

EAA Chapter 9

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Experimental Aircraft Association Central Ohio

EAA Chapter 9 NEWSLETTER



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EAA9, INC.

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Headlines from EAA 9...

- Young Eagles Report for July
- Powered Parachutes = Fun on a Budget!
- Columbus lady flew around the world...circa 1964
- MERFI Volunteers Needed
- How to polish your stainless steel firewall

The President's Message

by Dick Wetherald

by Dick Wetherald



Wow! As of Thursday July 24th, we know of 25 Chapter 9 members going to OSH this year. It will be a great time. Clare Lutton volunteered Ted Kellogg and me (and maybe others) to assist with photographing aircraft being judged. You may see us on scooters. My photo area will be the classics, vintage and contemporary at the S end. Stop in and see us in the trailer at the Theater in the Woods.

I am attempting to maintain a list of who is where, when. I'll keep the list in the trailer. C U @ OSH!

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Young Eagles Report

by Chuck Hoisington

This time we were stopped by the rain at the Ohio State University Airport, but not before we gave 43 youth an introduction to flying and a chance to get an eagle's eye view of the area.

The program is getting more popular as shown by the number accommodated in the time available. We are meeting our goals of sharing our love of flying with more and more youth. This is made possible only by the efforts of our volunteers who enjoy seeing the joy and wonderment of the youth and receiving the very sincere expressions of thank you from them and their parents.

We do have more fun to share. Please consider coming out to our events. New people are welcomed too.

Ground duties are clerical, safety, set up and tear down, visiting with parents and youth, and the photo operation. Pilots need comply with the FAR and, for insurance reasons, be members of EAA and have \$100,000 of liability insurance per passenger seat.

At this rally the volunteer support was great! This allows more time for visiting with others who are general aviation enthusiasts and is less strenuous for all. Many of us met at the Barnstormer to eat and continue visiting after the shortened event.

Our ground support who registered were Marti Worth, Bob Delaney, Don Morgan, Andrew Hale, Alan Edmonds, and Debbie Doucette, a mix of new and experienced personnel.

Seven pilots came out, that's great support! They are with the numbers flown Kenny Harding 4, Ted Kellogg 8, Dick Wetherald 9, Wayne Williams 6, Jann Bowne 6, Tom Maish 6, and Rick Hunt 4.

Our next rally is August 9 at the Columbus State Community College Aviation Technician Education program. It is at Bolton field. They have and will make a great amount effort to help us have another big success. In addition to supporting us they will provide opportunities for the youth to drive rivets, fly a simulator, do some safety wiring, and tour their facility which includes many aircraft including a Boeing 727. The airport manager has approved the plans for the event and, subject to approval, tours of the tower.

After this the remainder of our schedule is September 13 back home at Ohio State and there on October 4, the same date as the Youth Aviation Adventure. Ohio State too gives us great support. This allows those who come to the airport to participate in both events. Again, volunteer help will be needed as that is what makes the program possible, and thanks to all of those who do that.

How to Join EAA Chapter 9

EAA Chapter 9 (EAA9 Inc) welcomes EAA National members and volunteer-only participants. We are an active chapter with a multitude of activities, events and opportunities to meet others in the aviation community. And we love to fly, too!

With the 2007 overhaul of the Bylaws, participation was clarified.

Regular membership: Current membership in EAA National is required. Dues are \$9.00 for the calendar year. You can join by mail, at a meeting or **on our website via paypal**. (www.eaa9.org)

Volunteer participation: Those without EAA National membership are welcome and are encouraged to participate. Sign up is requested. Dues are not required.

Come join the fun!

Hangar Talk

- Young Eagles Rally—Aug 9th Bolton Field 10am to 2pm.
- Our EAA 9 Website is all new—check it out!
- The Homebuilder Subgroup has taken the summer off, more to come in the fall!
- EAA9 Barbecue and Pot Luck-Saturday August 23 is the EAA Chapter 9 bbq and pot luck. EAA Chapter 9 will roast the meat and you can bring a side dish. watch your email for an update.

DOOR PRIZES WANTED!

We have offered aviation related door prizes at several of your recent meetings. Many of them were quite valuable. Some, less so. All were the result of presidential house cleaning. Join in the fun of sprucing up your house. Bring your unneeded aviation related treasures and we can make them door prizes too. See Dick Wetherald, President EAA 9 for details.

