



The THUNDER *Word*

Thunderbird Field EAA Chapter 1217 January 2025 Scottsdale, AZ

PRESIDENT'S CORNER

Greetings from my corner of the hangar! At our last Chapter meeting in November Dan Olsen the owner of Sibran Fuels gave us an update on the replacement for 100LL avgas. The takeaway is there are currently three main players in developing the new fuel. The only downside is the GAMI fuel is hard on painted surfaces so you have to be really careful to not spill or drip any on your plane. There are also some differences in the path to certification, is it going to be a blanket STC or issued by make and model. It should be an interesting five years until it becomes available.

Curtis

PAUL SHEPARD FLIES WEST

Long time Chapter 1217 member Paul Shepard tragically passed away in early January. Paul is survived by his wife Martha, He was a retired police officer from California and had built and owned several RV aircraft and was the go to guy on building, maintaining, and flying them. He was described as the pillar of the RV community at Deer Valley.



Beautiful RV-14 built by Paul Shepard

JANUARY CHAPTER MEETING

The January meeting of Thunderbird Field EAA Chapter 1217 will be held on Wednesday, January 15th. Join us at 6 pm for dinner; then the speaker starts at 7 pm. The location is the Barrio Restaurant in the Deer Valley Airport Terminal Building. This month's speaker is Randy Brooks, who is going to talk about preventing loss of control accidents. In other words, understanding how loss-of-control accidents happen and how to make you a safer pilot. Randy's official bio is below, but his experience flying airshows for the Holiday Inn Aerobatic Team, Red Baron Pizza Squadron and as the Eclipse jet factory demo and airshow pilot show his wide range of experience

Guests are always welcome.

OFFICIAL SPEAKER BIO



Mr. Brooks currently provides Upset Prevention and Recovery Training for a broad range of military, airline, and general aviation pilots. Randall has provided all-attitude/all-envelope flight instruction for over 30 years and has pilot in command experience in over 100 types of jet, propeller, and glider aircraft.

Mr. Brooks holds an Airline Transport Pilot Rating with over 15,000 hours of flight experience and type ratings in multiple jet and turboprop aircraft. Randall's many past flight operations roles have included director of operations, director of training, production flight test, simulation flight test, marketing demonstration and display pilot, corporate pilot, and ten years as a member of three civilian formation aerobatic demonstration teams.

Mr. Brooks holds a B.S. degree in Aerospace Engineering from the University of Colorado. Awards Dr. Tony Kern Professionalism in Aviation Award Issued by National Business Aviation Association · Oct 2019 Recognizing individual aviation professionals who have demonstrated outstanding professionalism and leadership in support of aviation safety in the business aviation industry. Airshow Hall of Fame Issued by International Council of Airshows · Dec 2015 Inducted into the Airshow Hall of Fame as a member of the Red Baron Squadron formation aerobatic demonstration team. Ruth Reinhold Safety Award Issued by Arizona Pilots Association · Feb 2024 The Ruth Rhienhold award is presented to individuals that make a long-term contribution to aviation safety in Arizona. Presentation History

- 6 June 2024: Pilatus Owners and Pilots Association, Colorado Springs - "The Invisible Threat of Loss of Control In-flight and How to Mitigate It"
- 7 January 2022: UPRT Expert's Corner, Virtual – "Critical Features in Corporate Flight Department UPRT", with Paul Ransbury and Clarke McNeace
- 8 October 2021: UPRT Expert's Corner, Virtual – "Value of Supersonic and Transonic Training in UPRT", with Clarke McNeace and Capt. Steve Stowe
- 6 October 2021: UPRT Safety Summit for Professional Pilots Worldwide, Virtual – "Role of Virtual Reality in UPRT" with Cody Louviere
- 28 September 2021: UPRT Expert's Corner, Virtual – "Misleading UPRT Myths" with Paul Ransbury and Clarke McNeace
- 22 September 2021: UPRT Expert's Corner, Virtual – "Top UPRT Implementation Mistakes", with Paul Ransbury and Clarke McNeace
- 8 September 2021: UPRT Expert's Corner, Virtual – "Learn to Turn: Laying the Foundations for Proper UPRT Skills" with Rich Stowell
- 15 September 2020: International Aerobatic Club Webinar – "Unusual Attitude Training and Upset Prevention and Recovery Training: What's the Difference and Why Does it Matter?" with Norm Dequier
- 14 November 2019: Bombardier Safety Standdown, Ft. Worth – "Creating Standards-What do you Stand For?"
- 12 November 2019: Bombardier Safety Standdown, Ft. Worth – "Elevating Standards in Upset Prevention and Recovery Training"
- 22 October 2019: NBAA, Las Vegas - "Loss of Control In-Flight (LOC-I) Building Consensus for Effective Solutions" with Paul Ransbury
- 27 March 2019: Simulation and Training for Resilience and Safety, London, UK – "Integrated Upset Prevention and Recovery Training"

