



The Beacon

The newsletter of Chapter 54
Lake Elmo, Minn.

January 2021



21D RCO 118.625 COM 122.8 AWOS 120.075 Elev. 1932'
Runways **4-22** (2497' x 75') **14-32** (2850' x 75')

Chapter House, South Airport Entrance at the Beacon

Chapter Meetings 2nd Monday of Each Month
7:00pm social 7:30pm Meeting

Who's currently who in Ch.54:

www.eaa54.org

President: Leif Erickson
president@eaa54.org

Vice Pres: Gregg Adler
vicepresident@eaa54.org

Treasurer: Tom Gibbons
treasurer@eaa54.org

Secretary: *your name here?*
secretary@eaa54.org

Education Dir: Robyn Stoller
education@eaa54.org

Housing Dir: Dan Bergstrom
housing@eaa54.org

Membership Dir: John Renwick
membership@eaa54.org

Young Eagles Dir: Scott Hanson
youngeagles@eaa54.org

Newsletter Ed: Marlon Gunderson
newsletter@eaa54.org

Webmaster: Michael McKinnon
webmaster@eaa54.org

Directors, Class2: Tim Reberg,
Paul Hove, Bill Schanks Jr.

Social Media: Jim Pearsall
socialmedia@eaa54.org

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From the Flight Deck (Leif Erickson)

Looking forward to a better 2021

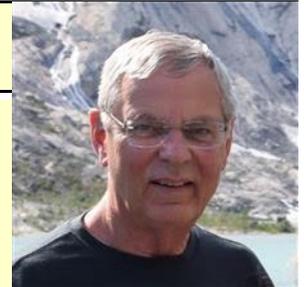
I think we can all agree that 2020 has been a challenging year ... that is now behind us. The virus, and how we dealt with it, has been one of the issues that will stand out in my memory for the remainder of my life.

The same can be said for the challenges Chapter 54 has faced. Starting last March, the virus avoidance restrictions imposed on the state impacted nearly every aspect of the chapter. Our monthly meetings went virtual. One of the benefits of virtual is it allows our more senior members to join remotely from literally anywhere in the world that has internet access. I think of Norm Weston and Jesse Black. Their family members have expressed that participating in Chapter 54 meeting has been one of their high lights each month.

But despite the challenges of 2020, there is hope for 2021. With the availability of a vaccine, the threat of becoming infected with COVID-19, will be diminished. Restrictions placed on businesses and schools will be relaxed and eventually our lives, and Chapter 54, will return to normal ... as defined by pre-2020.

Our Housing Director Dan Bergstrom tells me the clubhouse is clean and ready to open as soon as restrictions are lifted. We are limping through the winter season with a furnace that is nearing the end of its useful live. Our board decided to limp through the winter with it and deal with replacement next summer. Imagine summer cookout gatherings on the clubhouse deck next summer, grilled burgers and dogs, potluck dishes, and member's airplanes on display. And the May-October Saturday Young Eagles Rallies. I will never forget the smiles and excitement on the kid's faces at the end of each flight. In the roughly 15 years I have volunteered as ground support, I can honestly say I have never driven home, at the end of the rally, without a smile on my face.

Some exciting news is emerging from our Education Director, Robyn Stoller. The Board approved proceeding with plans to sponsor a Young Eagles Workshops event this



coming summer. This program is basically a summer aviation camp for youth. The program was conceived by EAA Inc as another tool to encourage youth involvement in aviation. Parents send their children to summer camps that promote soccer, hockey, horseback riding, art, etc. EAA thought ... why not aviation? Robyn is in the planning stage for a summer 2021 event. She is looking for volunteers to help plan the program and to provide the human resources to make it happen. Details about the program are available on the eaa.org website. When you receive a request to volunteer your services, please say **yes**. Or better yet, email Robyn at education@eaa54.org to volunteer. Do your part to promote the future of general and sport aviation.

The chapter is pleased to announce that Jim Pearsall has agreed to serve as Chapter 54's social media person. Jim's concentration will be on raising the Chapter's present on Facebook. Jim has a long record of involvement with Chapter 54. He has served as Chapter 54 Vice President, four years as president, and two years as secretary (if my memory serves me correctly). I am pleased to have Jim back and actively engaged in chapter activities. His

expertise and experience with chapter operations are greatly appreciated.

