EAA THE SPIRIT OF AVIATION

RUNWAY 35

The Official Newsletter of EAA Chapter 35, San Antonio TX

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Inside this Issue

Next Event

July 14, 2018

Fly-In Breakfast
1000hrs-1200hrs

Chapter 35

Clubhouse

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A BREEZY AFTERNOON

By Jim Humphries

Norris Warner and I were talking at lunch at a Saturday meeting of EAA Chapter 35. He told me about building a Breezy. He described the airplane, refreshing what I knew about it from past experience. The airplane is well-named because it's more than just an open-cockpit, high-wing pusher airplane. Breezy is one hundred percent open-air flying - perched on tandem seats completely out in the breeze, without so much as a windshield between you and the oncoming air. Yes, Norris was describing the Breezy I knew. But you know what? He loved that strange, iconic airplane. As he described it, his excitement was evident, and soon I was hooked with his promise of an adventure in his Breezy one fine day. His was a sincere invitation that he intended to keep. He wrote down my phone number, and promised to call me as soon as his health improved.

I saw Norris at several Chapter meetings after that. But it was obvious, his health wasn't getting better with the passing of time. One day the phone rang, and it was Norris assuring me that he hadn't forgotten his promise to give me a ride in the Breezy. We met again at another chapter meeting, and I commented that he was obviously improved, for he looked stronger and seemed to have put his physical troubles behind. But he said, No, his back was still very painful, and that he wasn't flying any more. I was afraid I might not hear from him again after that, and more time passed.

Then one Friday morning, with the sky blue and almost no wind at all, the phone rang, and

(Continued on page 4)

See the Massive Mike Logan Memorial Grinning Griddle

Saturday, July 14th @ 0900hrs

PRESIDENTS COCKPIT — STEVE JONES

An Investment in the Future. Jose Garcia, our Public Relations Officer, will be attending the EAA Leadership Summit in October. This two-day conference brings 45 chapter leaders together from across the globe to learn more about the mission of EAA headquarters and the services our headquarters makes available to each chapter. It gives each leader a forum to share their thoughts and experiences with one another as they face challenges and create opportunities within their own chapters. EAA offers this summit and hosts our chapter leaders at the Air Academy Lodge at no expense to the chapter. We provide transportation. It's an outstanding opportunity to see some of the many ways EAA reinvests to advance experimental aviation.

sUAS Airman Certification Standard Revised. Recurrent knowledge testing is now required for Part 107 Remote Pilots except those holding a Part 61 certificate who have a current flight review. The changes are covered in FAA-S-ACS-10A "Remote Pilot – Small Unmanned Aircraft Systems (Certification and Recurrent Knowledge Testing) Airman Certification Standards." This document is available here: https://www.faa.gov/training_testing/testing/acs/media/uas_acs.pdf

Pancake Breakfast Fly-In. Are you ready for some pancakes? We're holding our second pancake breakfast fly-in of the year Saturday, July 14th, 9:00 AM to Noon. We're holding out hope for great weather so we can roll out the (stealth) memorial Mike Logan Grinnin' Griddle, a 4-foot diameter monster machine powered by propane and electricity. We'll be looking for ground support personnel to help man this crew-served weapon of mass consumption! Do you like the smell of cordite? Does it sound like Freedom when the loader shouts "Ready!"? Let our facility manager, Freda Jones, know you're interested in crewing for the mission. This will be in-garrison, at the Chapter Clubhouse.

Membership Picnic. Sixty members and guests got together for our membership appreciation burger burn and talent showcase. Freda Jones and crew put forward the best burgers we've grilled in a long time. I know, I saw the shopping list and the wholesome ingredients. The Facility Team is really stepping up their game! And, it didn't stop there. Our member volunteers brought it too, with fantastic desserts and sides. This was no ordinary picnic!

Talent Showcase. Mary Ann Schlattman and Jim Humphries showed us their skill, their passion. Mary Ann wowed us again with her exquisite bead work and jewelry. Jim Humphries showed us how to transform wood into magical working sculptures and incredibly detailed models.

Movie Night. Fifteen members and guests gathered to watch 'Memphis Belle'. Like the picnic, our members made mastery of pot luck. Facility manager Freda Jones grilled hot dogs and set out the condiments and macaroni salad. Our members brought cookies, chips, dip, etc. Then we got to the business at hand. This movie, released in October 1990, took us on a 1h 47m journey into the past. The scene opened on a sultry spring afternoon in May 1943 at a US Army Air Corps base in England. The four officers and six enlisted men of the Memphis Belle - a B-17 bomber so nicknamed for the girlfriend of its stern and stoic captain, Dennis Dearborn - would soon start their twenty-fifth mission, having completed their previous twenty-four successfully with nary an incident, while fewer and fewer other planes were coming back from their missions at all. If they completed their next mission successfully, a dangerous one into enemy territory over the skies of Bremen Germany, they would be the first Army Air Corps B-17 Crew to complete their tour of duty. The movie was great and the company was awesome!

AirVenture 2018. Show the flag! AirVenture 2018 promises to be the biggest convention yet. Join your fellow members at the AirVenture Brown Arch for a group photo. Several members are planning to showcase our new Chapter 35 'Texas, Through and Through' adventure shirts. If you don't have your Texas shirt yet, and want to show the flag, be sure to get your order in with Brian Goode as soon as possible.

What Would We Be Without You? Your chapter, over 120-strong, needs you. Do you have a skill or experience you want to share? Do you see something that needs just a little of your time to make it right? Lew Mason manages a unique resource, our chapter hangar. Nancy Mason recently hung up her gloves as Grounds Keeper (although I did see her sneaking in some work on the flower beds at the last clean up) Joe Killough, 85 years young, recently jumped on a lawn mower to spruce up the joint. It's hard work and it's rewarding, knowing that you contribute to the well-being and success of your fellow members.

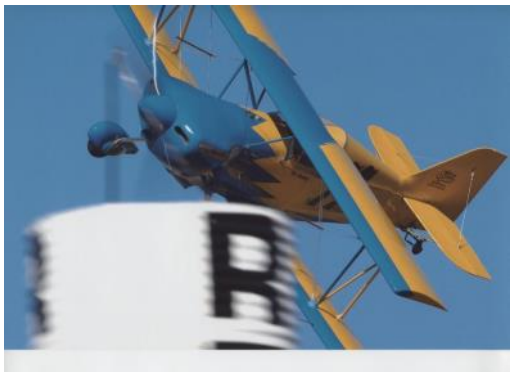
Until we meet again, fly safe and have fun doing it.