- 30 October 2018: Bombardier Safety Standdown, Wichita - "Aerodynamics of Upset Prevention and Recovery Training"
 - 30 August 2018: Executive Jet Management Roundtable, Cincinnati – "Risk Management of Loss of Control In-Flight: Safety through UPRT"
 - 24 August 2018: North Texas Business Aviation Association, Dallas – "Leading the Way to Reduced LOC-I: Leadership Examples in the Quest to Improve Safety"
 - 25 July 2017: EAA Airventure, Oshkosh – "Loss of Control In-flight: What You Don't Know Can Hurt You"
- 31 August 2016: Asia Pacific Airline Training Symposium, Singapore - "The Human Element in Loss of Control In-Flight"
- 8 October 2015: Bombardier Safety Standdown, Wichita - "Understanding the LOC-I Threat and its Mitigation through UPRT"
 - 9 October 2014: Bombardier Safety Standdown, Wichita - "Giving Upset Prevention & Recovery Training the Attention it Needs"
 - 4 April 2013: Pacific Northwest Business Aviation Association, Seattle - "Upset Recovery Training Concepts and Strategies: Repairing the Cracks in the Foundation"
 - 1 November 2012: National Business Aviation Association, Orlando - "Upset Recovery Training Concepts and Strategies: Repairing the Cracks in the Foundation"
 - 8 June 2011: Royal Aeronautical Society, London, Flight Simulation Conference, "The World Outside the Aircraft – Simulating the Operational Environment" - "The Psychological Boundaries of Flight Simulation"
 - 10 November 2010: European Airline Training Symposium, Istanbul - "Loss of Control in Flight-Training Foundations and Solutions"
 - 26 March 2008: Royal Aeronautical Society, London – Introducing Very Light Jets into Europe Conference, "The Eclipse Training Philosophy"

WICKENBURG AIR FAIR

Wickenburg Fly-In & Classic Car Show.
Saturday, January 18, 2025 9 am to Noon . Free breakfast to pilots flying in

BUCKEYE AIR FAIR

Mark your flying calendars The Buckeye Air Fair is February 14-16. The 2025 Air Fair will feature an airshow, vintage and military aircraft, action-packed demonstrations, Aviation Academy exhibitions and so much more. The AOPA is sponsoring it and more information can be found at AOPA.org/buckeye

AIRPORTCOURTESYCAR.S.COM

The title says it all, where to find free cars to run into town for a bite or to a hotel. This new website is worth checking out when you are planning your next cross country flight.

Glenn Brasch is the owner of Airport Courtesy Cars, L.L.C. He recently retired from a second career as a Medevac Helicopter Pilot from Air Evac Services, a service of PHI Air Medical. He has thousands of flight hours and holds a Commercial Pilots Certificate with ratings in ASEL, AMEL, Instrument Airplanes, Rotorcraft-Helicopters, and Instrument Helicopters. He has instructed in both Fixed Wing aircraft and Helicopters and is the holder of an Aviation Safety Certificate from the Institute of Safety and Systems Management at the University of Southern California.

In 2014 when planning my flight to Oshkosh with my son who is also a pilot, we realized there was no one central listing for courtesy cars. We started a list, asking for input from various sources and quickly we had a list of over 700 locations. Today the list shows 2,085 cars. You can help maintain the site by making a PayPal donation to airportcars101@gmail.com or by mailing a check to Airport Courtesy Cars, P.O. Box 85762, Tucson, Arizona 85754. Your donations are greatly appreciated!

HANGAR 24

If you're looking for an interesting destination to fly to you might think about Lake Havasu City, Arizona. The airport is very modern with no control tower and tons of transient parking. The highlight of your visit will be Hangar 24 Craft Brewing. They sell their own craft beers, for your passengers, as well as a great restaurant for lunch and dinner. Hangar 24 opens for lunch at 11:00am and the dress code is very casual.



