

WINTERMAIL

EAA CHAPTER 25

MINNEAPOLIS / ST PAUL, MN

APRIL 2015

C-133 Cargo Compartment Awash

in Explosive Jet Fuel By Lou Martin



I spent five years (1965-1970) flying Douglas C-133 combat cargo support missions to South Vietnam, generating 169 combat flight hours. My standard course plotting for these flights was Dover, AFB, DL, Travis AFB, CA, Hickam, AFB, Hawaii, Wake and Guam Island and Kadena Okinawa.

After landing in Kadena, I would visit the base barbershop for a haircut, shave, shampoo, manicure and boot shine. The barber and manicurist would be young Japanese females while the shoe-

(Continued on page 4)

How Many Homebuilt Aircraft in Chapter 25?

By John Koser

An Opportunity: At the time of the annual October banquet in 2014, Bert Sisler, our first president, designer of airplanes, conveyer of excellent aeronautical advice, and benefactor to uncounted Chapter 25 members, raised the idea that it would be interesting to assemble a list of all the aircraft built by members since the beginning of the Chapter.

Bert's suggestion hit a nerve, and I offered to work on the project. It started when numerous members provided me with lists of aircraft and builders from many years ago to the present. I am grateful to Bert, Norm Tesmar, and numerous

members who have provided information. The immediate source of information I consulted was our most current Chapter 25 Roster, which has lots of information about completed and under-construction airplanes.

Current Roster Information: Our roster listing homebuilt aircraft is coded as to Status, which includes four categories:

Building (under construction)

Experienced (previously built and flown)

Flying (currently flying)

Plans (plans in hand and presumably considering construction).

(Continued on page 6)

Craig's "Flight Lines"

P2

April Meeting/March Minutes

P3

Final Approach Trivia Quiz

P3

For Sale/Wanted

P7

Flight Lines



—from Craig Nelson,
EAA Chapter 25 President

It's a busy week preparing for the Minnesota Pilots Association's "Great Minnesota Aviation Gathering" (GMAG) which will be this Friday and Saturday. Chapter 25 will be represented there and participating in several activities. The Pietenpol Builders Group will have their nearly completed fuselage on display in an exhibit booth that we will share with Anoka

EAA Chapter 237. Chapter members manning the booth will have fun talking about the Piet build process, Chapter 25 activities, and the EAA membership experience in general. On Friday evening, I will be moderating a meeting of Minnesota EAA Chapter Leaders where we will share information about our chapters and learn from each other on how to have a vibrant, active chapter. I look forward to this conversation. By the time you read this the 2015 GMAC will be history but I'm hopeful that you had a chance to attend the event and found it worthwhile.

I'm embarrassed to say that remembering names is not one of my strengths. Gordon Duke has come to my rescue by printing nametags for all chapter members which will be stored at the BSAEC. These were available at our last meeting and it was great to see them being worn. Let's make a point of putting them on when we have meetings and events at the hangar. It is particularly helpful to guests and new members who are trying to integrate into the chapter. Thank you Gordon for making the tags!

Mary Hoyt is busy planning our "Family Day" celebration on June 13. We are asking chapter members to fly in their aircraft with a particular focus on the homebuilders bringing their planes. Rides will be given to those who want to fly. We want this to be a special celebration of our homebuilding history with a "Back to Our Roots" theme. A pig roast will round out the event and help make it special. Stay tuned for more details.

John Koser, Bill Brown, and I spent a recent Thursday morning mounting airplane pictures in the BSAEC. These are special photos because they document aircraft that have been built by Chapter 25 members. The mounting system John has developed works great and we will add to the collection as we receive more photos. If you have built or restored a plane please send a picture of it (with you in it) to John so it can be included in the "Home Builders Wall of Fame" in the hangar. Let's celebrate our homebuilding history!

Our April meeting at the BSAEC will feature Stein Bruch, owner of SteinAir, Inc. discussing ADS-B Solutions for homebuilt aircraft. This is a very hot topic these days as the FAA mandate to have ADS-B Out capability installed in aircraft that fly in Mode C airspace by 2020 looms over our *(Continued on page 7)*

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On FINAL



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This Month: Wed Evening Apr 15th—BSAEC at Airlake

Grill on at 6:00 pm, Meeting at 7:00 pm

Please bring something to share: pre-cooked brats, hamburgers, deli salads, chips, cookies, utensils, soft drinks and water. We also need a couple volunteers to cook!