One of the responsibilities of the chapter I want to concentrate on for 2021 is connecting with our members that are building and/or restoring airplanes. Building and restoring airplanes is the soul of EAA. The activity that EAA was originally built around. The chapter needs to both acknowledge and support those members. I am not quite sure exactly how to proceed with the challenge. A suggestion was made to devote time at each monthly meeting to give our builders time to talk about their projects, their progress, challenges, and successes. We need to also remind them of the Technical Counselor services available in Chapter 54. We currently have three members with that status. Any suggestions from members on how to support our builders is greatly appreciated. I am available at president@eaa54.org.

Your suggestions/requests for monthly meeting programs are also appreciated. With your help, we can provide programs that match your interests. Email your suggestions to vicepresident@eaa54.org.

Thanks for reading.

Leif E.

Around the Field (M. Gunderson)



Since October, The three tall new hangars, right side, above, have fully sprouted on Foxtrot Lane just north of the 21D beacon. A foot of early snow in mid-October likely caused some heartburn when construction had just begun, but mild weather in November and early December allowed a quick completion of these structures.

The new hangar pictured above also went up in the last couple of months to replace the hangar that collapsed from snow load last spring on (the southern most) taxi lane Mike.



To the left is Tim Sullivan preparing for the first flight of his Zenith CH601 HDS, accomplished on November 1st, 2020 after DAR Steve Wagner had signed off the inspection and operating limitations the prior week.

Tim reported all went well on the first flight except the pitch trim was tripping its breaker and the I-com 210 needed dialing in for squelch and gain.

I saw Tim flying regularly during November and December so he's

making rapid progress on Phase 1 testing.

Congratulations Tim!

To the right is yours truly ready to punch holes in the sky on a balmy 50 degree December 9th. Dan Bergstrom snapped this photo after returning from an outing in his Tailwind that day. The skies were a little crowded that afternoon due to the unseasonably warm and clear weather.



October 12, 2020 Chapter Meeting

The October Zoom chapter meeting featured a presentation about the Air Force Junior Reserve Officer Training Corps (AFJROTC) program at St. Paul Johnson High School arranged by Ch.54 VP and Johnson HS Tech Ed teacher Gregg Adler. The presenters were Senior Aerospace Science Instructor Colonel (Ret) Dwight Dorau and one of his accomplished students, Cadet Chief Master Sargent James Hanley.



Colonel (Retired) Dorau earned a Bachelor of Arts in History and Political Science from the University of Minnesota, Duluth, in 1989. He earned his navigator wings at Mather Air Force Base, Calif., in 1992. His career has encompassed a variety of assignments, including command of the 621st Contingency Operations Support Group, Joint Base McGuire-Dix-Lakehurst, New Jersey, the 100th Operations Support Squadron, Royal Air Force Mildenhall, England, and the 22d Expeditionary Air Refueling Squadron,

Manas Air Base, Kyrgyz Republic.

His staff assignments include Director of Operations, Tanker Airlift Control Center, 618th Air and Space Operations Center, Chief of Tanker Tactics and Policies, Headquarters Air Mobility Command, Scott Air Force Base, Illinois, and Executive Officer to the Director of Logistics and Security Assistance, Headquarters United States European Command, Stuttgart, Germany. Prior to his current assignment, the colonel was the Chief of Nuclear Operations Division at Scott Air Force Base, Illinois.

Col. Dorau is a Master Navigator with over 2,700 flying hours in the KC-135R/T. Col. Dorau's Major Awards and Decorations



include the Legion of Merit with oak leaf cluster, the Defense Meritorious Service Medal with oak leaf cluster, the Meritorious Service Medal with three oak leaf clusters, and the Air Medal.

James Hanley is an 11th grader and a Cadet Chief Master Sargent in the AJROTC program at Johnson H.S. He has a student pilot certificate and flies a PA-28-151 Warrior out of Fleming Field and his goal is to be a professional pilot.

The [AFJROTC program](#) provides citizenship training and an aerospace science program for high school students. It offers a wide variety of curricular and co-curricular activities. The program explores the historic and scientific aspects of aerospace technology and teaches high school students self-reliance, self-discipline, and other leadership characteristics. Science, technology, engineering, and mathematics (STEM) concepts are also an important part of this world-class program.

AFJROTC objectives are to educate and train high school cadets in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character, leadership, and self-discipline through education and instruction in air and space fundamentals and the Air Force's core values of integrity first, service before self and excellence in all they do.

