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Winds Aloft

EAA Chapter 790 Lake in the Hills, IL 790.eaachapter.org

September Chapter Presentation

Paul Sindberg; ***Transitioning to the 787***

In This Issue

Paul discussed his transition to the Boeing 787 Dreamliner. Some aspects of the Dreamliner mentioned are:

Most of the plane is Carbon laminate with aluminum only on the leading tail and wing edges which allows for less expansion and contraction of the fuselage, thus longer lifetime usage.

Cabin atmospheric pressure is less than traditional construction and humidity is circulated thru out the aircraft.

Dual Lithium Batteries-break away function in case of overheating

Gust Suppression-smoother riding

Full electric verse hydraulic Breaks

All electrical runs off of APU and Engine generators

There are several electrical buses with various voltage outputs

APU has (2) 225 KVA Electrical output. Engines are (2) 225 KVA output per engine.

APU can start, and routinely does, start both engines at the same time. Takes three carts to start without APU.

Fly by wire controls

Numerous sensors which monitor engine and other major component operations

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SEPTEMBER FLY OUT

September 16 fly-out to Chuck and Susan Binzel's

By: Rich Oleszczuk

The weather on Saturday cooperated nicely, temperatures in the mid 80's and a light breeze from the south. Perfect weather to have a lunch at Binzel's home in Bristol, WI. Chuck and Susan have a "flag" lot, so named because of the long, slender strip of land resembling a flag pole that extends to a rectangular main lot. Perfect for a 2000' N-S grass landing strip!

The strip is not on sectional charts or in the GPS database, but it does appear in the ForeFlight app as WI95 and is located on the west edge of Kenosha Regional Airport's class D airspace. So, flying into WI95 a call to the Kenosha tower is needed. The final approach fix (FAF) for the ILS/instrument approach to runway 7 is about one mile SW of Binzel's runway. Chuck said that if the weather requires an instrument approach into Kenosha, he can request the ILS to rwy 7 and if he can see his house at the FAF, he can cancel IFR and land at home. Kind of like your own personal approach.

Thirteen people flew in on six airplanes:

Paul Ranieri and Ole Sindberg in Paul's **Glastar.**

Lon Danek and Peter Lind in Lon's **Cessna 172.**

Tom Solar and James Tan in Tom's **Cessna 172.**

Dale and Trudy Medendorp in their **Zenith CH650.**

Tom and Joyce Jackson in their **Zenith CH701 STOL.**

Rich Oleszczuk, Mick Petrie and Candi Wang in Rich's **Piper Cherokee.**

Also in attendance were Bud Herod, Don Jenerick, Clyde Ericson and of course our hosts Chuck and Susan Binzel.

The grilled burgers were excellent and our hosts were gracious; thanks Chuck and Susan!

Aviation Challenges

Presented by Ole Sindberg

Last month we had Challenge no. 4 about an ILS approach with some unusual glide-slope indications and events. The original text is shown below.

There were several responses, but none were correct. At the last meeting I referred to this, and I am summarizing my remarks as follows:

1) The B-727 auto-pilot is perfectly capable of intercepting the glideslope from above – even with an initial high rate of descent.
2) There were no failures of airplane or related systems – everything worked as designed
3) The pilots did not cause this – they made no errors in programming the auto-pilot or cause the higher than normal altitude as the ILS was intercepted.
4) ATC erred in not getting us down to a normal glideslope intercept altitude at the proper time – we were about twice as high AGL as we would normally be
5) The glideslope indications did not make sense, they were not what we expected for the situation we were in

It is my hope that given this additional information, that somebody will figure it out.

Challenge #4

This challenge is primarily aimed at pilots who know a thing or two about instrument flying.

The following actually happened to me many years ago while flying as co-pilot on B-727's, but it could just as well have happened while in a light airplane on instruments.

We were going to some place in Michigan, I think it was Grand Rapids, but I am not certain. Weather was solid IMC with low ceiling but otherwise OK. It was the captain's leg, and the auto-pilot was on and flying the airplane. We were being vectored for an ILS approach, however, descent clearances were issued late, and as a result we were high on the approach – actually about twice as high as we would have liked to be. We were still a couple of miles from the Outer Marker – coming down fast (like a suitcase full of sash weights) – aiming to intercept the glideslope from above, when all of sudden the glideslope moved rapidly towards center - the captain's and my glideslope indications were identical. The autopilot was armed for the ILS, and in the next maybe 20 seconds the airplane was subjected to severe oscillations in pitch as the AP attempted to maintain the glideslope. It was not working, the glideslope indications did not make sense, and it did not take long for the captain to disconnect the AP and execute a go-around.

