

(Continued from page 4)

the controller was suspected.

In 1981, a Yugoslavia airliner crashed in Corsica killing 180 people. One of the listed causes was imprecise language used by the crew and an air traffic controller.

In 1989, a B-707 crashed in the Azores Islands killing 144 people. One of the causes stated were procedural errors by the flight crew and air traffic control.

In January 1990 an Avianca B-707, after running out of fuel, crashed near Cove Neck Long Island killing 73 people. It was reported that the captain spoke very little English and the copilot used improper phraseology. Consequently, U.S. air traffic controllers did not realize the peril the aircraft was in until it was too late.

In 1995, a B-737 crashed in El Salvador killing 65 people. One of the causes of the accident was listed as confusion between the pilot and ATC.

In 1999, a Japanese glider pilot and a female Australian tow-plane pilot were killed in a midair collision. The Japanese pilot was warned of the impending collision, but according to reports, it was doubtful if the warning was understood. One of the post accident recommendations was that English competency standards be established for foreign pilots flying in Australia.

The problem with pilots communicating with air traffic controllers in French is not confined to France. My nephew who was a pilot with Mesaba Airlines stated that when on a flight from Detroit to London (Canada) a pilot was speaking in French when communicating with the air traffic controller. And when he requested the location of the French speaking aircraft, the pilot reported his position in French.

The above incidents are just a few examples of why it is important that pilots and air traffic controllers be proficient in transmitting and understanding critical radio communications in the common language of English.

The ICAO should place greater emphasis on insuring that pilots and air traffic controllers of all 185-member states possess sufficient proficiency in English. For pilots not proficient in English should have their certificates endorsed to attest to this deficiency. I also feel that flag air carriers should set a good example and resist the temptation of reverting to their native language when working with air traffic controllers in their home countries. I reported this non-compliance, with ICAO directives to FAA Headquarters in Washington, DC. In 1996, but my report went unanswered and the problem continues.

Junk Bin Tester

(Continued from page 1)

through" or you look at the 1/16 inch aluminum angle that will serve as part of the "spar cap", you begin to think, "My life depends on this part!" and wonder, "Have I been delivered true aircraft quality material or is it bogus material from some foreign country?"

Fortunately, Dale Johnson has designed and built a parts and material tester. No money was spent to build this tester. Dale used the tester to test my Hummel material including: the spar cap angle, spar carry through plate, hardware store angle, aircraft aluminum bar stock, standard aircraft rivet and blind or pull rivet. I predicted the failure point for each test specimen. It was very exciting to see each part fail close to my prediction. All rupture points were at or slightly beyond my prediction.

The tester was built to test the uncountable hand-made turnbuckles which Dale built for the Pietenpol. Also, he tested the drag and anti-drag wires. At the opposite end of testing a/c parts, Dale has used the tester to proof-test the tow ropes used by our glider club. Note: his testing of rope



(Continued on page 6)

Article written by:

Lou Martin, Lt.Col USAF (ret). He is the author of Wings Over Persia (which was rated the best aviation writing for 2004 by the Minnesota Aviation hall of Fame) and Close Encounters with the Pilot's Grim Reaper (revised in 2008). He spent 22 years as a pilot in the U.S. Air Force, five years as a captain for Japan Domestic Airlines, three years as a charter pilot in Iran and 19 years as a FAA DC-9, B-727 and B-747 inspector pilot. From 1992 to 1996, he was attached to the U.S. Consulate Office in Frankfurt, Germany where he traveled throughout Europe including two trips to Moscow. He lived in Germany for ten years, Japan for eight and Iran for three. He holds Airline Transport Certificates from the U.S., Japan and Iran, and has 19,000 flight hours. He can be contacted at 912-891-1250 or E. mail: pilotlou@aol.com.



Junk Bin Tester

(Continued from page 1)

found that a knot in the rope would fail at less than one-half the strength of the rope which indicates one should be sure to remove any knots from a rope. The Dale Johnson Tensile Tester has become well known and used in Britain. When Chris Bobka learned that builders in that country are required to proof-test their parts, he immediately pointed them towards Dale.