We learned that Air Force Jr. ROTC Programs are [haphazardly distributed](#) around the country, sprouting wherever an interested High School or district can

attract a retired Air Force officer (or vice versa) to administer a program for the school. Wisconsin has only one such program, near Milwaukee, while Minnesota has five programs, one in North Branch, and the other four clustered in the east metro area at Johnson, North, Park, and Woodbury High Schools. These programs are excellent for preparing students for leadership and for entry into college ROTC programs, military academies, or college aviation programs.

Cadet James Hanley lives in a western neighborhood of St. Paul but commutes to Johnson on the east side to take advantage of the AFJROTC program. He is also active in the Johnson student government which is tasked with governing the student body including rules of conduct, convening student body meetings and programs, and organizing the schedule of student activities. One is struck with his maturity and focus at his young age, and his future appears to hold great promise.

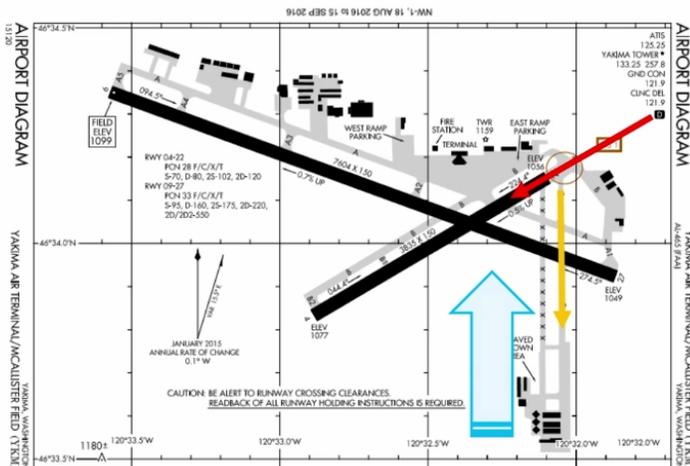
November 9, 2020 Chapter Meeting

The **November 2020** chapter meeting was the 'Membership' meeting, held by Zoom, and included the election of these Class II Directors:

- Class II Director-at-Large **Tim Reberg**
- Class II Director-at-Large **Paul Hove** (incumbent)
- Class II Director–Historian **William Schanks Jr.**

Prior to the election, the meeting participants wished a 'Happy Birthday' to charter member Jesse Black who had recently celebrated his 90th trip around the sun and joined us from Idaho. News was also shared that Bob Pittelkow passed away suddenly on October 29th just short of his 85th birthday. Bob was a regular with a group of chapter members that met Saturday mornings for breakfast at Gorman's for many years. He was a husband, father, grandfather, retired engineer, an avid woodworker, a longtime private pilot, and will be missed by many.

The tower has cleared you to land on runway 22. However, fearing the effects of crosswind on landing and taxi, you ask permission to land on Charlie taxiway, which is the old runway 16. The tower replies: negative.



The program that followed the election of directors was a VMC Club scenario based discussion about [a situation encountered](#) by an EAA member flying to Yakima, WA. The discussion was led by Eric Olson, Tom Stehlar, and Nathan Ruedy of Lake Elmo Aero. Participation qualified for one basic WINGS credit. The scenario involved a pilot flying a friend in Cessna 170 from Walla Walla to

McAllister Field (YKM) in Yakima with a 30 minute fuel reserve; visibility is good but with moderate turbulence and Yakima ATIS is indicating winds SSE 15G25. On arrival at Yakima, cleared for landing on Rwy

22, the winds are 150-180 but now gusting to 30kts and this is at or possibly exceeding the crosswind capability of the aircraft and/or the pilot's estimate of his own skills, and the passenger is getting squeamish from the turbulence. The pilot requests clearance to land instead on taxiway Charlie, which in the past had been crosswind runway 16, but the tower declines that request. Chapter members were invited to share how they would deal with that scenario.

Members consulting a sectional map noted that Mettie Airstrip (Z99) is about 13 miles NE from YKM in a restricted airspace with runway 12 perhaps slightly better aligned with the average wind direction, but which would be pushing fuel endurance and not leave much fuel margin if a go around was required. Discussion ensued about how the restricted airspace would affect a decision. Discussion then turned to re-engaging with the tower controller to describe the landing speeds and characteristics of a Cessna 170 taildragger, crosswind considerations, and the fuel situation, and making a stronger case for the request to land either on taxiway C or in what looked to be mowed grass field right next to and east of taxiway C. A tower controller might not be very familiar with your type of aircraft or its landing speeds and characteristics. Discussion also included the option of declaring an emergency to perhaps give the controller more latitude in his response. These scenarios provide no 'right answer' and are designed to let each participant decide what they would do in the given scenario with the instructors providing insight into factors that might affect or result from participant's decisions.