Another approach followed; this time everything worked as intended, the descent clearances was timely and we were at the proper altitude at the Outer Marker, and the rest was routine with a normal landing.

So here is the challenge: What really happened – what was the reason for these severe oscillations on what should have been a routine auto-pilot coupled ILS approach?

As before please send your response to Ole at oleeva@sbcglobal.net. First correct responder will get a ride in my airplane or free beer after the next meeting where we both attend.

Keep the blue side up

Ole

CHAPTER MEMBERS

Ted Lipinski

I was born and raised on the northwest side of Chicago, in the Jefferson Park area. I attended Weber High School and graduated from Loyola University with a BBA. I worked for Swift and Company in Chicago, Indianapolis, and Lexington, Kentucky until 1970. I returned to the Chicago area and was employed as a financial advisor at Merrill Lynch for 33 years. When I retired I was a Senior Vice President-Investments.

In 1976, a friend of mine had an airplane, and I would frequently go flying with him. (He was a trader on the Options Exchange, and we both worked in the Chicago Board of Trade Building in the Loop.).

I obtained my private pilot's license in 1976, at Elgin Airport, and my instrument rating in 1981 at DuPage County Airport. I was in a partnership with a friend in a 1979 Turbo Arrow for several years. We sold that airplane, he lost his interest in flying, and I wanted an airplane with a higher useful load. In 1984 I bought my present airplane, a 1979 Piper Dakota.

Being a product of the Cold War and the Cuban missile crisis, I have always had a fascination with Russia. In 1996, through Migs, Etc., I went to Moscow, and flew a Russian military jet helicopter, three flights in an L-39, and a supersonic flight in a Mig 29---in which I performed a tail slide and landing. What an experience! I returned several years later to Moscow with our son to fly a Mig 21.

In 1997, I flew to Mesa, AZ, and did three flights in a Lockheed T-33.

In 2000, through the same company, Migs, Etc., I went to Cape Town, South Africa, and flew several flights in a British jet---the Hawker Hunter. (On the flight to Cape Town, I had a chance to sit in the jump seat on a Boeing 747 SP, which included descending, touchdown, landing and parking. I could have gone straight home after that and been happy!)

I have flown to Canada more than 20 times on fishing trips with family and friends. I retired in 2003, and we spend our winters in our home in Scottsdale, AZ. In AZ I joined a group called the Flying Samaritans, and I fly doctors and medical personnel to a clinic in Mexico, located on Baja Sur. I have flown approximately 25 of these Mexican trips across the Sea of Cortez to the clinic.

I have been married for 51 years to my wife, Martha. We have two sons and three grandchildren. In addition to flying, I enjoy photography, fishing, traveling and bowling. (I rolled a 300 game in league several years ago.)

FYI I keep the airplane in Scottsdale, at Scottsdale airport, where av gas is $7.19 a gallon, but parking is $35 a month. Go figure! They really cater to jets. (I had air added to a tire, and I received a bill for $114.)

Chapter Members

Nice Plane! Who is that youngster? :)

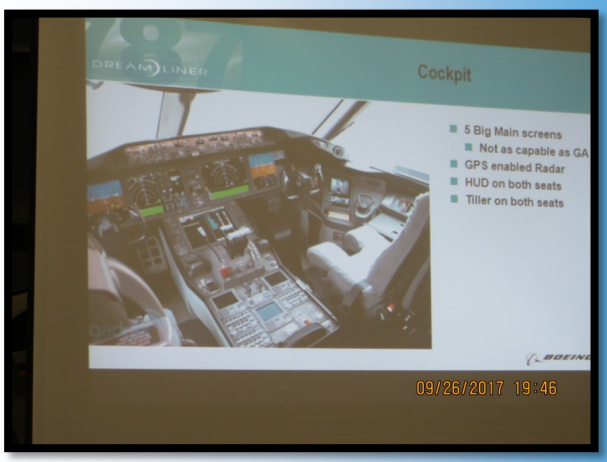
EAA biography. Clyde Ericson EAA 87066

I got involved with EAA in 1962 when I joined EAA Chapter 13 in the Detroit area. A good friend was restoring an Aeronca K and let me use his garage to start building my Stits Playboy SA3B. In 1967 I moved to Arlington Hts., IL and I brought my Stits project with me. I got a job as an Industrial Engineer for United Airlines in their Line Maintenance Dept. The Stits project got put on hold when I heard that UAL was buying a lot of B737s and would be needing pilots. Since I only had my private license I immediately started working on my pilot ratings and soon had my commercial, instrument and flight instructor ratings. In 1969 with only 850 hours of flying time I got hired as a B737 S/O. In 1980 when my son Todd was 13 years old he talked me into finishing the project. His goal was to solo the playboy when he was 16. He was ready when he was 14 so we joined Sky Soaring where he soloed a glider at 14, I did not want him to do anything illegal. Last December 13th my grandson soloed the playboy on his 16th birthday out in Mojave CA where the Stits is now based near by. It's become a family affair. This year was my 55th year attending the EAA convention. My 1st year was at Rockford in 1962. As you can see EAA has played a big part in my life as well as my family.