Program: Stein Bruch, owner of SteinAir, Inc. will discuss ADS-B Solutions for homebuilt aircraft. This is a very hot topic these days as the FAA is mandating ADS-B Out capability when flying in Mode C airspace by 2020.

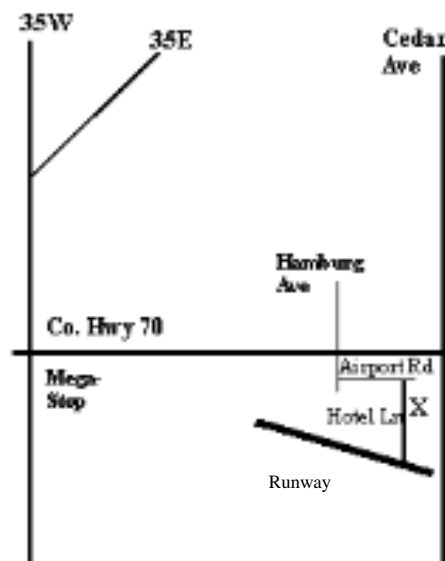
Saturday, Apr 18, May 2 & May 16: Young Eagles Contact Kris Olson, pilots/ground crew needed: 651-675-6826, ksimpson2@yahoo.com

Saturday, April 25: MN Aviation Hall of Fame Banquet

Wednesday, May 20: EAA Chapter 25 May Meeting

May 30-31: Discover Aviation Days, Anoka Airport

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 Minutes of the March 18, 2015 Chapter Meeting

The meeting was called to order by President Craig Nelson at 7:00 pm at the BSAEC. New name tags were available for all members who have paid their 2015 dues. These name tags are to be left at the BSAEC so they will be available at each Chapter meeting. Lt. Col. Lou Martin informed us that he has been diagnosed with Parkinson's disease and then led us in the Pledge of Allegiance.

Guests - Craig asked if there were any guests. James Leverton introduced himself as the new Airlake FBO Manager. James has owned or is familiar with a KR-2 and a Loehle 5151 Mustang. Richard Hedeem told us he is a manager with Endeavor Air and is a former flight instructor. Jay Jenkins owns a Vans RV-8 and Jay Davidson is an attorney.

BBQ and Pot Luck – This month we had grill problems and ran out of propane. Craig again asked for volunteers to coordinate food each month.

Homebuilt Honorary Wall Display - Craig and John Koser are working on a wall mount display of each airplane built by members. John asked all members who have built airplanes to send him a digital picture of their airplane, ideally, a picture of airplane and builder. This is to celebrate member achievements.

Young Eagles – Kris Olson reported that we have kids scheduled for our event this Sat. (3/21). Kris said that we will be conducting ground school regardless of weather. Nonetheless, the weather looks favorable now so pilots and ground crew are

needed. On May 2, she expects to give rides to 75 girls at the Aviation Careers for Women Day. Pilots and ground crew are definitely needed for that event. The Boy Scouts are planning a huge jamboree at the Buffalo Airport on May 29 – 31. They will be giving scouts an opportunity to earn their aviation merit badges. They are looking for Young Eagles pilots. Contact Kris if you can participate in any of these events.

Ch. 25 Annual Membership Renewals – To date, 30 of 131 members of record have yet to return their membership update forms along with their dues. Members that have not returned their form and dues are encouraged to do so as soon as they can. EAA 2015 picture calendars are still available for \$10.

Finances – On behalf of Gordon Duke, Craig reported that we have \$13.7K in checking and \$10K in savings with manageable normal liabilities, so the Chapter finances are in good standing.

(Continued on page 8)

Final Approach Trivia Quiz

By John Schmidt

Which famed American has “Call me Trim Tab” on his gravestone?

Answer on page 6

C-133 Cargo Awash in Explosive Jet Fuel (From Page 1)

shine boy would be a Japanese male. This entire routine cost one dollar and tipping was not recommended. On one of these missions, I delivered a load of cargo to the Tan Son Nhut Airport in Saigon and was instructed to stand by for my return load, a battle-damaged F-4 jet fighter.