December 14, 2020 Chapter Meeting

The December Zoom chapter meeting featured an excellent well researched [presentation by Chapter President Leif Erickson](#) on the August 2000 storm that caused significant aircraft and building damage at the Lake Elmo Airport. Leif began with a presentation of the meteorological conditions that caused the damage, having researched the storm extensively, including finding archived weather reports and Doppler radar data and images from the hours before, during, and after the storm that hit at 1:40 am on Saturday August 26, 2000.



The phenomena that occurred that night was a micro-burst, which is a column of dense humid air that collapses upon itself when the column cools at the higher altitudes becoming heavier than the warmer air below. The air collapses downward, picking up speed during the course of a long fall, and is deflected by the earth's surface away from the bottom of the column radially. Doppler radar reveals the bottom of a micro-burst column when rain/wind can be seen moving

in opposite directions along a distinct line. Leif shared doppler images that showed the micro-burst at 1:40 am over the railroad tracks north of the airport with strong winds heading south across the airport.

Leif then shared photos of storm damaged buildings and aircraft, identifying aircraft and owners where possible from N number searches or identification by Chapter members. Stories were swapped by the members in attendance of their experience of the storm for those who frequented the airport around that time, including Leif's attempts to get past local law enforcement personnel who were limiting access to the airport on Saturday morning. The FBO on the field at the time, Mayer Aviation, had a building on the south side of the field that was flattened, and most of it's rental fleet was destroyed. Leif surmised from Ed Mayer's irrepressible smile that day that his level of hazard insurance was sufficient.

I (Marlon) had not been at my home, one mile west of the airport, the night of that storm, but returned Saturday to find the tops of three Norway Pine trees on the north side of my house snapped off 15 feet above the

ground with one of the tops lodged in the roof of my house. After working with neighbors to clean up around our homes for a few hours it dawned on me that I should check the airport. I arrived at the airport to find that my recently acquired aircraft had been reshaped into the less aerodynamic configuration shown here.



This was a nicely crafted O-200 powered Protech PT-2 Experimental Amateur Built aircraft that I had purchased from builder Jim Koktavy of Rush City who had started building it at Anoka County airport with advice and assistance from Darryl Lamire, who from the previous newsletter was noted as the 1986 recipient of the Speed Holman Memorial Achievement in Aviation Award. I was in the process of taking dual instruction from then Ch.54 President Bill Schanks in this aircraft in pursuit of my private pilot's certificate. I did not have hull insurance but recouped much of my investment from the aircraft by parting it out, including its nice O-200, and even with the loss it ended up being a

much better investment than my employer's stock that I did not sell (Lucent) compared to that which I did sell to finance the acquisition of this aircraft. It was a difficult phone call to deliver the news to Jim that his carefully built aircraft had been destroyed two months after leaving his care.

Name that Plane! (Robyn Stoller)



Most of us recognize planes made in the last half century and can even name the types and models. But, what about airplanes made one hundred or more years ago...can you name this plane? Two Hints: It was filmed in some hilarious flying scenes in the 1963 movie "It's a Mad, Mad, Mad, Mad World" and a beautifully restored example is on display at the National Museum of the U.S. Air Force in Dayton, OH. First two photos are taken from the film; third photo courtesy of U.S. Air Force Museum.

Take a guess and check your answer on the last page.

The Gust That Took Me Away (Kevin Szalapski)

THE SET UP - It was a clear summer evening around Osceola, as I took off for a flight around the neighborhood. The St Croix River Valley and the rolling farmland and woods make the area a fun place to fly. The wind was coming from the west as I took off on Runway 28, into the wind. Flying over the Saint Croix river you see fisherman, people in canoes and pontoon boats, and people swimming, all enjoying a beautiful warm summer evening. After a one hour flight and some practice landings at a nearby airport, I headed back to Osceola to land. The wind was still blowing from the west, but now it was a little stronger with some gusts. Lowering the aircraft on the center line, the trike made an acceptable landing on runway 28 and all the parts stayed attached. I could tell the wind speed had increased because with the head wind, I was