CONTACT US @
www.eaa9.org
 or email a Chapter
 Officer

VOLUNTEERS NEEDED

EAA 9 is a Chapter of people that come together for a common goal, their love for aviation. As a volunteer only organization, there is no better way to get involved than to lend a hand. Most of our positions require a very small time commitment, but the gratification and spirit of camaraderie more than make up for the modest amount of work involved. No matter how young, how old, or how experienced, you can make a difference. The following positions are needed:

- Newsletter Assistant Editor—reports to and assists the Newsletter Editor in producing this fine publication.
- Program Coordinator—helps to setup and coordinate programs for Chapter meetings as necessary.

For more information about any of these or other areas of interest, please contact our President

—Dick Wetherald at president@eaa9.org



We have a whole line of apparel available through our new EAA 9 website (www.eaa9.org).

Just go to the MEMBERS tab (you don't need to be a member to purchase merchandise) and select 'Buy Chapter Apparel' you will be redirected to our EAA 9 Store where you can purchase any number of items.

Please provide any feedback you have to Director Greg Schroeder at 'Schroeder@eaa9.org' or call 614-898-3892.

Powered Parachutes = Fun on a Budget!

by Mike Cencula

During the July chapter meeting, Sky Stargel entertained and educated a room full of aviation enthusiasts with his presentation about powered parachutes.

Even though powered parachutes are pretty new to the aviation scene, their history hails back to 1963 when an advertiser attached a kite to his vehicle. To his surprise, gusts of wind were lifting the front of the car off the ground. After some discussions with Notre Dame University and subsequently the US military, his idea evolved into the development of a new type of ejection system which could be used to enable pilots to steer their parachute out of hostile territory after an ejection from their aircraft.

Lowell Farrand became the first powered parachute test pilot in 1964.

However, after some early success development languished until 1981 when some of the original members of the development team (Steve Snyder, Adrian Vandenburg, and Daniel Thompson) worked on the development of the

P-1 prototype in 1981 and the P-2 and P-3 prototypes in 1983. The P-3 was shown at Sun-n-Fun with a very positive response that prompted the formation of the ParaPlane Corporation.

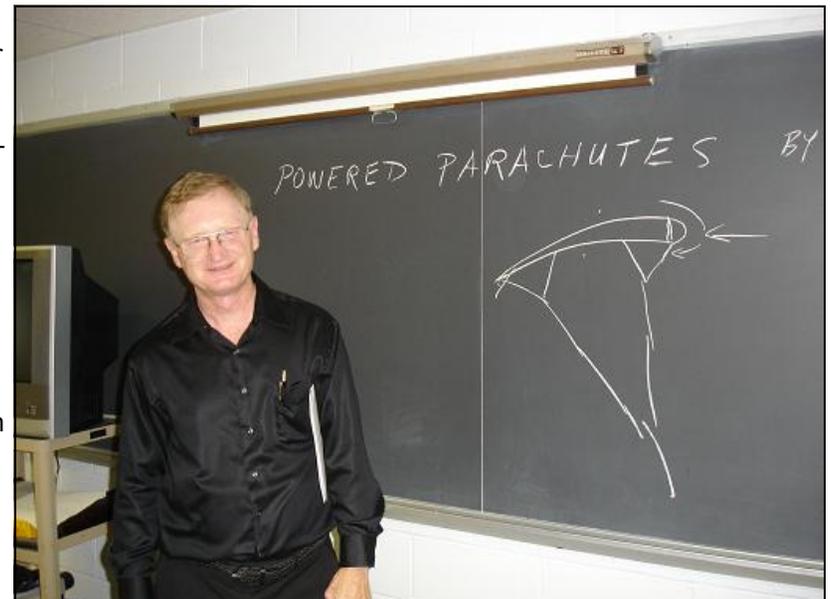
Sky enthusiastically described some of the advantages of this novel form of flight. Powered parachutes are pretty much the low-cost alternative for entry into aviation ranging anywhere from \$6,000 up to \$36,000. Try finding even a used Cessna for \$6,000! All airframes are built to order and generally take six to eight weeks till delivery. The view from a powered parachute is fantastic, rivaled only by that of a helicopter or gyroplane. But, one of the best advantages is that you can tow your powered parachute on or in a trailer behind your vehicle and thus have an air touring platform with you at all times. Even with folding wings, ultralights can't match this ease and convenience of transport.

It turns out there are three types of chutes in use on powered parachutes. Rectangular chutes go by the name of "square" and are most popular among beginners due to the fact they are easier to "kite up" in preparation for takeoff. Elliptical chutes give twice the performance of square chutes, but are much more unruly with respect to kiting up.