SPEAKER SPOTLIGHT — DARREN MEDLIN

August Guest Speaker

Richard Beardsley-Racing @ Reno

Rich Beardsley spent his working career as a professional pilot. He worked for a number of different airlines for over 40 years. He worked for an outfit called Southern Air Transport working mainly for the military. During his tenure there a fellow pilot got him interested in flying biplanes. The friend had been racing



at Reno and talked Rich into joining him which led to 12 years of some of the most exciting flying of his life. Rich will be joining us August 11 to share some of experiences, both on the race course and overseas.

CHAPTER BULLETIN BOARD

Chapter 35 Pancake Breakfast Fly In Redux

Main Course: Fluffy Flapjacks formed on the **Massive Memorial Mike Logan Grinnin' Griddle**! (sure, you said that last time!)

Side Dish: Pancakes. Oh, sausage, too.

To Drink: Orange Juice, Coffee, and water

Desserts: Pancakes. (my, they're versatile!)

Shout Out: Thank you to all our volunteers and preparers who supported the membership appreciation burger burn!

Preparers

- Mary Ann Schlattman – Dessert table setup
- Roxanne Beavers – Cooking and serving
- Steve Shepard – Picnic table cleanup

Contributors

- Steve Shepard – Fruit bowl
- Nancy Mason – Baked beans, cheese cake
- Dee Brame – Apple pie, cookies
- Roxanne Beavers – Cole slaw
- Frank Pisz – Jello cake
- Lynn Morgan – Baked beans
- Ulf Balldin – Pecan pie
- B.J O'Dea – Fruit salad
- Ron O'Dea – cookies
- Frank Covington – Watermelon
- Georgie Brown – Brownies
- Raymond Carr – Salad
- Gail Scheidt – Ice cream
- Michael Smith/Susan Robetorye – Butter cake

A BREEZY AFTERNOON CONTINUED

(Continued from page 1)

it was Norris. "How would you like to go for a flight this afternoon in the Breezy?" he asked. He meant flying that very day. I was available and could accept his invitation without changing any plans I might have had. The day before I had started preparing a Bible lesson for my Sunday school class. Saturday was full, and I knew I wouldn't have time to prepare my lesson. It's easy to talk oneself out of doing lesson planning when I thought I would have all day on Friday to write a good lesson. But an old Bible verse popped into my mind on Thursday, reminding me to seize the moment, and get the lesson done. The verse was Matthew 6:33, which read, ***"But seek ye first the kingdom of God and his righteousness, and all these things shall be added unto you."***

For once, I listened to that assurance, and went straight to work. Before the day was done, I had a lesson to teach on Sunday morning. so my slate was clean the next day when Norris' call came. "I'll be there!" I replied, and wrote down directions to his home near Medina Lake.

I opened my cell phone to the GPS map, and mentally followed his instructions. It looked like a long trip, but the mileage was only 49 miles from my house to his. He wanted me there at three-thirty. I ate a quick bite of lunch and got in my Toyota Camry and headed his way. I would take Bitters Road to 1604, then Highway 16 to Pipe Creek. Turn left onto Highway 1283 at the stop light at Pipe Creek, and head south for Oak Hills Road. His directions were spot-on. No surprises or confusion along the way. In another five miles, Oak Hills Road showed up, clearly marked. I drove east for 3/4 mile, and turned into his driveway, ten feet past a dumpster on the left side of the asphalt road. A gravel path led to his house. It was an older ranch house with a couple of close-by buildings, one of which I learned later was a hangar and workshop. I parked on the right side of the house as directed, and went to the door, aware that I was a half-hour early.

Norris heard my knock, and called for me to come in. We sat in the living room for a while as he told me the story of his Breezy. The construction of the airplane was a joint effort with several investors/builders involved. There had been some unpleasantness among the group of owners, but, in due time, the airplane was completed. There was a note of sadness as we talked. Norris had lived in that house for many years. He told me that his first wife had passed away. Later, he re-married, and his second wife also passed away. So he lived there all alone with a house full of memories. He commented that he kept busy restoring a small collection of derelict airplanes in his adjacent hangar and at the airport. Norris checked the time, and said it was time to go to the airport where we would be joined by his son, Norris II and wife.

Norris lived just a mile or so from the Medina River Ranch Airport. He explained that he wasn't well enough to fly the airplane, but he had arranged for his son, Norris II (not Norris, Jr., but Norris Two.) to give me a flight. We hopped in his pickup truck and were soon on the way to the airport. I had seen a few Texas ranch strips before, namely Russ Luig's Flying L Ranch near Bandera. But this was very different. The airport, I was told, was first built in 1929, and had changed little in the interim. It's run by the Medina River Ranch Airport Association. Norris drove across highway 1283 and turned into an unmarked driveway barred by a metal gate. He got out, unlocked the combination lock on the gate, got

back in his pickup, and drove a car-length along a grassy, single lane path once inside. Then he dutifully got out of his truck again, and closed and locked the gate behind us. I saw no airport ahead, and there had been no signs along the road. Ahead were just the twin car tracks through the grass, leading up a short hill. We came over a rise at the top of the entrance hill, and there, spread out before us was a two-hundred fifty-foot-wide grass runway. We drove north down the runway to a small metal hangar near the opposite end.

(Continued on page 5)

A BREEZY AFTERNOON CONTINUED

(Continued from page 4)

Along the way we crossed an intersecting grass runway. We pulled up on the north side of the hangar, and parked the truck. Norris was soon out, unlocking the hangar doors, and swinging them open.

I could see the front of the Breezy as the doors opened, filling the hangar with daylight. We had no sooner opened the hangar when Norris II and his wife, Mary, drove up and got out to help us get the airplane fueled-up and out of the hangar. The airplane was a classic Breezy, just as I had remembered. She was a pretty sight with a big, bright yellow high wing - inspired by the Piper Cub's wing. But this wing on the Breezy was built from scratch as the plane was being built. Norris and his son went straight to work, pumping 87 octane Av gas (with no Ethanol) from a 55-gallon drum into a large plastic funnel-can. Norris II hoisted the heavy can of gas onto his shoulder, and climbed up on the rear bench seat to pour the contents into the wing fuel tank. The can of fuel was bulky and nearly full, but Norris II was a big man and heaved it up into position and began pouring the gas into the wing tank. With the tank filled and secured, all of us joined forces to push the plane out of the hangar onto the grass outside.