traveling very slow before touchdown on runway. As I was taxiing down the runway, there were a couple pilots that I know sitting in their open hangar. My hangar is located north of the runway which would be a right turn at mid-field turn off. I opted for a left turn to visit my pilot friends at the open hangar south of the runway. Pilots never seem to run out of words and will discuss just about anything that comes up. I pulled my trike up to their hangar, turned off engine, set the parking brake, and strapped the control bar tightly to compression strut in front, so that the wing would not be bouncing around with the increasing wind speed. Facing the front of trike into the wind, so it would not catch the upwind wing and flip the aircraft is always a good idea. When you remove the weight of the pilot, the trike is more vulnerable to strong gusts. The best anchor, would be to have a fat guy sit in the trike during strong gusty winds. As us 3 pilots discussed aerodynamic wing design, the airport manager, and many other subjects, I noticed the wind gusts coming in at a greater force. It was time to cut the conversation and get my trike into the hangar before something bad happened.



THE BIG GUST Putting on my headset and helmet, I started the trike, removed parking brake and turned on the radio. Knowing I would have a strong crosswind, crossing the runway as my hangar lies about one block North. Being on the ground, I had no issue about my ability to taxi under control to the hangar. I taxied to the hold short line, looked for traffic landing or taking off and did not see any aircraft. The radio was also quiet as not many pilots would be out flying in this wind. Making the announcement that stated "Weight shift trike would be crossing runway 28, mid field, to taxi to North Hangars", I chose to start out slowly by just creeping across the runway, to try and stay in control. The Airborne XT-912 trike has one shoe brake on the front wheel which does not provide a lot of

stopping power. As I entered the runway a strong gust propelled the trike forward and to the right, like a giant hand had come from behind and gave me a hard shove forward. My foot pushed hard on the brake which had no effect. My plan was to go North, the wind pushing me was from the West, so my trike was heading at a 45 degree angle to the North East. The trike traveled across the runway, thru the grass, across the taxiway, then down into the small ditch and up into the plowed field. The trike came to a stop in thick mud up to the axles, which provided the much needed braking power. This all happened in 10 seconds. The trike had stopped, the gust had stopped so I shut off the engine and climbed out of cockpit to survey the damage. The prop had not come in contact with anything during the wild ride and everything looked OK other than the trike getting a mud bath. My friends came over from across the runway and by lifting up the front end and rotating the trike back towards the taxiway, we were able to walk it out of the field of mud. At that point we just walked it to the hangar, with one guy at each wing tip to get the aircraft out of the wind and into the safe enclosure.

THE DEBRIEF Had I tried to steer the front wheel north with my feet, there was a good possibility that the gust, hitting the wing from the rear could have lifted my rear left wheel, tipping the trike forward until the leading edge tube of the right wing would hit the ground. It would act like a wheel barrow that is very heavy on the front right side as you lift up, it falls forward to the right and dumps all of it's contents. It was good I resisted the urge to turn left at the higher speed during the gust. High speed on 3 wheels is never ideal. When flying, with a stall speed of 35 mph, I always try to slow the trike down as much as possible while over the runway before touching down. The best action after thinking about what happened, would have been to turn right and let the tailwind gust push me down the runway until it blew itself out. There were no planes taking off or landing, so that would have worked out. Being caught by surprise, I turned into a passenger, just along for the wild ride. All the newer Airborne trikes come with hydraulic disk brakes on the rear wheels. Those would have stopped my travel, as long as the wind did not tip the trike over. Once the leading edge tube and fabric has been damaged, it is no longer safe to fly the wing, in that condition. It would have been very hard to steer away from an Aircraft on the taxiway that could have been in my path. It is very scary to think of running into a moving prop at 20 mph.

LESSON LEARNED I wanted to write about this incident, so other pilots might learn from my experience, when in the same situation. You are not done flying until engine is off and aircraft is safely in hangar. The next time I went to the hangar, the mud had dried and I was able to use a hose and wash off all the mud and leave the ground for an air dry. The trike survived the runaway gust quite well.

(Editor – if you ever wondered what it might be like to fly a trike down Glen Canyon, Kevin shared [this video](#).)