Transitioning to the 787

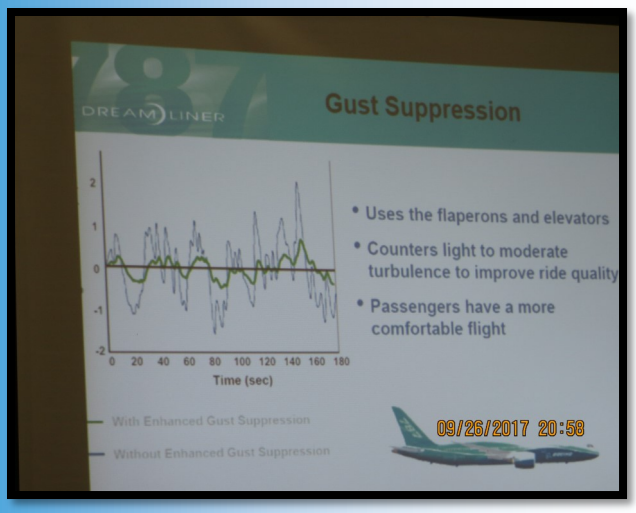
(Continued from page 1)

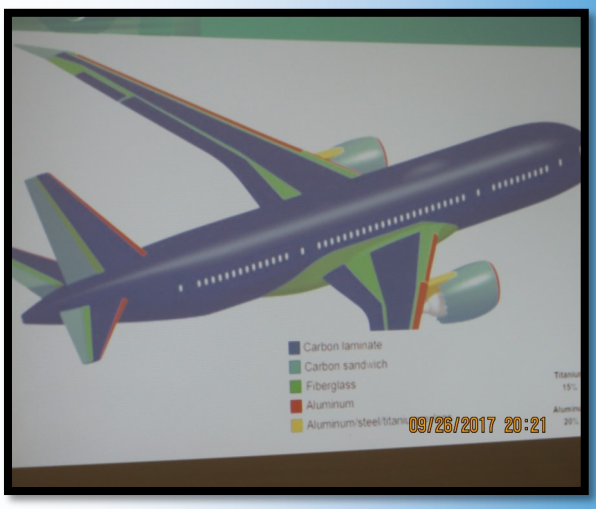
Computer language is common core. IPad is used as a backdrop for easier zooming in and out of screen and are easier to use. All manuals and correspondence are on iPad. Wing tips flex to 15 ft. at Max load.



All fuses can only be reset by technicians and are virtual.

Communications is via text messages automatically sent to cockpit for reply. No voice com required. We use a technology called CPDLC.





No paper copies aboard. All flight plan, SIDs, STARS and airport configurations are available for loading on any of the five screens.

All cockpit and passenger windows are larger.

American currently fly's the 787 to seven international cities from ORD. Flight time can average fourteen hours. Some flights require 3 others 4 pilots.

Very intuitive flying aircraft and one of the easiest Paul has flown.

Write up by Tom Solar

OCTOBER FLY OUT

And then we have a fly-out on the calendar October 21st. We used to fly to Janesville for breakfast quite often. But the restaurant there has been closed for quite some time. It is not expected to reopen till early next year – I am told. However, there is a nice restaurant at the nearby Glen Erin Golf Club – it is only about a half mile from the Jet Center. We could walk that far, or bicycle – or the Jet Center will run us over there.
The restaurant does not open till 11:00 AM, so let us meet at Janesville Jet-Center on the 21st at 10:30 – 10:45 AM, and proceed to the Glen Erin Golf Club. They do not serve breakfast, so the menu is a lunch menu. If you are driving there, the address is 1417 W. Airport Rd. Janesville.
Follow this link for menu gleneringolf.com
As before – if weather does not cooperate, plan B is to meet at the Colonial restaurant in Crystal Lake at 9:00.
Call or mail me with your attendance plans, or if you have or need seats.
CU there – or there.
Keep the blue side up.

Ole

847 639-5408

More pictures from September Fly Out

Chuck's 177 at home

Dave Morrow shining the 170s' Cowl at LITH

ELECTRICS UPDATE

Wright Engineering is designing a short haul all electric aircraft for Easy Jet Discount Airways. Targeted date is 2027. Currently Easy Jet Airways has purchased 60 Electric tugs for aircraft. The electric tugs are controlled by one person. They are also partnering with Safran to use hydrogen engines while on the ground . Easy jet states 4% of their fuel is used to taxi out and back from the gates.