We lowered the rear cargo ramp, allowing aerial port personnel to load the disabled jet, which was in three wooden dollies. I asked the Air Force sergeant in charge if the jet was purged of all fuel. His response, "Absolutely, colonel," pointing to bright yellow tags hanging from the F-4 stating, "Purged of all Fuel." I departed the Saigon Airport around sunset and took up a heading for Clark Air Base, four hours to the east.

The empty F-4 weighed only 30,000 lbs., so my initial level-off altitude was 21,000 feet. As I approached the East Coast of South Vietnam I could see numerous lightning flashes over the South China Sea, but they seemed widely dispersed so by employing airborne weather avoidance radar I thought I would have no problem in steering around them. However, by the time we were climbing through 19,000 feet, the night sky was embedded with violent thunderstorms and I was picking my way through towering cumulus clouds and flashes of lightning, when suddenly, my cockpit radar screen gave off with a bright flash and went blank. I was now forced to avoid the worst of the storms by manually steering around the brightest lightning flashes. I told my crew, "Tighten your safety belts and hang-on" as we leveled off at 21,000 feet.

About this time we detected the pungent odor of jet fuel so my reserve flight engineer, holding on to the sides of the bulkheads to steady him from the turbulence, headed for the cargo compartment to investigate. A few seconds later I received the following call on the inter phone, "Colonel, we have a real problem. Fuel is spewing out from that F-4 and there is about one quarter inch of JP-4 covering the cargo compartment floor and sloshing back and forth from the turbulence." This was not good news! We were picking our way through numerous thunderstorms, our airborne radar was inoperative, and the cargo area, being a sealed compartment, was awash with explosive jet fuel. One spark and we would disappear in one big bright flash over the South China Sea and the Air Force would be faced with another C-133 mysteriously disappearing.

A subliminal thought ran through my mind that if we blew up, it would be back to "square one" in investigating the mysterious C-133 crashes and I would not be around to tell them what really happened.

I told my copilot to take over control of the aircraft, do his best in avoiding the thunderstorms and start an immediate descent to 10,000 feet. I then instructed the flight engineer to regulate the cabin pressure altitude, which was now around 8,000



Lou in Vietnam

feet, to as low a setting as possible because the higher cabin altitude was obviously causing the residue fuel in the F-4 to be ejected from unsealed fuel lines. (It was apparent that I had been lied to regarding the jet being purged of all fuel, but that was not my immediate concern). It was imperative that we descend to a lower altitude, get rid of the fuel sloshing around in the cargo compartment, avoid the use of electrical components (which might generate a spark) and pray we are not hit by lightning! (I was sure the Pilot's Grim Reaper was behind this entire episode and was eagerly monitoring its outcome).

My copilot asked if he should obtain ATC clearance before descending but I told him no, "we do not want to key the high frequency radio or actuate anything, including opening the rear cargo ramp, which may cause a spark." With that, my navigator and I grabbed oxygen masks, plugged them into walk-around bottles and headed for the cargo compartment.

After descending the cockpit stairs, I was shocked, and somewhat frightened, by the scene that unfolded before me. Jet fuel was spewing out from several open fuel lines in the folded wings and fuselage of the jet, and the cargo compartment floor was flooded with highly volatile fuel, swishing back and forth in tune with the rocking aircraft. To add more drama to the potential explosive scene lightning flashes could be seen through the small round windows lining both sides of the cargo compartment. My load master, and extra flight engineer, were wearing oxygen masks plugged into portable oxygen bottles and busily soaking up the spilt fuel. The load master was sweeping puddles of it into pools so they could soak it up with the use of a large deck mop. When the mop could hold no more, they squeezed its contents into a bucket with a foot-activated wringer. I admired their sterling effort, but it appeared that they were just keeping pace with the amount of fuel pouring out from the F-4. I felt that

(Continued on page 5)

C-133 Cargo Awash in Explosive Jet Fuel (Continued from Page 4)

the situation was so critical that the smallest spark would ignite the whole mess.

I returned to the cockpit while my navigator remained in the cargo compartment to assist in sweeping the fuel into pools. I told my copilot to reduce the engine power to idle, assume a nose high attitude and increase the rate of descent. (I wanted the aircraft to assume a high angle of attack to force the fuel to flow toward the rear of the aircraft). I returned to the cargo compartment and was pleased to note that the amount of fuel spewing out from the jet was now just a trickle. In addition, the nose high attitude had forced the spilled fuel to pool in the rear of the cargo compartment. (I now thought we had a chance of solving the problem before the Pilot's Grim Reaper could find a way of blowing us up).



