



The Beacon

The newsletter of Chapter 54
Lake Elmo, Minn.

DECEMBER 2016

November 2016

NEXT MONTH'S PROGRAM WILL BE ON

MONDAY December 12, 2016

- Social hour from 5:30 to 6:30 PM
- Serving begins at 6:30
- CHAPTER HOUSE, ENTRANCE B, LAKE ELMO AIRPORT 21D
- Speaker: See notice below
- Our Chapter Web site address: www.eaa54.org

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Chapter 54 Annual Holiday Gathering – December 12 at the Clubhouse

Our December meeting will once again be a delightful winter party. Linda and Bettie have put their heads together to come up with a tasty menu sure to please you all. Social time will begin at 5:30, feel free to bring an appetizer or beverage to share.

Dinner service will begin at 6:30. The menu this year is Roast Beef, Roasted Garlic Potatoes, Carrots, Tossed Salad and dinner rolls. Suggested donation is \$5.00

As usual, we would like to invite people to bring dessert items to share. That is always a highlight of the party.

My ride in a 1943 SNJ (North American T-6 Texan)



In late September of 2016 I was very fortunate to get a ride in this 1943 North American SNJ(T-6 Texan). All I had to do was buy the gas. If you have ever priced a ride in a war bird, you will know what a good deal this was!



This is the rear seat instrument panel, pretty

much as it was back in 1943. The round instrument in the lower right is a manifold pressure gauge that is used to adjust the power setting of the engine.



A 45-minute check out was part of the ride. Starting the 1,340 cubic inch 600 hp. Pratt & Whitney engine was just the best !The engine came to life with a clatter of noise, smoke, vibration, oil and exhaust fumes and finally a nice deep rumble as all nine cylinders began to fire. No doubt about it...there is a big engine up front!

The Texan was a large advance trainer back in its day with an empty weight of over 4000 pounds and a take-off weight of 5,500 pounds. After mastering the T-6, aviation cadets moved up to “real fighter” planes and then went off to war.

While there is a lot of room in the back seat, there is not much visibility. Out to the sides the rear seat guy can see ok, but the T-6 is absolutely blind looking towards the front. Even when the tail comes up on takeoff, you don't see much except the head and shoulders of the pilot up

front. The pilot's view from the front seat is much better, at least that's what I was told.



The mission for the day was to meet up with a North American T-28 near the Anoka County Airport and practice formation flying for just over an hour. My job was to watch for other aircraft and keep an eye on the T-28 as he practiced joining up on the T-6.

I did get to fly the T-6 from Lake Elmo over to the Anoka County airport and then home again. Up in the air the Texan is a very nice flying plane with much lighter control forces than I expected. Cruise speed is somewhere around 150 mph with a 30 gallon per hour fuel

burn...that works out to 5 miles per gallon. Back at Lake Elmo, we put in 38 gallons of LL 100 fuel, that big Pratt & Whitney engine is very thirsty! All in all, it was a flight that I will remember for a long time!

Dan B

Education Director's Report

The Learning Jet

The Learning Jet hosted a group of Boy Scouts for an overnight event on Friday, October 14 and Saturday, October 15. The scouts were working on an aviation merit badge and had events and activities scheduled through Saturday morning. This was the first time a group did an overnight at the jet.

The Learning Jet also had a booth at the Education Minnesota Conference at St. Paul's River Centre. I spent Thursday, October 20 at the conference staffing the LJ's table. I handed out literature and talked to many educators about fieldtrip and leaning opportunities at the Jet. Activities are available for students of all grade levels, from kindergarten to 12th grade. There was a lot of interest on behalf of the teachers. The Learning Jet has a "WOW" factor when teachers discover the classroom is actually a real Boeing 727 jet that formerly carried passenger and cargo.

The LJ promotes and supports STEM topics. STEM is an acronym for Science, Technology, Engineering, and Mathematics. We like to promote the LJ as a STEAM learning opportunity. STEAM is an acronym for Science, Technology, Engineering, Aviation, and Mathematics. Several teachers tried to correct me that the A stands for Arts, not Aviation.

Private/Sport Pilot Ground School 2017

Starting in November, planning will begin for 2017's ground school course. Typically the course will start in early February and conclude in early May.