The last type, hybrid chutes, try to combine the best features of both designs.

Among several other interesting facts shared by Sky is that (other than landing), any given rig will fly at the same speed, regardless of the power setting. The power setting just determines whether you are going up, staying level, or descending.

If you're interested in becoming a powered parachute pilot, training is going to be required...and Sky can provide it. He teaches out of Columbus Southwest. His technique eases you into landing through progressively lower level flight practice. With about 10 hours of instruction and two hours of solo, you could be on your way to enjoying the countryside with a view even the birds will envy!



Sky Stargel talking PPC

Thanks, Sky, for taking your time to share some of the joys of the sport of powered parachute flying!

First Lady to fly 'round-the-world'

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Born in 1925, Jerrie Mock lived through the Great Depression, World War II, the Cold War, and many other things. After having had several jobs, Geraldine (Jerrie) Mock, nee Fredritz became manager of the Columbus Airport (Ohio). She had married Russell Mock in 1945 and they had 3 children. In 1962 Jerrie complained to her husband of having nothing interesting to occupy her, she wanted to go somewhere; she had already learnt to fly. Almost as a joke Russell replied "Why don't you fly around the world?" Jerrie took him at his word, and after studying an atlas, she commenced to organize her flight in earnest. She discovered that only men had flown around the world and that there were no such records made by females. With only 500 flying hours at this time, she proceeded to obtain an instrument rating to enable her to fly in all weather conditions (IFR). By the time she was ready, she had clocked 750 hours.

Jerrie used a 1953 Cessna 180, registered N1538C, and christened "The Spirit of Columbus." The aircraft was jointly owned by Jerrie and her husband, along with a friend. It was a high wing machine with conventional landing gear (tail wheel). Two ferry tanks were fitted in the cabin, bringing the total fuel on board to 178 gallons, giving her an endurance of 25 hours and a range of 2400 nautical miles. An HF radio set was fitted for longer range radio communications. The engine, donated by the firm Continental, had been custom built, tested, dismantled, reassembled and tested again four times.

As Jerrie prepared for her flight, she heard of another women pilot, Joan Merriam Smith, who was also planning to fly solo around the world. Joan planned to retrace Amelia Earhart's ill fated flight. Jerrie Mock was the first of two women to register her intentions to fly solo around the world with the NAA (representing the FAI in the US). Rules of the

FAI stipulate that only one pilot at a time can apply to make an attempt to set the same record. Although the two women pilots insisted they were not racing against one another, Russell Mock pushed his wife to fly faster, not wanting her to be caught by Smith who had dreamt of being the first women to fly solo around the world, and to finish, where Amelia Earhart had failed.

She left Columbus on March 19, 1964. Her flight was not without incident, as her HF radio failed to work, and a strong cross wind at Kindley Air Base in Bermuda proved very difficult. At night, on March 26th, Jerrie took off for Santa Maria in the Azores. She had to make an instrument landing. On the 28th, she was on her way to Casablanca in Morocco, and had to fight a lot of icing. Jerrie's aircraft developed problems with the brakes and the tail wheel.

Jerrie landed in Bone in Algeria on March 30th. On the 31st, when Jerrie had hoped to have made it to Cairo, she reached Tripoli in Libya. She was on her way again on April 1st, but unfortunately Jerrie landed at a 'secret' military airport at Inshaas by mistake, instead of Cairo. After two hours of interrogation, she was finally permitted to continue on to Cairo.

The following day, Jerrie visited the pyramids, and had a camel ride. She left Cairo for Dhahran on April 3rd and for Karachi in Pakistan on the 4th. On the 5th, Mock reached India, and although her husband wanted her to fly on to Calcutta, Jerrie preferred to stop in Delhi. She was in Calcutta on the 6th, Bangkok, Thailand on the 7th, and on April 8th, Mock crossed the Sea on her way to Manila in the Philippines.

At last Jerrie was able to have the brakes repaired. Her husband was still trying to get her to go faster, but she was tired and badly in need of a rest. Jerry



landed in Guam Island on the 11th of April and on Wake Island on the 12th. These islands are American territories. On the 13th of April, Jerrie took off for Hawaii, crossing the International Date Line on the way, and thus arriving in Hawaii on the same date. Then came the long leg from Hawaii to California, where she landed at Oakland after a leg of more than 2,400 miles and a flight of more than 18 hours. Her husband, who had lost 18 pounds since the beginning of the flight, was there to greet her, along with journalists, television cameras and a

First Lady to fly 'round-the-world' continued...

huge crowd.