Dale built the tester from the multitude of parts and materials stored in his backyard workshop. A neighbor provided the heavy-duty, 1/4-inch by 7-foot construction steel which forms the frame for the test fixture. It has plenty of holes for rebolting the rig for different length parts. A 4-ton bottle hydraulic jack serves as the source of tension. A 3000 pound pressure gauge from an oxy/acetylene torch serves to measure the tension. A few pieces of large steel angle coupled with 3/8ths-inch threaded rod and two aircraft clevis tie rod terminals complete the fixture. Two welds were required to create a sliding fixture but clever use of additional angles and bolts could accomplish the same purpose without welding. The anchoring parts are generally in the 65,000 pounds tensile strength range, so their cross-section must be greater than the cross-section of your test specimen.

The first test specimen was made from a scrap from my 3/8-inch aluminum spar carry through plate. I spent considerable time cutting, grinding and polishing to have the precise cross-section and no abrupt changes in dimension (to avoid necking). This took too much time. Eventually, I stumbled on the idea to drill two holes close enough to create the desired cross-section. Then one merely uses a band saw to make cuts from the edge of the material to the holes. While testing, the specimen may begin to stretch or "yield". This stretching will result



Before ↑ After ↓



Koser's Comments

(Continued from page 2)

can fill a 54 passenger coach for the one day trip. This should be a fun and educational outing, on which spouses and friends would be welcome. When we hear more from Ron on costs, we'll present the idea to members at a monthly meeting.

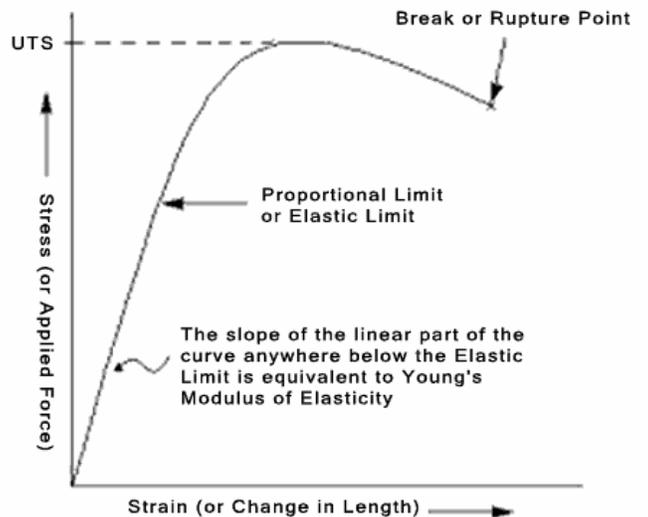
Plans Night is coming for the 18 March meeting. If you have plans for an airplane and want to display them, please consider also bringing a card table. We have some long tables, but may need the extra space.

Dr. Phillip Sidell is our guest speaker in April, and I'm still looking for members to email questions to me so I can pass them on in advance to Dr. Sidell. I'll forward them to him in a letter so he'll have some idea of our specific interests.

For our May meeting, Craig is working on scheduling of small groups to visit the tower cab at FCM following the earlier gathering at his company's pavilion. (Numbers in the tower cab are limited.) Stay tuned.

Hope to see everyone at coming meetings! Please put up your Young Eagle posters.

John



in a drop in indicated pressure while one is pumping the pump handle. I made no attempt to determine the yield point.

See the Table of Test Results for Aluminum Materials for the Hummel UltraCruiser on page 8.

(Continued on page 8)

Stuff for Sale/Wanted

For Sale: DRDT-2 Rivet Dimpler and table, all for \$275. Dimpler alone is \$355 new. Other tools & equipment too. Moving to Florida, must sell asap. David Maib [dmaib@mac.com] 612-202-6309

For Sale: 1948 Beech Bonanza 35. T.T.A.C. 2980, Engine 22 SMOH. Prop & all Accessories 22 since overhaul. New paint & leather interior. Tip tanks, dual controls, all new windows, cleveland brakes. Many mods. VFR radios. At KLVN. Asking \$48,000. Al Morphew 952-985-5910 612-961-1546

For Sale: 1973 Cessna 150L TTAF 3300, 700 SMOH. White w/blue stripe. Exterior 8/10, interior 8/10. Michael single Nav/Com radio, ModeC Xpndr. Fresh annual. Portable GPS included. \$18,000 firm, similar in trade-a-plane for 23-24. Gerald Mercier, gjmerci@aol.com 612/861-6921.