Safran just signed a partnership with Cellla Energy for developing a fuel cell engine. Cellla's innovation is placing the hydrogen in a solid state for storage and then heating it at a moderate temperature to convert to gas. This allows for safer and lightweight storage.

Editors Note: ADS-B out. Just picked up Shorty's catalog and noticed Stratus has come up with a certified ADS-B transponder which fits in an existing transponder slot and includes GPs antenna and mounting hardware for $2,995. (Add ADS-B In for $500) Finally someone is giving Garmin (the expensive guys) a run for their money. Noticed on the same page a Garmin also for $2,995 but does not state it includes a GPS antenna. I have the portable Stratus ADS-B in and it works great with my IPAD for weather and GPS positioning.

Calendar of Events

October 7th-Young Eagles LITH

October 8th- Chapter 1414 Pancake Breakfast, Poplar Grove Airport

October 21st- Fly Out to Janesville, Wis.

October 20-21st– STOL Instruction, Havana, IL.

October 24th-Chapter Meeting Go fly Presentation Brad DeLisle/Paul Ranieri also Tesla Presentation by Paul. Anyone interested in designing, building or just participating in this program should attend. Summer BBQ is done for the year. So don't arrive hungry.

Havana STOL Instruction October 20 and 21st

The Friday session will be a ground school N/C for Wings credit. On Saturday flying will start, bring your own airplane. Charge is $150. Only 25 registered applicants will be accepted. To register go to SimplyFlyAdventures.com and click on contact us Fill out the information form, putting Havana STOL in the subject line. Note your planes make and model, as well as to whether you plan to camp on the field.

October Board Meeting Notes

- Treasury Balance $7,227. 47 members and climbing
- Brad DeLisle was nominated and accepted the VP position, congratulations Brad
- February Banquet locations and date discussed. Ole will check on several locations the board suggested and will report at the next board meeting.
- Boeing Go-Fly Program explained. There is money in them their hills to design, present and build a helicopter device for transporting one person. Minimum specs; 20 NM w/10 minute reserve, clean energy, ultra compact. Payments are structured and paid out upon completion of various tasks. Go to goflyprize.com for more information. Click on technical details.
- Youth in Aviation-Explorers Post is dead. No leaders volunteered. LITH is still interested in the Pedal Park. Brad will follow up. Note: Brad and Nancy Blazyk are instructing Ground School for U14 school district. Class is full and more waiting.
- Scholarships- Board approved $1,000 payment to approved applicants. Brad will communicate to U14 school district. Others may apply by December first. Award presentation at Banquet.
- Directory-Paul is working on updating the Chapter Directory

AVIATION SCHOLARSHIPS

2018

Crystal Lake EAA Chapter 790 is offering scholarships for Youth in Aviation. $1,000 scholarship paid directly to a certified flight training facility. There also is an option for a two or three day Aviation Camp in Oshkosh, Wisconsin EAA Air Academy in June or July. Applicants to submit a written one page essay on why they are interested in Aviation and their Aviation objectives. A Chapter 790 Scholarship committee will review the essays and inform the lucky winners. You must be 14 to 20 years of age and with the consent of a parent or guardian. It must be typed double spaced using 12-point font. Please have at least 3 paragraphs to your paper; introduction, body and conclusion. Use focus and any relevant evidence to support your ideas. Use conventional standard written English. Ideal candidates should be well rounded, have a high school GPA of at least 2.00 on a 4.0 scale, be involved in school and community activities, as well as have a proven interest in aviation.

Please provide 2 references along with your paper.

Submit your application by **December 1st** to:

Paul Ranieri-President EAA Chapter 790

P.O. Box 1206

Barrington, IL. 60011

Posted 10/4/2017

EAA Chapter 790 Membership Form - 2017-2018
or sign up on the Website under Chapter Membership

First Name:_____

Last Name: _____

Spouse: _____

EAA Membership Number: _____ (Must be an EAA member)

Street Address: _____

City: _____ State: _____ Zip: _____

Home Phone: _____/_____-_____ Cell Phone: _____/_____-_____

Email Address: _____

Own Aircraft: yes or no Model or Type: _____

Aircraft Project: yes or no Model or Type: _____

For Young Eagles

If you have completed Youth Protection training, what was the date_____

If you have completed the background check, what was the date _____

Dues

$25.00 Family/Individual Renewing Membership_____ $10.00 Family/Individual First-Time Membership _____

$10.00 Out of State Membership _____ $10.00 Student Membership _____

Please make checks payable to "EAA Chapter 790" Bring this form and payment to a members meeting, or mail to:

EAA Chapter 790, PO Box 1206, Barrington, IL 60011

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