Jerrie finally arrived home in Columbus on April 17th, after stops in Tucson, Arizona; El Paso, Texas; and Bowling Green in Kentucky. President L.B. Johnson awarded her the Gold Medal of the FAA, and many other countries awarded her medals and decorations. The FAI presented her with the prestigious Louis Bleriot Silver Medal.

Jerrie was interviewed by radio and television stations from all over the world and in one such interview, when asked "Why did you do it?" she answered "I did it to give confidence to the little pilot, who is being left in the jet stream of the space age."

Jerrie Mock had covered 22,858 miles in 30 days, had flown 158 flying hours. She set two official records with the FAI; Feminine record, speed around the world. She also set 5 unofficial records; First woman to fly solo entirely around the world; First women to fly from the US to Africa via the North Atlantic; First women to fly across the Pacific in a single engine aircraft; First women to fly to fly the Pacific from west to east; First women to fly both the Atlantic and Pacific.

Geraldine Mock did not fly N1538C again, as the Cessna Company gave her another Cessna in exchange for the Spirit of Columbus which was then put on display in their factory in Wichita, before being given to the Smithsonian Museum in Washington. Jerrie continued to fly her new Cessna P206, N155JM, in which she set many speed record and endurance records, all the way to Puerto Rico, and Rabaul in New Britain.



MERFI Volunteers Needed

Being in the midst of summer air show season I hope you are getting your share of flight time and pancakes. Recently Chapter 9 was contacted to help in the search for volunteers to help support the regional air show MidEast regional fly-in AKA MERFI. So we are putting out the call for individuals to join in as they can. The event will be at Urbana this year and additional show info is at their web site at www.merfi.info. At Urbana there is the B-17 restoration and a B-25 at the airport as well as a full air show schedule. If you are interested in lending a hand please contact Rick Rademacher at 937-653-7257. Volunteers are the backbone of EAA and any help will be appreciated. Looking forward to seeing you there!

Greg Schroeder

How to polish a stainless steel firewall

by Mike

RV-7A (fuselage)

<http://www.our7a.com>

When I saw a post on Vansairforce.net about how another RV builder polished the firewall on his RV-7, I thought "Wow! That looks really great! I think I'll polish my firewall, too."

Little did I know what a learning process this would be. Here are some pointers in case you choose to polish your firewall. Note that this article assumes you're in the building stage and have full access to the firewall. I imagine it would be significantly more difficult (maybe impossible) if the engine and all accessories were already mounted.

The first rule of polishing a firewall is: Don't polish the firewall.

The second rule of polishing a firewall is: Refer to the first rule.

Seriously, this is a tremendous amount of work. You're probably talking about 40 to 60 hours worth of back aching work to get a reasonable finish. And 99% of the time it's not even going to be visible.

That being said, a polished firewall really does look really nice and could make the difference between first and second place in a judging contest. Do you really want a dull, dingy firewall standing between you and that Lindy? I think not! J

Required materials:

The materials required for polishing are:

Various grits of polishing compound (in order of use)

Black - coarse cutting action

Green - medium cutting action

White - fine cutting action

Blue - buffing action only (no cutting)

Several wheels

Five inch spiral sewn cotton wheels (one for each of green, white, and blue)

A sisal wheel (made of rope or burlap-like material) for the black compound

Loose cotton wheels (optional for getting into corners)

A mandrel for the wheels

A die grinder or drill

A high output air compressor (if using a pneumatic die grinder or drill)

A wheel rake to clean encrusted polishing compound out of the wheels

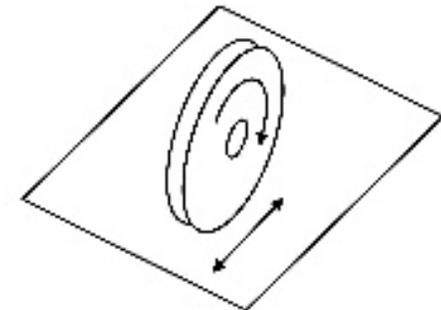
Windex and paper towels

I purchased all of my polishing compounds and accessories from Caswell Plating. They were also very helpful in troubleshooting some of the difficulties I experienced along the way. If you choose to buy from them, you can either get their stainless polishing kit or just get the materials listed above. Just make sure that you include a bar of blue compound and a wheel rake in your order.