For Sale: 40' x44' hangar 32G at Airlake Airport. A/C building tools, many misc. parts. A/C oil & filter, welder/tanks, 1968 Cardinal wings & tail feathers. Call Phil & Betty Funk at 612-578-3017 for viewing.

For Sale: Hangar #30, 48'x50'—Winsted Municipal Airport 10D-40' Electric Bi-Fold door; Concrete floor; Mercury Vapor lighting; 11' x 13' Garage door. 320/834-2824 be35_33_captn@hotmail.com

For Sale: ICON IC-A23 VHF Airband Transceiver still in box never used. \$275. Peter Denny 763/529-5325

For Rent: Heated hangar space at KMIC. Space has good lighting and use of microwave, refrigerator, bathroom, lounge, and hot/cold running water. Rent dependent on type of A/C or use. Space comes with resident AP, IA, EAA technical counselor, and A/C welder. Call 763-494-6993 evenings.

Wanted: I am working almost daily on my Fisher project. Down the road I will need some instruments. This will be a VFR setup. Engine will be a Subaru. Let me know if you have something I might be able to use. Contact philschaffer@usfamily.net

For Sale: RV-6/6A project in Burnsville—pre-punched empennage and wing kits are complete. Right wing is jigged with the skeleton and main skins clecoed in place. All parts primed. Includes elec trim, wing Indg lts and AOA kit. \$5000 for all, but am on furlough from Mesaba and willing to negotiate. Chad Tarara ctarara@comcast.net 952-956-4614



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Chapter Events and Fly-Ins

Mar 18th Chapter Meeting at Airlake
Grill on at 6, meeting starts at 7pm
(see page 3 for directions)

Mar 21st 9am Young Eagles (Airlake)
Contact Bill Brown for current info.

June 20 Annual Picnic

Future meetings 4/15, 5/20, 6/17, 7/15, 8/19,
9/16, 10/21, 11/18, 12/16, 1/20, 2/17, 3/17

Mar 14 Rushford Mn (55Y) 8-1p

Chili fly-in 507-452-6888

Mar 16-17, 2009 St. Paul, Mn

Minnesota Aviation Maintenance
Technician Conference,
Crowne Plaza St. Paul River-
front, www.dot.state.mn.us/
aero, 800/657-3922, ext. 7181.

Apr 5 Dubuque Ia (DBQ) 8-12p

Univ. of Dubuque Flight Team fly-
in bkfst 815-757-5357

Apr 25 Hibbing Mn (HIB)

Chili feed fly-in www.eaa996.org

May 1-3 Brainerd Mn (9Y2)

Mn Seaplane Safety Seminar
Cragun's Resort on E. Gull Lk.
www.mnseaplanes.org

May 2 2009 Bloomington Mn

Minnesota Aviation Hall of
Fame. Ramada Hotel (old
Thunderbird). Reservations

will be available starting in
January. Send an e-mail mes-
sage with your name and ad-
dress to:
nallard@unitelc.com.
Make sure the subject line reads
"Hall of Fame Mailing."

May 2-3 Anoka Mn (ANE) 10a
100th Anniversary of the 1909

Gnome Omega rotary engine

3 runs each day at 11am, 1 & 3pm.

651-291-7925 Steco1911@aol.com

May 16-17 Blaine Mn (ANE)

Blaine Aviation Weekend
Pancake bkfst, hangar dance
612-940-0971

June 21-27 Duluth Mn (KDYT)

41st annual Cessna 170 Assoc.
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July 18-19 Eden Prairie Mn (FCM)

MN Air Expo, www.wotn.org

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Junk Bin Tester (Cont'd from page 6)

Specimen	Tensile Strength (psi)	Predicted Break (psi)	Actual Break (psi)
Spar carry through ... 2024-T3 plate	64,000	1530	1500+
Fittings ... 2024-T4 bar	63,000	523	750
Spar cap angle. 6061-T6	42,000	720	900
Cheap Hardware store angle	11,000 ?	583	550
3/32nd rivet (two in pattern used on rib)	38,000	384	500
3/32nd rivet (one in shear)		186	200
Avex 1682-0412 High Shear 1/8inch Pull Rivet (Alum with Steel man- drel)	210 shear	165	200 edge tear-out



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