I had been cautioned to dress warmly because the flight was sure to be chilly in the late November afternoon. I took the advice seriously, and layered up with long handles, a sweat shirt, and a winter flight jacket with a fur-lined collar and scarf. Yes, a hat too, for I had only a few hairs to keep the top of my head warm. But when Norris II and Mary arrived, I was aware that I might have over-dressed for the occasion. Both were in in shorts and short sleeved shirts. Norris II was wearing open sandals without socks. At any rate, I doubted that I would be chilled.

Let me describe this strange airplane in more detail. I walked around it, making note of its features. You wouldn't believe a written description of the Breezy if you hadn't seen one before, but the photos will make it all quite clear. I wasn't exaggerating! This was a wide-open airplane! The fuselage was a welded-steel-tube structure. A sled-like platform with a tricycle landing gear projected forward along the ground completely ahead of the wing. On this gurney-like structure were mounted a pilot's seat up front with a single-occupant bench seat directly behind the pilot. Narrowing the rear seat to accommodate only one occupant allowed the airplane to be licensed in the Sport Pilot category with it's all-up weight below 1320 pounds.. Each seat had a control stick, and I was shown a press-to-talk intercom switch on the passenger's stick.

The engine, a Continental 90-12, rated at 2660 max rpm, drove the rear-mounted propeller which was mounted high, behind the wing in a pusher configuration. Each wing tip had a flat end-plate painted orange. Aft of the rear wheels extended an uncovered, welded-steel-tubing tail section which sloped up to carry the tail feathers, a horizontal stabilizer and elevator, and a fin and rudder, all painted orange. Norris told me that the original Breezy had tail surfaces too small, which made the airplane "squirrely," (harder to fly) and that subsequent versions had the thirty-percent larger tail group that his airplane carried. A welcome addition on this Breezy was an electric pitch trim. An air inlet on the leading edge of the wing was covered by a black, gauze cloth screen which served as a filter. A rectangular air intake duct dropped down behind the passenger to the engine intake in a backward "s" profile. The fuselage tubing was all painted white. The nose wheel was fitted with a fender, and the main wheels were in streamlined wheel pants. Norris II and his dad had been busy pre-flighting the airplane, and now invited me to get strapped-in.

The first order of business was to empty my pockets of anything that could get out and fly through the propeller behind me. That included my cap, and then my cell phone, loose pens, and pocket knife, and whatever. Afterwards, when I showed the photos to our son, John, he was quick to suggest that I wear a cap like Norris had on. He and I have the same genes concerning head hair, and he could see his future in my bald head.

(Continued on page 6)

A BREEZY AFTERNOON CONTINUED

(Continued from page 5)

I explained why I didn't wear my cap (even for cosmetic purposes), and he was satisfied. Norris hovered over me like a daddy, helping me get strapped in, putting on a pair of tinted goggles and a headset. He showed me where to put my feet, and how to communicate with the pilot. When I was all ready in the back seat, Norris and his son discussed the flight, and we were set to go. "Clear!" shouted Norris II, and the engine came to life. We taxied away from the hangar, and angled up the sloping runway to do an engine run-up away from Norris and Mary, who were sitting on the car to watch our takeoff. With that done, we taxied back to the north end of the runway for takeoff.

The sun was low on the western horizon as we began our takeoff roll. It was nearly five o'clock when Norris said, "Let's go!" Slowly the Breezy accelerated, going uphill and into the wind. Nothing happened fast during the takeoff roll. The field was bumpy, and we bounced along picking up flying speed . 'The stick came back at 50 mph, and the airplane lifted off the grass. Almost immediately, I could see Medina Lake not far off to the southwest. As we climbed, I was comfortable, enjoying the wind in my face, sitting erect like the Wright brothers on their improved Flyer in 1905. This was exhilarating. We leveled off about a thousand feet, set up a cruise at 60 miles an hour, and headed for the lake. During the climb, I extended my arms straight out on both sides, and felt the joy a kid knows when sticking his arm out of a moving automobile, and flying it up and down by changing the angle of attack of his hand. The sensation of flying was there in spades.

Norris asked if I'd like to fly the airplane, and I was ready to see what cruising at 60 miles an hour felt like. His instruments were in the floor ahead of him. But I had none in the back seat. I could tell that he had trimmed the plane for level flight before giving it to me. So I turned the nose toward the s-turns in the river that fed the lake from the north end. Approaching the lake, I tracked the turns in the winding river. Controls

were light and responsive. Without a turn and slip indicator, I felt like the ball was out of trim, and we were in a slight sideslip with hands off. But riding a rudder pedal didn't feel right either, so I assumed that we were reasonably close to coordinated flight. I confess, I would have liked to take just a peek to confirm what I was feeling. When flying in other people's airplanes, each type required a different amount of rudder to initiate turns. At sixty miles an hour, it took very little rudder, and I eased off leading turns with rudder. We were only a block or so inside the borders of the lake, when I turned east and crossed it in a turn back toward the airport. I had experienced losing situational awareness when flying airplanes when I wasn't the pilot in command. This time, I kept in mind where the field had to be, and turned back. I could see highway 1283 which paralleled the runway on the east side. But picking out the grass strip with long shadows across it as the sun was setting was not obvious. All I could do was to keep heading for what I thought was the airstrip. I was close, but couldn't pick it out without circling. It was time to turn the controls over to Norris, who already had the field in sight.

He entered the pattern on a downwind leg, and started a descent as he turned from base to final. We slowed to fifty miles an hour as he set up a shallow glide to the runway. I felt a gust or two as he flared, and then we were down and speeding along the grass. When we stopped, Norris asked if there was anything else I wanted to see or do in the Breezy. I suggested we take it around the pattern once more for a full-stop landing. My wish was his command, and away we went as I again enjoyed slow flight at low altitude. His second landing was evidence that he could do that every time. We taxied back to the hangar to be greeted by Norris Sr. and Mary. I thanked Norris II for the great flight, and we put the airplane back in the hangar.