BLUSHING AND FABRIC TIPS

By John Wyman, EAA 462533, Chapter 266, Montreal

It really helps to read as much as you can about it and stick to what is said, but experiment where necessary to improve your work. Of very important note – be ultra careful with these toxic materials. The thinners and dopes rapidly soak into your skin, and their vapors burn your lungs if you're not ultra careful with personal protection. Try to limit your time in the paint booth and get out into the fresh air in between applications. If you can feel it through your mask, then it's time to change those organic/vapour cartridges. While doing the second (Cessna) wing, I splurged and went to Barnstormers and bought a pressure suit and spray system to have fresh air for the next job. The paints are just too dangerous to mess around with without the proper equipment. A few people I spoke to along the way reminded me of a story about one person who painted a whole airplane without protection (back in the day), who died a short

while later from cancer. Dangerous, dangerous stuff!

Here are some bullet points that come to mind.

- If you can FEEL an imperfection on the fabric, but not necessarily see it from an arm's length, then the anti-ultra-violet (silver butyrate dope) and subsequent colored layers of dope will show it! Before you get to this stage of applying this layer, take the time to really go over the surface and look for contaminants like dust, hairs, nicks, scratches, and anything else that "feels" questionable on the tips of your fingers. Use a "tack cloth" between applications. No exceptions!
- Make sure you've sharpened up a good pair of scissors. Regular ones quickly dull. I used a pair that was made in the '50s. The newer junk didn't compare. I also used an X-Acto blade to scrape away small imperfections. Have a steady hand using it. If you slip, it'll slice through the fabric like butter. One of the best tricks the books talked of was to apply fabric cement (glue) along the cut lines to shed any loose threads that'll make for more work later. I thinned it out with just a tad of MEK (methyl ethyl ketone) to prevent it congealing into a blob at the end of a pencil thin brush. Out of all the toxins, this is probably the most dangerous. Use a mask and barrier cream on your hands. A great cream that worked for me is Rath's pr88, which is sold in a large yellow tub. MEK is worse than acetone, but a thousand times more effective removing certain grimes and cleaning surfaces – but heck, be careful with it!
- NEVER sand bare or near-bare fabric. Make sure you have at least two coats of dope (more is better) and again, be ultra cautious sanding! Jon Goldenbaum's book talked a lot about sanding too much. It's very easy to do and hard to fix without recovering the ruined area.
- PINHOLES, or small volcanoes, will form on the surface when you apply the silver butyrate dope. Applying copious amounts of nitrate (the green-colored Rand-O-Proof) will reduce their chances of forming. The nitrate seals the fabric so the butyrate can adhere to it. Having too much air versus fluid from your spray gun can cause those excess air

bubbles on the surface, messing up the finish. If that happens, let the dope “calm down” before you sand them out. Dope works its way into each layer beneath it forming a flexible film. You can’t cover up the mistakes, only blend the layers into one another.

- A lot can be learned by just framing up a few test pieces. Make some large and small ones to simulate the surfaces being sprayed. Wood and metal behind the fabric will simulate what you are spraying. It initially may be a day’s work building them, but they are mighty handy to have around to test for “blush,” where you’ll really start shaking your head!

“*BLUSH*” forms when applying dope from your spray gun. It can form on the green nitrate, silver butyrate, or colored dope. It is tough to spot. Your lighting has to be just right (ideally at a 45-degree angle to the surface), and you have to look at the area you’re spraying from all angles. Don’t hit that gun trigger after the first few passes. Wait! It takes time to dry. Only after it dries will the blush be discernible. It forms when the humidity in the air condenses into the paint when the dew point is reached at the surface of the paint where its thinner rapidly evaporates. It is milky/paste-ish and gray/white in color. That’s the water that gets trapped. It must be removed before subsequent layers of material are applied to maintain the paint’s adherence to the next layer. Retarder is used to counter this and is particularly helpful when the temperature rises. You’ll use more thinner than retarder – so buy gallons of both! In short, blush will drive you nuts unless you respect the relative humidity. Get an accurate humidity gauge and don’t spray if the conditions aren’t ideal. I can’t repeat that enough!

I learned that maximum ideal humidity was about 55%. Anything more, forget it, and anything above 52.5%, start asking yourself if you want the extra sanding work. The books I referenced go into this in great detail, but, given their wide audience with different atmospheric conditions, they shied away from any absolutes. For me, in the Northeast, near the river, 55% was an absolute maximum.