Lou Martin next to C-133 he flew to South Vietnam

When a bucket was full, I would carry it up the slanted rear cargo ramp and dump it out one of the open pressurization outflow valves. With our eyes and feet burning, from the effects of the fuel, we continued this process until all the fuel that could be soaked up was dumped overboard and fuel was no longer being ejected from the F-4 jet. We congratulated each other for still being alive and headed for the cockpit where we would be able to breathe without the use of an oxygen mask.

When back in the cockpit I noted that we were now flying at 10,000 feet in smooth air, with a cabin pressure altitude of zero and the line of thunderstorms many miles to the rear. It appeared that we would survive. However, my boots were soaked with jet fuel so I took them off to let my feet dry out. My crew members that assisted in the cargo compartment clean up did the same. My copilot asked if we should inform ATC with our high frequency radio that we were flying at such a low altitude, but were otherwise OK. I said, "No, the cargo compartment is still not fully dried out and still reeked of fuel fumes and I don't want to take a chance on the radios creating a spark, as fuel vapors are more dangerous than liquid fuel." Therefore, we just kept on flying toward Clark AFB and would contact them when we were within VHF radio range.

Fortunately, we had departed Saigon with excess amounts of fuel so remaining at 10,000 feet was not a fuel-burn problem. When about 75 miles from Clark, I called the control tower on VHF. They were surprised to hear from us, as they had not

received any updates on our flight since shortly after we departed Saigon and had reported us missing and presumed lost. They were also surprised to learn that we were flying at 10,000 feet. I told them that I would explain everything after landing. We made an uneventful night landing and after shutting down the engines, a maintenance officer came to the cockpit and said, "Colonel, I think you have a fuel leak. I can smell fuel fumes in the cargo compartment". My answer, "No kidding, I guess we will have to check it out."

I demanded that the F-4 be off loaded and stated that I was not carrying it any further. I submitted a report of the incident, outlining how close we had been to becoming another C-133 accident statistic, but never received a reply. (I accepted the incident as the perils of war, and let it go at that). We opened the side cargo door and the rear cargo ramp and left them open for 24 hours. The following day, with our radar problem corrected and the fuel fumes evaporated, we departed Clark AFB and three days later were safe and sound in Dover, AFB Delaware.

The above is an excerpt from Lou Martin's book, "Close Encounters with the Pilot's Grim Reaper." Lou can be contacted on: pilotlou@aol.com



Chapter 25 Homebuilt Aircraft



Continued from page 1)

Thanks to our roster and a lot of help from long time members, a very large collection of names and aircraft was developed, which has now been dropped into an Xcel spreadsheet showing 180 airplanes constructed by members since the formation of the chapter.

In the list that's being developed, my assumption is if the airplane is tagged as either "Flying," or "Experienced," it has been flown following construction, but "Experienced" probably indicates an earlier time.

Hangar Display: The Chapter 25 hangar walls are finished in plywood, which allows easy hanging of framed pictures. The current project goal is to obtain as many images of aircraft built and flown by Chapter 25 members, then create a permanent display.

Project in Progress: A source of 8 by 10 inch frames has been found, and some basic woodworking has been done to allow displaying a very large number of framed images. Cur-

rently, nine or ten of them are hanging in a large linear frame on the south wall of BSAEC, with more to come.

The picture of your homebuilt, completed and flying aircraft will be framed and become part of the display. To make this happen, email to jfkoser@comcast.net an image of your homebuilt aircraft, once it has been test flown. Please include the date of first flight.

When your email arrives, I will

- Have the electronic image printed in 8x10 inch format,
- Frame the picture, and
- Hang it with the group now residing on the south wall of BSAEC.

Currently, the labeling system isn't ready, but when it is, each image will have a label showing: Builder's Name and Date of first flight (if available). I am anxious to receive more pictures of completed aircraft from those who have built them along with the date of the first flight.

Thanks!

—John



Answer to Final Approach Quiz (See page 3)

The engineer [Buckminster Fuller](#) is often cited for his use of trim tabs as a metaphor for leadership and personal empowerment. In the February 1972 issue of *Playboy*, Fuller said: Something hit me very hard once, thinking about what one little man could do. Think of the [Queen Mary](#)—the whole ship goes by and then comes the rudder. And there's a tiny thing at the edge of the rudder called a trim tab.