I had worn a new pair of Air Force flying gloves, made of soft gray leather and Nomex. I showed them to Norris II, and explained that I had kept them in a dresser drawer for almost forty years since I retired from the Air Force. He tried them on, and it was obvious that they should be his from that moment on. I know he'll enjoy them. We said goodbye to Norris II and Mary, and Norris took me on a tour through an adjacent hangar. In it were treasures from his years of working with airplanes. There was a modern gyro copter in one corner, and a

(Continued on page 7)

A BREEZY AFTERNOON CONTINUED

(Continued from page 6)

beautifully-constructed wooden wing covered elegantly in thin plywood. And there was a high wing, STOL airplane like a Maule Rocket of his own design. He claimed that with its Ford V-6 engine, turning at 4200 rpm, and powering the propeller at 2150 rpm through a reduction belt-drive, the plane would out-perform the production Maule!

We drove back to his house, and walked through the hangar that I had seen earlier. He had a Luscombe Silvaire disassembled and under re-construction. Everywhere were aircraft projects, and I could see that he had enough to keep him occupied for a lifetime. If anybody could bring those dry bones back to life, it was surely Norris. I thanked him for a grand experience, and headed back to San Antonio just after sunset. Along the highway, the sunset was glorious. I glimpsed it through a gap in the trees, but couldn't stop. A photo of that sunset would have been a fitting picture of the close of a perfect day. But I continued toward home to share my fine adventure with my wife, Marsha. My thanks go to Norris and his son and wife, Mary, for a memorable day on the wing.

PRIMER ON PILGIMAGE TO OSHKOSH

CHUCK FISHER

It is already OSH time again. Are you going? As you know there is always a pretty good turnout from our chapter, but there always seem to be a lot more that scrape their toes on the ground and look at the grass saying…"I was going to go but….". Is that you?

So, yes it can be a little intimidating looking forward, but it should not be. Here is a quick synopsis for those of you sitting on the fence.

Flying to OSH: We launch from 8T8 and break the trip into comfortable bladder length legs. We are fortunate enough to travel with another plane, and if you can join up with someone I'd encourage you to do so. Ask around, check on your web-boards or ask on Facebook. I'll be you could find a travelling partner.

Our route takes us to North Texas Regional. Generally we go up I-35 and swing east of the class B if they don't clear us straight through. North Texas is good sized airport without much activity. There is a nice FBO with hot cookies and cold drinks there.

Next we'll take a sojourn across Oklahoma and southeast Missouri. I can tell you the latter is a lot prettier. We stop at Boliver, Missouri. This is a small country airport with a small café and genuine friendly folks. Pump it yourself gas, but at least when we've been there folks have been eager to help push planes or pump gas.

Then we proceed on up to Davenport, Iowa. This is a big airport again without too much traffic. The FBO is very nice and they'll throw you a set of keys and find a home for your plane with a smile. This is a convenient place to overnight and the hotels aren't too expensive. Of course you can head direct up to OSH if you have remaining time and butt capacity. With the longer days you probably will have enough light.

The next morning we top off and fly the short flight on up to OSH. In my plane it's only about an hour and a half. Airspace will be really busy so expect to be VFR without flight following unless you filed IFR in advance.

The arrival into OSH is what usually scares people. I have to admit that I cheat and do the Warbird arrival which is really just a big straight in pattern, but the other arrivals are easy too. Basically you'll pick up bold landmarks in the flat countryside like railroad tracks and clearly marked cities and fly 100 miles an hour up those toward OSH. Pretty soon you'll be in a string of aircraft maintaining spacing from the one in front. Gear down, lights on, and listen to the radio.

The controllers will call you out by your aircraft color and type (Yellow Cessna you are following a silver Piper, rock you wings"). You acknowledge with a wing rock and you've established positive communication. In a few minutes the runways at OSH will come in sight and you will most likely already by lined up on downwind. The runways (2 north/south and 1 east/west) have massive, round, colored spots 1000 feet apart. The controllers will assign a landing spot based on your position and your landing speed. If there is a jet landing, they'll extend your downwind, but typically you'll just do a base to land on your quarter of the runway.

"Yellow Cessna, orange spot, cleared to land, welcome to Oshkosh". Turn to base and land approximately on the spot. This is not a spot landing contest, the guy behind you if there is one is at least 1000 feet back and has you in sight. Just make a decent landing and don't slam it on the ground.

You'll taxi off the side of the runway onto the grass and be directed by a bazillion volunteers to a parking place.

You should decide beforehand where you want to park. If you want to camp, there are big camping under the wing areas (like thousands of planes) on the North and South end of the airport on the grass.

PRIMER ON PILGIMAGE TO OSHKOSH CONTINUED

There are hot showers and a store at each end. The "North Forty" is generally the first to fill up but both are served by the continuously running shuttles. Throw up your tent under the wing and commune with several thousand new friends. Bring your Texas flag!

There are places for trailers, if you drive and want to camp, as well.

If you want to stay off airport, there are dorm rooms at the local college and folks rent out rooms in their houses as the entire city flees during the event. Generally the houses and hotels book up months in advance, but dorm rooms may still be available. I think Steve and Darren have stayed in some off-campus facilities.

There are shuttle buses that will take you everywhere including in town to shop at Walmart and Target, and there are lots of resources right on the airport.

Yes, you can drive, and if you have no choice do so – I've done it twice and actually it was a pleasant journey each time.

There are classes and conferences not just in the 12 training pavilions, but in workshops, federal venues and vendor venues all from about 8-3 every day. There are evening sessions, meetings, movies and presentations, and every afternoon from midafternoon to dusk there is a continuous non-stop airshow with all of the biggest names in the industry and some you probably have never seen. Two night there is a pyrotechnic-rich nighttime airshow (read high performance cloth airplanes with fire coming out of them...hmmm) followed by a fantastic fireworks extravaganza.

At the end of your stay, after wandering among 10,000 aircraft including some of the rarest flying on the planet, thousands of planes you wish you could own, seeing and playing with every gadget imaginable, and communing with thousands of pilots who are there just because....you'll stuff everything back in the plane, top of the tanks, taxi out and head south the same way you came. You stay low on departure until you are clear of the incoming traffic funnel, then you have the sky to yourself. Pick up flight following sometime past Madison and just keep flying south.

We generally break the trip up again, this time stopping at North Texas and staying either in Sherman, or if you have some extra time, try the Tanglewood Resort on Lake Texoma.

If you are like me, sometime about the day before you leave you'll start making an inventory of all the things you wish you would've seen or done, and that'll rattle around in your head in the smooth air across Wisconsin. Next Year.

