

## Prairie Capital Corvair Association

P.O. Box 454  
Pawnee, Illinois 62558

# The Flat Six

September 2023

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## From the Prez

It's summertime and it's HOT HOT HOT. Too hot to put the top down on your Corvair for a cruise. But, maybe just right for an evening/night outing to your local scenic parking location overlooking a lake? Preferably with your sweetheart sitting next to you. Stars, sweetheart, top down, scenic view - life is grand.

It's September which means the annual Secretary of State Auto Show in downtown Springfield around the state capital. That's the good news. The not so good news is all the construction being done at the capitol complex. The state capital is being worked on, the Armory building is being renovated and they have dug a big hole next to the Stratten building. It's a mess. But if you pre-registered, a parking spot will be there for you to show off your nice Corvair (or other classic automobile). The weather is bound to be better than what it is this week. Food vendor will be available plus the downtown eateries. The Capital building will also be open for tours. If it's hot, take a tour - the building has AC.

I'll be there, even though my 66 coupe is not as show ready as most. It gets me a good parking spot next to all the other nice cars.



Not a convertible, but the picnic idea matches. Envious. Fly-fishing equipment. Posted to FB by Peter Fredsall

Tim

# Calendar of Events - 2023

PCCA Home Page may be found at <http://www.corvair.org/chapters/chapter627>



**Directions to the CPF Corvair Museum near Glenarm Illinois.** Take exit 88 from I-55, from either direction, head west – turn right if you are traveling south on I-55, left if traveling north. Follow the road as it curves to the left, south. Go straight at the stop light (turning right takes you to Chatham). The Museum is 1.3 miles from the stop light on the right hand side – just past the Double J campgrounds.

September 9, 2023      **SOS Auto Show, downtown Springfield 8:00am to 3:30pm**  
**PCCA Meeting 1:00pm. At the show, near the Corvairs.**  
**MUST PRE-REGISTER.** Construction around capital complex has limited exhibit space for the car show. Capital is still open for tours.  
To Park together, Meet up is at the Walmart on South 6<sup>th</sup> street (I-55 exit 92, 6<sup>th</sup> street )  
Entry form at [https://www.cyberdriveillinois.com/publications/pdf\\_publications/iga13.pdf](https://www.cyberdriveillinois.com/publications/pdf_publications/iga13.pdf)

September 23, 2023      36<sup>th</sup> Annual Fall Swap Meet - Auto, truck and Motorcycle Show  
7:00 am - 2:00 pm Effingham County Fairgrounds, Altamont Illinois  
7am to noon registration, awards 1:30pm. \$15 entry includes 2 swap meet passes  
Vendor Spaces Pre-registered \$20 (10x12 inside or under roof spaces) \$25 day of meet

Sept 29,30, Oct 1      Great Plains Corvair Roundup. Guthrie Oklahoma (just North of Oklahoma City)  
Car display, Corvair Concours, swap meet, other activities

October 14, 2023      **PCCA Meeting 2:00-4:00 pm. LOCATION: the CPF Museum in Glenarm**

November 11, 2023      **PCCA Meeting 2:00-4:00 pm. LOCATION: the CPF Museum in Glenarm**

December 9, 2023  
**PCCA Christmas get together, luncheon 1-4PM.**

**Witt's End** 1800 Lincoln Trail Road, Taylorville, Illinois. 217-713-2310. The reservation is for a private room. Let Bill and Shelby Berta know by December 1 if you are attending as the restaurant will have to know if additional staff will be needed. More info on how to find the restaurant will be added closer to the date.

For more Corvair Events Check the calendar on the CORSA Web site: [www.corvair.org](http://www.corvair.org)

Glen Rittenhouse follows “bringatrailer.com” results and has reported these over the last month.

July 30, 2023  
1965 Corsa Convertible, Turbo, yellow,  
51,000 shown on odometer      \$27,500





# PCCA skipped its August meeting

But Bill Pierson did take his 1961 Monza to the Kalamazoo VCCA meet. And to his surprise - and credit - it won best in class AND best in show. "The class was all Chevrolets from 55 to 25 years old. A lot of disappointed 55-57, Corvette and Chevelle owners to get beat by a Corvair." (Quote from Bill). Bill's brother Mike went along. They had a great time. The Monza also was elevated to VCCA Seniors - a VCCA car must be shown twice (at a very high level) to make Seniors in VCCA.