It's a miniature rudder. Just moving the little trim tab builds a low pressure that pulls the rudder around. Takes almost no effort at all. So I said that the little individual can be a trim tab. Society thinks it's going right by you, that it's left you altogether. But if you're doing dynamic things mentally, the fact is that you can just put your foot out like that and the whole big ship of state is going to go. So I said, call me Trim Tab. —Buckminster Fuller

The official newsletter of the [Buckminster Fuller Institute](#) is called "Trimtab"



Stuff for Sale/Wanted

For Sale: 2001 American Champion 7GCBC. IFR with Garmin 430 stack and 496 cross feed. Fully equipped, one owner airplane with 560 hours TT and no damage history and in excellent condition. 160 HP Lycoming O320. Call Jon Cumpton at 612-859-1483.

Airlake Hangar Space Available Chapter 25

- O Aircraft owner will need to join Chapter 25
 - O A hangar donation of \$125/mo is customary and appreciated
 - O Preference is given to homebuilts in the final stages of construction
- For more information, contact chapter officer (see page 2)

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.

Flight Lines (From page 2)

heads. Our June meeting will be a project visit up to Anoka-Blaine airport where we will look at a restoration of a BT-13 Vultee Valiant WWII trainer that Dale Johnson is working on.

Finally, we continue to struggle with closing out our membership renewal campaign. There are approximately 30 members on our roster that have not renewed for 2015. These individuals will be getting a reminder letter. Please help us close the books on this effort so we can publish the roster and put the dues collected to good work supporting Young Eagle activities, college scholarships, Air Academy scholarships, and covering our chapter operating expenses.

Keep the dirty side down and I will see you at the BSAEC on April 15.



Next Chapter Meeting: Wed, May 20

Young Eagle Events: Apr 18, May 2 & 16
 contact Kris Olson (see p2) if you can volunteer

Aircraft Insurance and Hangar Insurance



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 Maple Grove, MN 55369

EAA Chapter 25 March Meeting Minutes

(Continued from page 3)

Piet Project Update – Greg Cardinal reported that good progress is being made on the Pietenpol Air Camper. The wings have been varnished and we are working on installing the landing gear.

Member Teaching – Steve Adkins reported that he has been teaching an individual who reached out to Ch. 25 for instruction on structural riveting.

Upcoming Events – Craig announced upcoming Ch. 25 events. The Piet Builders plan on displaying the Pietenpol at The Great Minnesota Aviation Gathering on April 10-11 at the Golden Wings Museum at the Anoka Co. Airport. Chapter 25 will have a booth staffed by Ch. 25 members who are bringing other aircraft building demonstrations. At our April 15 Chapter meeting, Stein Bruch from Steinair will discuss ADS-B Solutions for Homebuilts. A visit to Dale Johnson's project at the Anoka Co. Airport is planned for the May 20th meeting. On Saturday, June 13, a Back to Our Roots Ch. 25 Family Day Fly-In and pig roast is planned. For the June 17 Chapter meeting, a presentation about the Fairey Gannet is planned. Lots of exciting activities are planned for us so put these dates on your calendars.

Presentation – Bob Styer arranged to have Allen Kraemer, a Manufacturing Application Manager at Stratasys attend to demonstrate and explain how 3D printing is facilitating a revolution in the parts manufacturing process. 3D printing is the process of using computer generated placement of thermoplastics and photopolymers to build molds for manufacturing parts, layer by layer. The advantage is that facsimiles can be generated much more quickly than traditional aluminum or steel molds to test part effectiveness. It is currently being used in many manufacturing applications. Bob, his daughter Melissa, and Allen brought a small 3D printer and demonstrated the making of a part while they presented.

Member Jeff Coffey brought the home built 3D printer he developed from scratch (what else would you expect) with his daughters. Jeff demonstrated how he and his daughters had fun learning about 3D technology and developing a small scale 3D printer together.


Respectfully submitted,

Kim V. Johnson,

Secretary and Membership Coordinator




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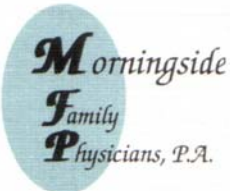
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