You learned to fly, have a plane, and have the freedom to just jump in and do this. That is what AirVenture celebrates. Are you coming?

JUNE MEETING– SEE MORE AT https://www.facebook.com/eaa35/

RICHARD POENISCH

The June meeting wasn't really a meeting at all, as no meeting was held. It was a membership appreciation **picnic**. We had a great turnout, with over 60 members and guests in attendance. Many of the members showed their other talents, such as jewelry-making and wood sculpting. The food, burgers and hot dogs, were excellent and were expertly prepared by our Facilities Team. My compliments, ladies and gentlemen, on a job well-done!

In addition to good food, the talent displays were a showcase of the talents in our chapter, and they brought out the breadth of experience that we, as a chapter, have at our disposal. If you are building, PLEASE make use of these wells of knowledge. I know that I have used and will continue to use them. We have computer skills, electrical skills, mechanical skills, woodworking skills, and many others that our members have developed over their careers. We have A&Ps, CFIs and CFIIs, IAs, AMEs and others who are not titled, but have been using these same types of mechanical, electrical, organizational, and problem-solving skills all their lives.

Myself, as a new member (less that a year) of the chapter, feel like I am in college again. The number of people who are very knowledgeable in their fields, and willing to share it with no thought of compensation, to others who are less knowledgeable (like myself) is just mind-blowing.

I feel blessed to have found a chapter that has the knowledge, resources, and most of all, the drive to make this such a dynamic chapter. Our members are our greatest resource and I feel we are blessed to have SO many fine and talented members who give so freely of their precious time and talents.

That is MY membership appreciation statement.








JUNE MEETING– SEE MORE AT https://www.facebook.com/eaa35/ **PHOTOS BY RICHARD POENISCH**













THE BUILDER'S CORNER

Mark Julicher

Extra Instruments

What good is a voltmeter or ammeter? If you do not understand what they tell you then the answer is, "No good at all."

In three recent instances of electrical failure I have asked the respective pilots what the voltmeter or ammeter was showing prior to losing the battery. Three for three times the answer was, "I don't know, I never look at that." That is not very helpful to the mechanic that must troubleshoot. Lets look at these very simple instruments and learn what valuable information they supply.

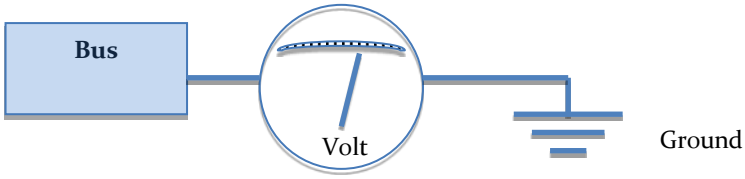
In the following discussion assume a simple aircraft with one main bus, and sub-buses, if any, are powered from the main bus. I shall use the term generator, but alternator equally applies in this context.

Voltmeter

A voltmeter is connected from bus to ground. It shows the present voltage at the bus. When you first turn on the master switch, the voltmeter shows the voltage of the aircraft battery. It should show more than 12 volts for a 12-volt battery because a fully charged 12-volt battery will be about 12.6 volts; however, 12.4 volts or better is very good. If the voltmeter shows 12.0 volts the battery is *not* charged, but about 50% of capacity.

Once the engine is running and the generator is on line, the voltmeter should show about 13.5 to 14.5 volts, maybe a bit more or less. It takes about 1.5 volts to overcome the internal resistance of a battery and cause it to recharge. So if you see about 14 volts you know that the generator is doing its job. As you actuate various circuits and place more or less demand on the bus you may see the voltage vary a bit as the voltage regulator adjusts the output of the generator.

The voltmeter has a very high internal resistance, otherwise it would be a short circuit from bus to ground and that would be bad.

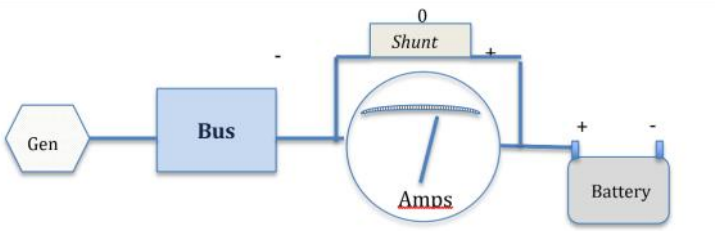


Ammeter

An ammeter is placed in series between the battery and the bus. Typically the ammeter has zero in the center and can show positive and negative amps. Positive amps means that the battery is receiving charge, negative amps means the battery is supplying more electricity that it is getting from the generator.

When you first turn on the master switch the ammeter shows negative or discharge because the battery is supplying all the electricity to the various circuits. On initial engine start you have just used a large amount of electricity, the ammeter should show a large positive number. This is current recharging the battery. As the battery becomes recharged, the ammeter will show less and less positive. Sometimes the ammeter appears to show zero current when the battery is fully charged but there should always be some small positive charge. If you are not sure, actuate a system that has a large current draw and watch the ammeter. Try turning on the strobe, electric flaps or incandescent landing light. The ammeter should deflect to negative briefly but then immediately return to positive as the voltage regulator increases the output of the generator. If the ammeter does not swing positive then you are consuming battery… the generator is not working, refer to POH.

Ammeters have low internal resistance. Some ammeters are able to accept the entire output of the generator while other ammeters rely on a shunt (a calibrated resistor) to take the majority of the current.



Load meter

A load meter is an ammeter that is placed between the generator output and the bus. It shows the output of the generator. It may be calibrated in amps and show the ampere load on the generator or it may be calibrated in percent and show what percent of the generator's rated output is being delivered. A load meter will have zero at the left of the dial. If all avionics are turned off the load meter will read only how much current is being delivered for battery charging. As more and more electrical items are turned on, the load indication will increase. As the load increases toward maximum you can be assured the generator will get very warm. When you add avionics to your plane the avionics technician recalculates the load vis-a-vis the

(Continued on page 14)

JUNE MYSTERY PLANE REVEALED

DOUG APSEY

Congratulations once again to Ira Wagner and Charlie Brame for correctly identifying our June mystery airplane as the General Aircraft Corporation's G1-80 Skyfarer. One of our readers didn't have the answer but did a great job of describing its appearance when he said it looked like a Tripacer and an Ercoupe had a baby!