New for this year will be the adoption of the ACS training standards. ACS stands for Airmen Certification Standards. They will replace the former PTS, or Practical Test Standards. The ACE standards became effective on June 15, 2016. The new standards apply to the Private Pilot Airplane and Instrument Airplane ratings. See the included FAA brochure for a summary of the changes. The ACS standards are in development for other ratings such as Commercial and ATP.

Details of the new standards, and what will be coming in the future, are available at http://www.faa.gov/training_testing/testing/acs/.

Leif Erickson

Educa-
tion Di-
rector

ACS Benefits

The ACS:

- Provides clear information on what an applicant must *know, consider, and do* to qualify for a given airman certificate or rating.
- Allows the FAA to ensure that test questions are aligned to the standard and supported by handbooks and guidance.
- Increases standardization.
- Enhances safety by ensuring that standards, guidance and testing for airman certification all work together effectively.



For More Information

[ACS Focus Team \(9-AV8-ACS-Focus-Team@faa.gov\)](mailto:9-AV8-ACS-Focus-Team@faa.gov)

Understanding the ACS* (ALC-449) www.FAASafety.gov

www.faa.gov/training_testing/testing/



Federal Aviation
Administration

Introducing the ACS:

Airman
Certification
Standards

Airmen (and women) Certificate Standards continued:



Photo by Chris Marks

An Integrated Approach

The Airman Certification Standards (ACS) framework provides a single-source explanation of standards for both the knowledge test and the practical test. It also enables the FAA to keep standards aligned with guidance (handbooks) and knowledge test questions.

Built on today's Practical Test Standards (PTS), the ACS adds the aeronautical knowledge and risk management elements needed to support each PTS Task. It does not change or lengthen the check ride.

The ACS provides a clear, easy-to-use "flight plan" for the material the FAA expects an applicant to know (knowledge), consider (risk management), and do (skill) to qualify for an airman certificate or rating.

The ACS will replace the PTS for Private Pilot Airplane (PAR) and Instrument Rating Airplane (IRA) on June 15, 2016.

Background

Since September 2011, the FAA has been working with aviation community stakeholders to help improve standards, guidance, and test development practices for airman certification.

Under the auspices of an Aviation Rulemaking Committee (ARC) and the industry's Aviation Rulemaking Advisory Committee (ARAC), three industry working groups have developed and refined the ACS framework. These groups have also made recommendations to improve the FAA's H-series handbooks and bring knowledge test development procedures in line with accepted best practices.

The FAA is supporting industry efforts to prototype use of the ACS approach. Feedback has been very positive. On June 15, 2016, the FAA will replace the PTS for Private Pilot Airplane (PAR) and Instrument Rating Airplane (IRA) with the corresponding ACS.

ACS Coding

The ACS assigns a unique code to each knowledge, skill, and risk management element. These codes are anchored in the ACS, unlike today's reference-based Learning Statement Codes.

ACS codes will provide more accurate feedback to applicants, instructors, and evaluators. The ACS codes will also enable the FAA to keep standards clearly aligned with guidance handbooks and test questions, and to develop timely and relevant test questions.

- PA** = Private Pilot Airplane (identifies applicable ACS)
- V** = Performance Maneuvers (identifies Area of Operation)
- A** = Steep Turns (identifies Task)
- K5** = Accelerated Stalls (identifies Task element)

Aeronautical knowledge
 Aeronautical decision-making and special emphasis
 Flight proficiency

V. Performance Maneuvers

Task	A. Steep Turns
References	FAA-H-8083-2, FAA-H-8083-3, POPA/FM
Objective	To determine that the applicant exhibits satisfactory knowledge, skills and risk management associated with steep turns.
Knowledge	The applicant demonstrates understanding of: <ul style="list-style-type: none"> PA.V.A.K1 1. Coordinated flight. PA.V.A.K2 2. Altitude control at various airspeeds. PA.V.A.K3 3. Maneuvering speed, including changes in weight. PA.V.A.K4 4. Controlling roll and rate of turn. PA.V.A.K5 5. Accelerated stalls. PA.V.A.K6 6. Overbanking tendencies. PA.V.A.K7 7. Use of flaps in a turn. PA.V.A.K8 8. Aerodynamics associated with steep turns. PA.V.A.K9 9. Aerostatic requirements and stallions.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, incorporating: <ul style="list-style-type: none"> PA.V.A.R1 1. Dividing attention between airplane control and orientation. PA.V.A.R2 2. Task management. PA.V.A.R3 3. Energy management. PA.V.A.R4 4. Checklist awareness. PA.V.A.R5 5. Situational awareness. PA.V.A.R6 6. Collision avoidance. (Clearing the area) PA.V.A.R7 7. Importance of coordinated flight.
Skills	The applicant demonstrates the ability to: <ul style="list-style-type: none"> PA.V.A.S1 1. Follow the manufacturer's recommended airspeed or if none is set, select a safe airspeed not to exceed V_g. PA.V.A.S2 2. Roll into a coordinated 30° steep turn with at least a 45° bank, followed immediately by a 20° steep turn in the opposite direction. PA.V.A.S3 3. Narrows the base in the opposite direction, as specified by the evaluator. PA.V.A.S4 4. Maintain the entry altitude, ±100 feet, airspeed, ±10 knots, bank, and 25°, and roll out on the entry heading, ±10°.