The bottom line is that if you want to get good at fabric and spraying dopes, you’ve got to do it. No amount of explanation here will have you performing miracles in the first passes of your

spray gun. I learned a lot about it as I hadn’t tackled anything of this magnitude since I last helped Dad re-fabric the wings on the 140. The repairs were a bit different as I was using a paint gun instead of a roller, and I was blending the repaired areas into other people’s work. Light blushing can be “burned out” by just applying thinner and retarder to reactivate the surface and remove the blush by slowing down its evaporation. This saves you a lot of sanding. Heavier blush will still require some sanding. Ultimately, you’ve got to be bold enough to see what you can get away with for the prevailing conditions. You’ll gradually master it with each mistake – until it clicks. Be wary of trying to get it done too fast. You’ll only go backwards. Just mastering the paint gun takes a long, long time. The *Aircraft Painting and Finishing* book was really helpful with that. It had a whole section just on setting and holding the gun. There are a ton of terms to read up on. Do yourself a favor and re-read what you read after the mistakes. Do your homework. Finally, if you seem lost (like I was) between choosing different equipment (compressors, guns, filters, protective gear, HVLP, etc.), call up some expert friends for advice. Don’t be *SHY* to ask questions even if you’re having a hard time deciphering what the books are talking about. My friends really helped me understand the whole process. If you make it to SUN ‘n FUN or EAA AirVenture Oshkosh next year, make a point of taking a fabric workshop to get the basics. Whether you use one system or another, the basics are essentially the same.

K51 Perigrino kitplane

- K51 Perigrino kitplane being developed by same Italian company that makes the Tucano kits. Uses a Lycoming engine with an elevated back seat



ACCIDENTS / INCIDENTS

The following are the reports of aviation accidents, and incidents that have occurred in Arizona from mid October thru mid November.

Date: October 12, 2024

Source: FAA Incident

Location: Mesa Falcon Field (FFZ)

Type: Cessna 414

Injuries: 2 Uninjured

Commercial Pilot

FLAT TIRE

During high speed taxiing on the runway the aircraft got a flat tire causing damage to the fender. the

aircraft was towed back to the parking ramp without further incident. The damage was minor.

Date: October 17 , 2024

Source: FAA Incident

Location: Tucson Ryan Field (RYN)

Type: GlaStar LSA

Injuries: UNK

ATP/CFI Pilot

LOSS OF CONTROL LANDING

While doing touch and goes the aircraft ground looped, and blew out a main tire. No other aircraft were involved.

Date: October 19 , 2024

Source: FAA Incident

Location: 18 NM East of Phoenix/Mesa Gateway Airport (IWA)

Type: Piper PA-28R-200 Arrow

Injuries: 1 Uninjured

Private Pilot

FUEL STARVATION

Because of the engine issues a gear up landing was made on a road 18 NM east of Phoenix/Mesa Gateway Airport (IWA). The damage to the prop, and wing was assessed to be minor.

Date: October 23, 2024

Source: FAA Incident

Location: Scottsdale (SDL)

Type: Cessna 441 Conquest II

Injuries: 1 Uninjured

Private Pilot

LOSS OF CONTROL ON TAKEOFF

On departure the aircraft went off the runway, and into some rocks. The damage was assessed to be minor.

Date: October 19 , 2024

Source: FAA Incident

Location: 18 NM East of Phoenix/Mesa Gateway Airport (IWA)

Type: Piper PA-28R-200 Arrow

Injuries: 1 Uninjured

Private Pilot

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Date: October 23, 2024

Source: FAA Incident

Location: Scottsdale (SDL)

Type: Cessna 441 Conquest II

Injuries: 1 Uninjured

Private Pilot

LOSS OF CONTROL ON TAKEOFF

On departure the aircraft went off the runway, and into some rocks. The damage was assessed to be minor.

Date: October 27, 2024

Source: ASN

Location: Sait George, Utah

Type: Cirrus SR20 G6

Injuries: 3 Minor Injuries

Private Pilot

OFF AIRPORT LANDING

After departing Saint George Municipal Airport (SGU) the Cirrus made an off-airport landing about 5 mi south of the airport, and the aircraft was completely destroyed by fire. They had refueled at Saint George, and the airplane was unable to establish a climb after takeoff, and it appeared the pilot was attempting to return to Saint George.

Date: October 31, 2024

Source: ASN, FAA

Location: Prescott

Type: Piper PA-28-300 Cherokee Six

Injuries: 1 Uninjured

Private Pilot

ENGINE FIRE

The aircraft crashed in a field three miles east of Prescott (PRC) due to an engine fire, and smoke in the cockpit.