The Skyfarer was a high wing two seat cabin monoplane designed by Dr Otto Koppen, a professor of aeronautical engineering at the Massachusetts Institute of Technology. The initial flight occurred sometime in 1940. It had a typical tube and fabric structure and was powered by a 75 hp Lycoming GO-145-C2 geared air-cooled four-cylinder engine. The Skyfarer had a wingspan of 31 ft. 5 in. and an empty weight of 890 lbs. Gross weight was 1350 lbs. Maximum speed was 144 mph with a cruise speed of 100 mph. The airplane was first certified in 1941.

The Skyfarer had a unique tail unit that incorporated aerodynamic control principles covered by patents belonging to Fred Weick who designed the Ercoupe. The tail consisted of a cantilever tailplane with the elevator mounted on the upper surface of the rear fuselage. The twin vertical fins had no movable rudders thus no rudder pedals, just a control wheel for the aileron and elevator control similar to the Ercoupe. Also like the Ercoupe, the Skyfarer was said to be spin proof. An article in the September 1941 issue of *Popular Science* stated that the "average person could learn to fly the airplane in just an hour or so."

The General Aircraft Corporation was established specifically to manufacture the G1-80 in the early 1940's. The company built seventeen G1-80's before production was stopped as the US entered WWII. The rights and tooling for the Skyfarer were passed on to Grand Rapids Industries who built only two aircraft before stopping production. Grand Rapids Industries passed on the equipment, tools and one of the finished planes to Western Union College. The school was able to find investors and formed the Mars Corporation in 1945 with plans to resume production of the design as the Mars M1-80 Skycoupe. Only one was built before the facility to manufacture the aircraft was sold in 1946.

Looking at the FAA database, there appears to be only one G1-80 registered in the US at this time. It is tail number 29030, serial number 17, and belongs to the Plymouth County Historical Museum in LeMars, Iowa.

http://1000aircraftphotos.com/Contributions/Shumaker/3027.htm

Although General Aircraft was unsuccessful in its attempt to enter the light airplane market, during WWII it was one of the 16 prime contractors building the CG-4A Glider for the USAAF. The company produced 1,112 CG-4A's by the end of the production run. In 1969, General Aircraft was still in business and bought the Helio Aircraft Company which produced another Otto Koppen design, the Helio Courier. They produced the Courier until October 1976 when they sold the production rights and assets.

Sources for this article include:

https://en.wikipedia.org/wiki/General_Skyfarer

http://www.lemarssentinel.com/story/1076105.html

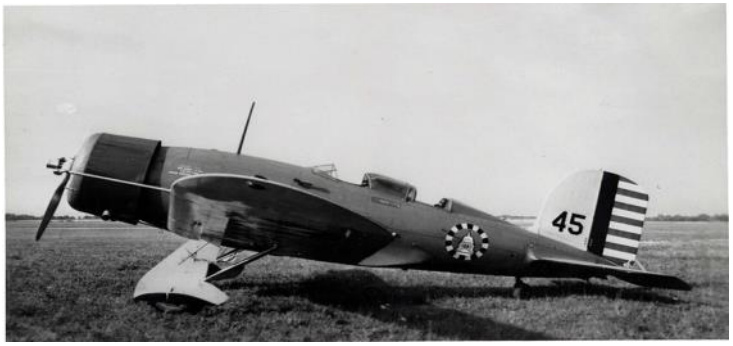
NAME THE PLANE

DOUG APSEY

July Mystery Airplane

Here is your Mystery Airplane for July. Who will be the first to email me at dapsey@satx.rr.com with the following information about this unique little airplane?

1. Who designed and built it?
2. What is its civilian designation and name? i.e. C-172 Skyhawk, PA-24 Comanche, etc.?
3. What is its military designation and what did the military use it for?
4. What year did it first fly?
5. How many were produced?



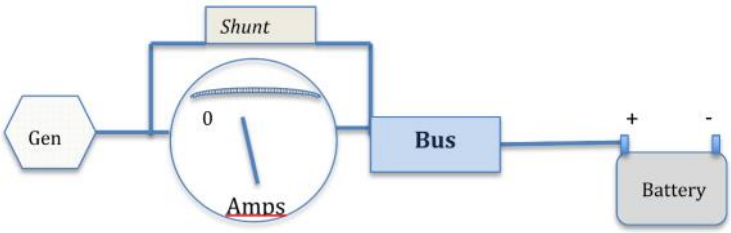
BUILDERS CORNER

CONTINUED

(Continued from page 12)

ability of the generator to supply the required current. It is entirely possible to ask too much of your generator and necessitate an upgrade in its capacity.

The load meter tells you if the generator is putting out, but a load



meter alone offers no information about the health of your battery. You can be certain that if the load meter reads zero then the generator is dead and the battery will soon follow. Do you know how to reduce your electrical load to conserve battery? You should!

I hope you now have a better idea about what those extra instruments are telling you. Don't allow yourself to be surprised when the radio goes scratchy and the cockpit lights go out. And for goodness sake, if you do get caught at nighttime and you can't do a blacked-out landing then go somewhere with good lighting. Have a plan!

Here is one last word for homebuilders. The old mil-spec required that any instrument read no more than 2/3 deflection at its normal maximum position. That prevents burnout of the sensitive coils in the indicators. It is good practice.

Pop Quiz: Identify the Ammeter

SAFETY CORNER

FAA SAFETY TEAM

Advanced Preflight after Maintenance

Did you know that maintenance-related problems are one of the most deadly causes of accidents in general aviation? Contributing to this is a pilot's failure to identify maintenance discrepancies because of a lack of knowledge and improper techniques used during the preflight of the aircraft.

In July 2014, the pilot of a Piper PA-12 Super Cruiser airplane was fatally injured after his airplane pitched up steeply during takeoff and crashed. The investigation found that the elevator control cables were installed incorrectly such that the elevator moved in the direction opposite to that commanded. The preflight checklist for the airplane required the pilot to verify that the flight controls were free and correct.

What the Regulations Say …

Title 14 CFR 91.7 states, in part, that "the pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight."

Title 14 CFR 91.407 states, in part, that: "No person may operate any aircraft that has undergone maintenance … unless … it has been approved for return to service" and is logged in the aircraft records. An operational check flight is required for any maintenance that may appreciably change the aircraft's flight characteristics or substantially affect its operation in flight.

So What Can Pilots Do?