Know
 Consider
 Do



Welcome and thank you to the Elected Board Members! It was a unanimous vote: left to right — Jeff Hove, Dave Syverson and Paul Hove.

Special VFR By John Renwick

We were headed for breakfast with friends at Eau Claire last Sunday morning (Oct. 16). Ground fog at the field was supposed to be gone by 9:30, according to the TAF at 6:00 AM, so we planned a 9:30 arrival. ATIS was reporting IFR conditions, 1/4 mile visibility and 100' Vertical Visibility the whole time we were flying. My intention was to overfly the field, see what it actually looked like, and either orbit or backtrack to Menomonie to wait if it was going to be a long while.

I called EAU tower from 10 miles out, and told them I'd like to fly in for breakfast, and could I have a Special VFR clearance. The local controller asked me to report if the field was in sight when I reached Class D airspace. It was, as you can see in the photos.



The first photo shows the Chippewa River valley shrouded in fog. The airport is just off the picture to the left. In the second photo, you can see that the tower is in the middle of one of the few remaining patches of fog left around the field. Maybe they just couldn't see that the field was really free of fog. I reported that, and was cleared to land on 22. All of runway 4-22 was in the clear, as you can see in the 3rd and 4th photos (taken on downwind to 22). The approach and landing were completely normal and uneventful.



The moral of this story is that when you want to take off or land at a field that is reporting IFR and you know conditions are improving, Special VFR can be your friend. The controllers aren't allowed to offer it to you; you have to ask for it. If you don't, they'll just tell you the field is IFR, and you won't get a clearance to land or take off. If you request SVFR, they'll clear you to do what you want to do as soon as there is no other IFR or VFR traffic on approach or in the pattern. Safety is your responsibility.

If you've never considered using SVFR, I recommend learning about it and getting comfortable with it. I've used it several times, to good advantage. It just requires that you have really good weather information, stable or improving conditions, and knowing that



you're not flying into something you might not be able to handle.



Crystal Airport likely to shrink

Bob Collins September 13, 2016,

Crystal Airport, one of the Metropolitan Airports Commission's six so-called "reliever airports," is going to shrink. On Monday, MAC released its long-term vision for the airport.

There are three paved runways and one turf runway at Crystal, which sits in the middle of the dense neighborhoods of Crystal, Brooklyn Park and Brooklyn Center.

If MAC's vision becomes reality, it will have only two.



The report says the airport will continue to focus on small private airplanes — business jets usually go to Flying Cloud or nearby Anoka-Blaine — and it stresses that it doesn't see downgrading the role of the airport.

But it's hard to see exactly how MAC had determined that in the next 19 years, the number of planes and pilots at the airport will remain about the same. Not when the number of new pilots each year has dropped 65 percent from the 1980s in the United States and there's little indication the graying of general aviation is a trend that can be reversed.

MAC says it's "right sizing" its design for Crystal and notes the elimination of runways could open up the airfield for more development. It doesn't say what kind of development that might be, other

than calling it "non aeronautical."

Only South St. Paul/Fleming Field has more aircraft operations, according to MAC. And only South St. Paul/Fleming Field and Lake Elmo Airport have more based aircraft. But the airport still ranks in the top 10 statewide for aircraft operations, largely because it still has a flight school operating on the field.

But history suggests the airport's best days are behind it. In 1990, Crystal Airport had nearly 190,000 "flight operations" a year. Now, it's close to 41,000. Until 2000, about 300 aircraft were housed at the field. It's almost half that now, thanks to a slowing economy, increased fuel prices and other operating costs, and reduced interest in recreational flying by younger generations, MAC says in its report.