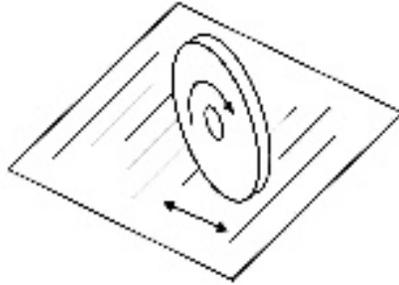
The technique:

The basic way metal polishing works is to start with a coarse grit of polishing compound to grind all the large irregularities off the surface. Then use the next finer grit to get the scratches out that were left behind by the previous grit. Each time you change to a finer grit, you should hold your tool at 45 or 90 degrees to the direction used for the previous grit. That way you can see when you've got all the scratches out from the previous grit. Don't move on to the next finer grit until all of the scratches from the previous grit are gone.

First pass:

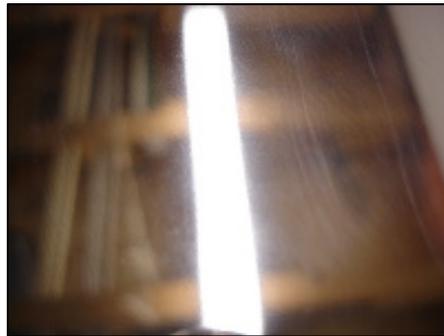


Second pass:



When starting, you may think that the raw stainless has a nice smooth finish already. While that's somewhat true, it's nowhere near smooth enough to give a mirror reflection. The surface of the metal has a slight texture to it which will result in a mottled or hazy appearance rather than the mirror polish you're looking for. I found that I needed to go over the firewall with the black compound to grind off that surface texture before moving on to the finer grits.

Here are two photos. The surface in the left image had the surface ground down by starting with a coarse grit and moving to finer grits. The surface in the right image was polished starting with a relatively fine grit (green).



Notice how the right image looks out of focus? That's because the surface isn't mirror-smooth. Between each grit, the surface needs to be cleaned of all

polishing residue. Use Windex and some good quality paper towels to clean all of the residue off. Otherwise, the grit from the previous compound will get into the wheel for the next (finer) compound. This is also why it's important to have a wheel dedicated for each grit...to avoid cross-contamination of your wheels.

This is a slow process. Have patience. I found that I could traverse the wheel across the surface at about ½ inch per minute.

Things to watch out for:

Use only very light pressure on the wheel. Using a lot of pressure will generate a lot of heat which can warp the firewall material or work harden the surface making it brittle.

If you're using a compressor with an air powered die grinder, be sure you've got a good one. It takes a lot of air to run a die grinder continuously. Mine is an 11 scfm compressor with a 60 gallon tank...it could barely keep up.

Be careful when polishing around edges. The wheels have fibers hanging out from the surface that will grab any nearby edges of the sheet metal and can bend or kink the metal. When near an edge of your firewall, you need to hold the die grinder such that the rotation of the wheel will push the exposed edge away from the wheel rather than pull the edge into the wheel.

When applying the compound to the wheel, don't expect to see it really adhere to the wheel. When I first started, I was expecting to see globs of compound stick to the wheel. It doesn't work that way...instead, the wheel just gets a light dusting of compound. It only takes a second or two of contact between the wheel and the compound bar. You almost can't even see it on the wheel. Replenish the wheel with compound roughly every 30 to 60 seconds.

Work in a very well lit area. The scratches you're trying to see are miniscule and without good lighting you may think the finish is excellent, but if all the scratches aren't buffed out, the light will catch them and cause the surface to look hazy. Refer to the photo below. See the hazy bluish streak running from upper left to lower right? That's the scratches from the green compound catching the light. Those disappeared by the time I finished with the blue compound.



It was recommended to me (after the fact) to keep a 2' x 2' box fan with a furnace filter taped to the front next to where I was polishing. This is a technique used in the woodworking trade to keep sanding dust down. It should work well for polishing dust as well.

Summing up:

While polishing a firewall certainly isn't going to be for everybody, those in pursuit of a unique and brilliant feature for your plane will be sure to garner plenty of "ooh-s" and "aah-s" when you turn your firewall

from this:



...to this:



Controlling the mess:

Polishing a firewall creates a tremendous mess. Fine polishing dust gets everywhere. It'll end up all over your workbench, the floor, on the walls and on your tools. Here's a photo after finishing my firewall where I'd vacuumed half of the shop wall:



You definitely need to wear a respirator so you don't end up breathing that stuff.

In retrospect I should have hung plastic tarps all around the polishing area. That would have contained the dust to a much smaller area of the shop. Oh well...live and learn.



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