Date: November 4, 2024

Source: FAA Incident

Location: Scottsdale (SDL)

Type: Aviat S-2C (Pitts Airplane)

Injuries: 1 Uninjured

ATP Pilot

LOSS OF CONTROL

The aircraft went off the runway, and into the gravel. Airport operations helped remove it from the gravel, and no damage was incurred.

Date: November 5, 2024

Source: APA, ASN, FAA, NTSB

Location: Mesa Falcon Field (FFZ)

Type: Honda HA-420 Honda Jet

Injuries: 5 Fatalities 1 Serious Injury

Private Pilot

OVER RAN RUNWAY

A Honda Jet was destroyed when it crashed during an aborted takeoff attempt at Mesa Falcon Field Airport (FFZ). Four occupants of the aircraft, and the driver of a vehicle on Greenfield Rd. perished, and a person on the airplane was seriously injured. ADS-B data suggests the airplane had accelerated to about 133 knots groundspeed before it aborted the takeoff roughly 3400 ft down the runway. The airplane was unable to stop, overrun the end of the runway, and went through the airport perimeter fence before crashing into a vehicle on North Greenfield Road, and a post crash fire ensued. The estimated distance between the end of the departure runway and the aircraft final resting position was 700 ft.

Date: November 5, 2024

Source: FAA Incident

Location: Mesa Falcon Field (FFZ)

Type: Piper PA- ???

Injuries: 1 Uninjured

Student Pilot

LOSS OF CONTROL LANDING

The student landed and went off the runway into the unpaved area between the runways. Airport Operations towed the aircraft to parking, and no damage was reported to either the aircraft or airport.

Date: November 7, 2024

Source: FAA

Location: Prescott (PRC)

Type: Cessna 172

Injuries: 2 Uninjured

Pilot Certification Unknown

TAXIED INTO FENCE

While taxiing in a non-movement area the Cessna's right wing struck a fence, and the aircraft sustained substantial damage.

Date: November 8, 2024

Source: FAA Incident

Location: Casa Grande (CGZ)

Type: Piper PA-44-180

Injuries: 2 Uninjured

Pilot Certification unknown

GEAR UP LANDING

The Piper Seminole made a gear up landing, and the damage was minor

Date: November 9, 2024

Source: FAA Incident

Location: Phoenix/Mesa Gateway Airport (IWA)

Type: Cessna T240 (Columbia 400)

Injuries: 1 Uninjured

Pilot Certification Unknown

RUNWAY EXCURSION

A major portion of the runway was closed, but the Cessna Columbia elected to land on the short open portion of the runway. However, the aircraft rolled into the closed portion of the runway impacting runway lights. The resultant damage was minor in nature

Date: November 17, 2024

Source: ASN

Location: Near Cordes Lakes

Type: Cessna 172L

Injuries: 2 Minor Injuries

Pilot Certification Unknown

INFLIGHT LOSS OF POWER

The aircraft departed Phoenix Deer Valley Airport (DVT), and crashed during an attempted forced landing following an inflight loss of engine power near Cordes Lakes.

Thunder Ads

AIRPLANE MOVER FOR SALE

Gasoline powered.

Terry Emig 520=705-8385

CURTIS F11C-2 "GOSHAWK"

Built by John Pike. R-1340 (600 HP). Less than 120 hours TT since new. Becker com & txpdr, Garmin ADS-B, 20 gal smoke tank, 102 gal fuel, <https://CaptainBillyWalker.com>
480-773-2823

LONGEZ AND SONEX Two airplanes for sale at Thunder Ridge air park (AZ28), a 180hp LongEz and a 120hp Sonex. Contact Bertha Partin at bmartin@gmail.com

COOL PLANES FOR SALE Only flown by little old ladies to church on Sundays.
<http://captainbillywalker.com/aircraft-for-sale/aircraft-for-sale>

THATCHER CX-4 PLANS & MANUAL New, never used, donated to our Chapter. Curtis 602-710-4494

RV-4 PARTIALLY BUILT KIT \$13,500
Lycoming O-290-D2, kit for \$3,000 or \$16,000 for both. Wanda Refrow 602-843-9862
w7lov@cox.net

LYCOMING O-360 A1A Engine built up for RV project never completed. Invested \$50,000. Price very firm at \$25,000. Martin Del Giorgi delgiorgidelgiorgiopels@gmail.com

Chapter member owned. R & E Cooler Service
800-657-0977 www.oilcoolersvs.com

FLIGHT INSTRUCTION, ETC. Airplane:
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