EAA Chapter 54 Meeting Minutes 11/14/2016

7:30 Call to Order by President Jim Pearsall

Welcome Visitors

Elections for the 2017-18 Term

- Nominees
- Class II Directors -- Three open seats
 - Jeff Hove – Incumbent
 - Dave Syverson – Incumbent
 - Paul Hove
- Newsletter Editor
 - Dale Seitzer

A motion from the President was presented and seconded that the Nominees be presented for approval, Jim Pearsall explained that the set of nominees would be voted on as a slate, not individually, motion passed and seconded unanimously. A call for the vote was made for the Director and Newsletter editor positions and passed unanimously. We are still looking for a Secretary to finish out the rest of the term.

The October financial summary was presented. We are in very good shape financially.

Other business:

- Building Upgrades - Proposals presented for replacement of the 5 sliding windows and new siding was discussed. Proposals were not within the target Discussion followed and it was determined that our Chapter 54 priority is the replacement of the five windows. Already approved budget should be used to replace the windows and install new siding.
- 2017 Dates
 - Aviation Day - Discussed dates pending second Sunday in August, is the 13th
 - Saturday WINGS Programs - John Renwick is organizing, dates TBD
- Ground School Meeting - Sat Nov 19, 9 AM Dates will be discussed
- Metro EAA Leader Meeting _ Jim Pearsall is hosting a call Nov 29th for area chapters to coordinate, communicate event dates
- Visit by David Leiting of EAA Chapter Outreach - Sunday Nov 27th, we will have lunch at the clubhouse with all interested members.
- Internet Access was discussed, Jim Pearsall is looking into how we could structure it, fund through a separate fund.

Meeting adjourned at 8:12

For Sale, Rent or Wanted

Wanted: Four place airplane, fixed gear, Mid time engine, STC for auto fuel or approved engine and airframe. Also looking for hangar to rent at Lake Elmo. Please call 651-246-8028

For Sale: 1965 Mooney M20C 4600 total time 1090 since major overhaul 165 mph cruise Please call 651-429-5569 for more information Please email newsletters@eaa54.org if you have an aviation related item to sell or looking to buy.



Tailwinds Flying Club Welcomes New Members

Tailwinds Flying Club is based at Lake Elmo airport. We are a non-profit corporation of 39 pilots who equally own three aircraft and one hangar (25E). Our goal and philosophy are to fly great airplanes safely and inexpensively. We currently have a Cirrus SR20, Archer II and Cherokee Six. Some of our members belong to EAA 54 and we love to fly Young Eagles. Please stop by and visit us anytime! North side, Fairchild Lane, Hangar 25E. To inquire about membership, please call 612-584-1740 or visit www.tailwinds21d.org.



FROM THE FLIGHT DECK (PRESIDENTS REPORT)

JIM PEARSALL

Welcome to winter Chapter 54, and welcome to our returning and new-for-the-moment Chapter Directors Jeff Hove, Dave Syverson and Paul Hove. Paul is returning having held leadership roles including President in the past.

Our next gathering will be our annual dinner party on December 12th, in lieu of our December meeting. Come early for social time starting at 6, dinner at 6:30. Please consider helping out with serving or cleaning up to take the load off the usual suspects. We will keep the lights on and food available as long as it lasts into our regularly scheduled meeting time for those without the flexibility to get there early.

In preparation for an upcoming meeting with local chapter leaders to coordinate calendars, we are establishing dates for our 2017 major events. Our Aviation Day Pancake Breakfast is scheduled for August 13, 2017 and of this writing we are planning on a Private/Sport Pilot Ground School starting February 16th. We may also have some extra events next year, stay tuned for information about Saturday morning seminars. We will continue our Young Eagle events the second Saturday May through October. We will again do the hangar tour for Farnsworth; and that date is yet to be determined.

In other news, Paul Randall and I traveled to LVN's Chapter 25 monthly meeting on November 16th, where Paul presented an updated version of his Airventure presentation on Practical Electrics. I spoke to how folks at Google, Facebook and Uber are investing big money on new aircraft ideas. In addition to these business investments, I am also looking at what is going on in the experimental world related to electric

aircraft - what folks like James Wiebe of Belite are up to. Hmm wonder if we could get James on the line?



Continued from page 2 — My ride in a 1943 SNJ (North American T-6 Texan)



Above, Dan Bergstrom inspecting the starting technique and below measuring the strength of the leading edge.



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