Advanced Preflight refers to conducting a preflight that goes beyond the normal preflight checklist. This is accomplished by obtaining a valuable maintenance history of the aircraft and developing an additional items checklist. While this requires some time, once you have developed the additional items checklist it can be used in conjunction with the aircraft's preflight checklist for all future preflight inspections.

Some Tips for Advanced Checks

Become familiar with flight controls or systems prior to maintenance. It is easier to determine what becomes "abnormal" if you are familiar with how it should operate.

Locate and review all of the aircraft records, to include additional documents such as receipts, work orders, FAA Form 337s (Major Repair and Alteration forms), and approval for return to service tags (8130–3 Forms). Also locate any Supplemental Type Certificate (STC) data, including data on items no longer installed on or in the aircraft.

Coordinate with your mechanic before flying aircraft that have recently been maintained to get a clear determination as to what has been accomplished. After maintenance, check all systems more thoroughly than the normal preflight checklist implies.

Pay particular attention to aircraft components that may have been affected by recent maintenance.

Avoid becoming distracted or being interrupted in the middle of the preflight to ensure you do not accidentally miss or skip a step. Immediately be prepared to abort takeoff if something goes wrong or doesn't feel right.

Country Store

BRIAN GOODE

The Country Store is back from vacation having visited family in California and attending two Grandsons' graduations.

Thanks for the Texas shirt orders. It has been placed with our supplier and they promised delivery before the end of June.

Don't forget about another NEW ITEM IN THE STORE

Folded for transportation

The Duffle Bag that does double duty. You can use it as an airline carry-on bag or carry it on your own aircraft.

Stuffed, ready to fly home

It will let you stow the bag within itself. You can take it along on a trip folded up inside another piece of luggage and then put it to use for the trip back home.

We have a few in inventory so get one before it's time to go to Oshkosh. They are priced way below other mail order bags at $30.00, which includes tax, title and delivery to 8T8.

COFFEE MUGS	**CH. 35 logo**	**$7.00**
Fishing Shirts Short sleeves	**Men's & Lady's**	**$39.00**
Long Sleeves		**$43.00**
TEXAS shirts are the same prices as above		
POLO shirts with Ch. 35 Logo	**SM – XL**	**$30.00**
DUFFLE BAGS	**Red with Logo**	**$30.00**
Log Book Bags	**To order**	**$31.00**
Baseball Caps	**Ch 35 Logo**	**$10.00**
60th Anniversary decals		**FREE**
Beverage Koozies	**With Ch 35Logo**	**$5.00**
Chapter 35 Sew-On Logo Patches		**$3.00**
Chapter 35 Bumper Stickers		**$1.00**
Wheel Chocks – Aluminum	**Two sets**	**$40.00**
"Wash Wax All" Products	**Under retail**	

All prices include State Sales Tax

For merchandise please call Brian @ 727-709-1159, or email: ladybgoode@msn.com

All of the proceeds from the sale of EAA Chapter 35 Country Store merchandise goes towards supporting the activities of the Chapter, so buy some stuff. Today.

CHAPTER CALENDAR — CONTACT EAA35VP@GMAIL.COM - *PROGRAMS ARE TENTATIVE AND SUBJECT TO CHANGE!*

 JULY	14	FLY-IN BREAKFAST EVENT Chef, Prep Cooks, Servers Needed BOD Meeting	EAA Chapter 35 Clubhouse 9:00-12:00 am 12:30 am
AUGUST	*11*	LUNCH MEETING Richard Beardsley Racing at Reno	EAA Chapter 35 Clubhouse Lunch 11:30 am Meeting/Program 12:30 pm
SEPTEMBER	*8*	LUNCH MEETING Paul Wurster Flying the U-2	EAA Chapter 35 Clubhouse Lunch 11:30 am Meeting/Program 12:30 pm
 OCTOBER	*13*	FLY-IN BREAKFAST EVENT Chef, Prep Cooks, Servers Needed BOD Meeting	EAA Chapter 35 Clubhouse 9:00 - 12:00 am 12:30 am
NOVEMBER 	*10*	ANNUAL CHILI COOKOFF EAA Chapter 35 Fly-mart Annual Membership Meeting and Election of Officers Lunch and Chili Judging	EAA Chapter 35 Clubhouse 10:00 – 11:30 am 11:30 am Immediately following the meeting
DECEMBER 	*8*	CHRISTMAS PARTY Christmas gathering 11-12 Lunch catered Gift Exchange ~$15 target for gifts but that's up to you!	EAA Chapter 35 Clubhouse Social Hour 11:00 pm Lunch Served Noon-1:00 pm Gift Exchange 1:30 to 3:00 pm

Upcoming Local/Texas Events and Airshows

Aviation Calendar of Events websites

Aero Vents	http://AeroVents.com
EAA	http://www.eaa.org/calendar
Fly-ins	http://www.flyins.com
Fun Places	http://funplacestofly.com
Social Flight	http://socialflight.com
Council of Air Shows	https://www.airshows.aero/Page/ASCalendar
Milavia	http://milavia.net

July 02 Grand Texas Airshow
Cleburne Regional Airport, Cleburne, TX

July 03 Kaboom town: Addison Airport Airshow
Addison Airport, Addison, TX

July 07 Anderson Aviation Fly-in Lunch
Bulverde Airport, Bulverde, TX

These are the last airshows in Texas until September.

If you know of any events, please send the info to:
EAA 35 news@gmail.com

September Speaker of the Month will be Paul Wurster on flying the U-2.

CLASSIFIED ADVERTISMENTS

TWO T-HANGARS FOR RENT

R. B. "Doc" Hecker has 2 T-Hangars for rent, 30A and 30B. Interested parties may contact him via phone or email.

Ph: 210-391-1072 **Email:** faaexamdoc@yahoo.com

Web: assenddragonaviation.com

Undeveloped lot for sale at San Geronimo Air Park (8T8) -- fronting the runway. The lot is Tract #51, near the south end of paved runway 35. Build your dream hangar, and/or hangar home, on this lot with frontage along the paved runway. Asking $76,000. Contact Wayne Woldt at 402-450-6170, or <wwoldt1@hotmail.com> for further information.