Editor's 2¢ (M.Gunderson)

Winter provides an opportunity to spend a little more time indoors, assuming you stay in Minnesota for it. I look forward to this time of year for the extra time that seems to become available for reading, learning, and workshop activities. Here are a couple of suggestions if you're looking for something to occupy some of your winter hours:

MS Flight Simulator

Last year Microsoft released the first major update to this product in over a decade. You may have noticed that software and digital technology has changed a bit in the last decade, so you might expect a pretty significant change, and if so, you would not be disappointed. MS pulled out all the stops and did a ground up re-envisioning of this software experience, leveraging the now nearly ubiquitous high bandwidth available to home PC users and data center cloud databases to make a stunningly realistic earth surface available at your PC. Check out [this video](#) on the making of MS Flight Sim 2000 and the miracle of flight they have made available in your own home on a snowy winter's day. You might find yourself buying this product (\$60 std) and spending some of your winter hours exploring the world.

EAA Webinars

Here are some great upcoming offerings.

Huey: Saving an Icon from the Vietnam War TUESDAY, JANUARY 12, AT 7 P.M. CST Presenter: Chris Henry <i>Museum Webinar Series</i> Register Now >
Surviving Carbon Monoxide WEDNESDAY, JANUARY 13, AT 7 P.M. CST Presenter: Prof. H. Paul Shuch <i>Qualifies for FAA WINGS and AMT credit.</i> Register Now >
The International Aerobatic Club Turns 50 Years Old and It's a Golden Birthday! TUESDAY, JANUARY 19, AT 7 P.M. CST Presenters: Lorrie Penner, Mike Heuer, Debby Rihn Harvey, and Rob Holland Register Now >
Avionics Options for your Homebuilt Aircraft with Dynon TUESDAY, FEBRUARY 2, AT 7 P.M. CST Presenter: Michael Schofield <i>Homebuilders Webinar Series</i> Register Now >
How Mags Work WEDNESDAY, FEBRUARY 3, AT 7 P.M. CST Presenter: Mike Busch <i>Qualifies for FAA WINGS and AMT credit.</i> Register Now >
Corsair: The Story of the EAA Aviation Museum's F4U Corsair TUESDAY, FEBRUARY 9, AT 7 P.M. CST Presenter: Chris Henry <i>Museum Webinar Series</i> Register Now >
ATC and You: How to Make the Most of Flying VFR WEDNESDAY, FEBRUARY 10, AT 7 P.M. CST Presenters: Richard Kennington and Bob Obma <i>Qualifies for FAA WINGS credit.</i> Register Now >
Flying Procedures into Canada TUESDAY, FEBRUARY 16, AT 7 P.M. CST Presenter: Luke Penner <i>Qualifies for FAA WINGS credit.</i> Register Now >
ATC and You: Balancing IFR Flying and the Efficiency of Controlled Airspace WEDNESDAY, FEBRUARY 17, AT 7 P.M. CST Presenters: Richard Kennington and Bob Obma <i>Qualifies for FAA WINGS credit.</i> Register Now >
Owner in Command: Things I Wish I Knew Before I Knew Them WEDNESDAY, FEBRUARY 24, AT 7 P.M. CST Presenter: Sebastien Seykora <i>Qualifies for FAA WINGS and AMT credit.</i> Register Now >

Name that Plane answer:

It's a Standard J-1, built 1916-18 as a two-seat primary trainer. It was used by the U.S. Army Air Service to supplement the JN-4 Jenny. The J-1 was more difficult to fly and never gained the popularity of the JN-4 Jenny. According to the U.S. Air Force Museum, the J-1 was developed by the Standard Aircraft Company and designed by Charles Healey Day. Four companies – Standard, Dayton-Wright, Fisher Body and Wright-Martin – built 1,601 J-1s. The J-1 was reportedly disliked by instructors and students alike because of its highly vibration-inducing and unreliable four-cylinder Hall-Scott engine.

The government cancelled about 2,700 more J-1s on order after the Armistice was signed in November 1918. A number of J-1s continued to be flown by civilian flying schools and for joy-riding and barnstorming operations, until they were worn out or were forced into retirement by new air transport legislation in 1927 which banned passenger aircraft with wood structures due to a number of high-profile accidents.

Engine: Hall-Scott engines were most commonly used but some were equipped with Curtiss or Hispana-Suiza engines, Maximum speed: 72 mph, Range: 235 miles, Ceiling: 5,800 ft, Span: 43 ft. 10 in., Length: 26 ft 7 in., Height: 10 ft. 10 in., Weight: 2,100 lbs. Loaded.

You can also see a Standard J-1 in the 1975 film “The Great Waldo Pepper”, but if you’re looking for some hilarious flying scenes with the J-1 in action, watch “It’s a Mad, Mad, Mad, Mad World”. You’ll love it!