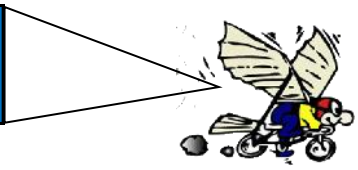
To post a classified—contact the editor at eaa35news@gmail.com

- *You must be an EAA Chapter 35 member.*
- *Ads are FREE and will run for 3 Months from the last date you re-verify that the item is still for sale.*
- *PLEASE Notify me when your item sells!!*
- *You must contact the editor by e-mail or phone to extend your ad beyond the expiration date*

Advertisement Prices for EAA 35 Newsletter

Size (percent page)	Monthly	Per YEAR	Savings
10% (business card size)		$ 35.00	
25%	$ 8	$ 86.40	10%
50%	$ 15	$ 153.00	10%
100%	$ 30	$ 324.00	15%
Classified ads	(Members Only)		Free

EAA Chapter 35 Leadership



Officers

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Secretary:	Mike Landis	**Treasurer:**	Dee Brame
210-289-7445	*mlandis7210@sbcglobal.net*	*210-493-5512*	*DeeB@satx.rr.com*

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Nelson Amen (2012-2014)		Brian Goode	
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Dave Baker (2010-2012)		Ron O'Dea	
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Safety Officer:	Ron O'Dea		June Goode
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Ron O'Dea			
210-488-5088	*r2av8r@gmail.com*		

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Nick Leonard		*Lew Mason*	
830-765-7481	*ohlson38@gmail.com*	*210-688-9072*	*lewnan@sbcglobal.net*

Chapter 35 meets

Each Second Saturday of the Month

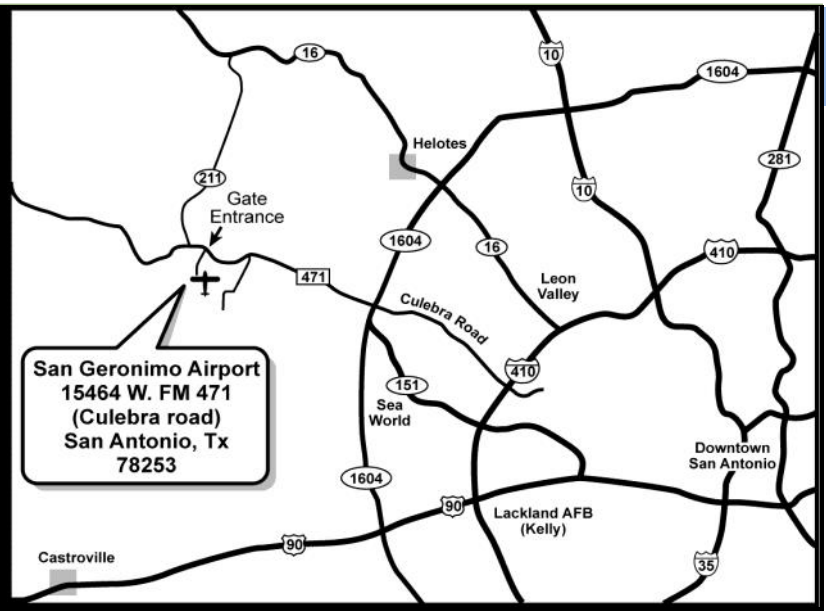
July 14th

0900-1200

July Fly-in Breakfast

Chapter 35 Clubhouse

BOD meeting to follow



EAA Chapter 35 is part of the worldwide network of EAA chapters. EAA embodies the spirit of aviation through the world's most engaged community of aviation enthusiasts. EAA's 170,000 plus members enjoy the fun and camaraderie of sharing their passion for flying, building and restoring recreational aircraft. Our clubhouse and building facilities are located at San Geronimo Airpark (8T8) located off FM 471 (Culebra Rd) West of San Antonio.

For 60 years Chapter 35 has represented aviators of creativity who share a passion for flying. Come join us!

Click Here for Link to 8T8 on AirNav.com

Ron O'Dea, Membership Chairman
15464 FM 471 W., #14
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Spray On - Wipe Dry

Wash Wax *ALL* Degreaser
All purpose Degreaser/ wax that you can safely use for those tough, greasy, oily cleaning jobs such as, aircraft engine and exhaust areas, landing gear, car wheels and tires, boat transom and water line. Removes dirt and black streaks without scratching.
Spray On - Wipe Dry

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Spray On - Wipe Dry

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leaves an anti-static protective coating on all aircraft windows, both plastic and heated glass. Plex ALL is also safe to use on cockpit instruments and displays.
Spray On - Wipe Dry

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Waterless Wash Wax Mop - Faster, Easier, Safer. NEW
The only mop with two sides. one wet and one dry. Now you can waterless wash and wax with the *reach and leverage* of an extension pole. This allows you to clean a much larger area faster and with less effort, while also eliminating the safety hazards associated with constantly climbing and moving a ladder. Our customers report time savings of up to 50% over waterless hand application.

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All purpose microfiber towel. Super soft, absorbent, long-lasting, and lint-free. The best towel for all of your cleaning needs.

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Soft, absorbent, lint-free, 100% cotton 1-ply diaper for all your cleaning and polishing needs.

NEW

Waterless Wash Wax Mop Starter Kit
All you need to get started with the new Wash Wax Mop.

Starter Kit
All you need to get started with Wash Wax ALL.

Leather/Vinyl Kit
All you need to clean, restore and protect leather and vinyl in one kit.

Cabin Cleaner
Cleans and removes beverage spills and stains from carpets, seats, tray tables, side panels, cockpit, and galleys.

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All purpose citrus solvent. Removes tar, oil, hydraulic fluid, adhesives, and gum. A safe, effective, alternative to toxic chemicals that is safe to use on paint, plastic, glass, bare metal, carpet, and seats.

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Safely and gently cleans leather and vinyl. Removes dirt, grime, body oils, and lotions.

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Easy to use water-based rubber and de-ice boot care product. Restores and protects rubber, giving that new semi-gloss look, without leaving an oily residue. Excellent on weather stripping, tires or any rubber or plastic item.

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Quick, easy, safe way to remove hard water spots from paint, plastic, vinyl, clear coat, gel-coat, bare metal, and other hard surfaces. Use Wash Wax ALL to prevent hard water spots.

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Easy-on, easy-off liquid polish. Removes oxidation and fine scratches from paint, plastic, aluminum, silver, and other metals. Can be used by hand or with power polisher.

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Safely removes surface contaminants allowing wax to bond better. Removes overspray, tree sap, acid rain, & rail dust. Safe to use on paint, plastic, glass, chrome, gelcoat, and other hard surfaces.

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