As Larry Jahn noted, Bill did an excellent job in restoring a nice early Vair. The 1961 was previously owned by Garry and Sue Biggs. It was always a very nice Corvair - but was seldom entered in a judged show such as the SOS Show because Garry was the chief judge (before Mike) at the SOS Show. The beige color tended to belie the great condition of the Corvair. Bill took it to the next level scoring 97.00 points in the CORSA Concours at the 2023 convention in Wisconsin Dells.



Speaking of the 2023 convention. I got a note from Don Waggoner who is usually vending model Corvairs inside. Don modified a Corvair model to match Larry Jahn's red 1962 Monza Station Wagon. Larry's wagon is another excellent restoration - the wagon scored 97.53 at Concours. He is a picture of both Larry's actual wagon and Don's model wagon which Larry now has. How cool is that?



The next PCCA meeting will be at the SOS Auto Show September 9, 2023. Entry fee for the show (per car) is only \$10. Quite inexpensive for a Judged Car show. Is an option for display only which gets you a nice parking spot amongst all the other show cars. PCCA will meet at the South 6<sup>th</sup> street Walmart to drive to the show together - so we can park together.

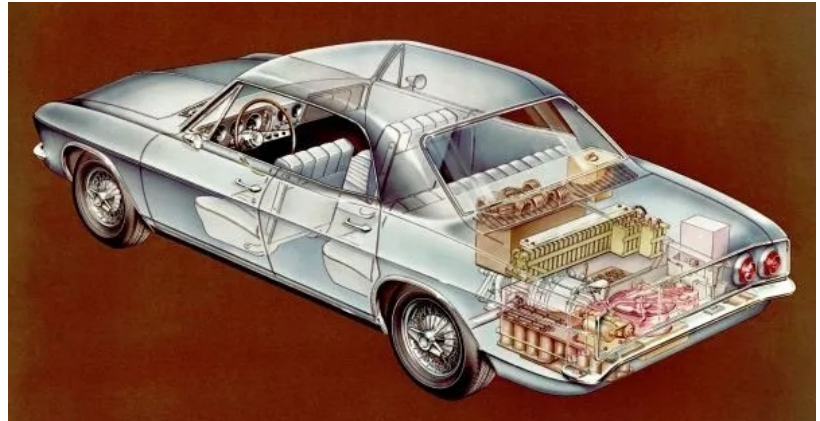
The following is from Mac's Motor City Garage web site. The link was posted to the CPF facebook page August 15, 2023. <https://www.macsmotorcitygarage.com/secrets-of-the-1966-gm-electrovair-an-ev-pioneer/> Corvair Historian Eva McGuire stated the Electrovair 2 is owned by and on display at the GM Heritage Center.

## Secrets of the 1966 GM Electrovair, an EV Pioneer



General Motors has a long and varied history with alternative-fuel vehicles. Here's an interesting example from 1966, the battery-electric Electrovair II.

GM's Electrovair II sprang from an earlier experiment known as Electrovair I, which was limited in success, but it apparently demonstrated enough potential to trigger a second attempt. While Electrovair I was based on a first-generation Chevrolet Corvair sedan, Electrovair II was built around a second-generation Corvair—a mildly customized '66 four-door hardtop in Marina Blue.



Easily the most distinctive feature of the Electrovairs was their batteries. Both used silver-zinc cells, a type more often found in aerospace and military applications. Electrovair II used 286 silver-zinc cells wired in series and arranged in 13 trays with 22 cells per tray. Seven battery trays were mounted in the front luggage compartment, while the other six trays were installed in the engine compartment out back in order to more evenly distribute their considerable weight: some 680 lbs. The total capacity of the 530-volt pack was 26.4 kWh (kilowatt-hours). For comparison's sake, the 2022 Chevy Bolt EV features a 65-kWh battery in a more space-efficient package.

With five of the six battery trays in the rear engine compartment removed, we get a decent view of the motor, a 115-hp four-pole, three-phase induction unit built by GM's Delco Products Division and coupled to a specially engineered transaxle. The power inverter, motor controller,





and oil cooling system were tucked away in the rear compartment as well, leaving the cabin free to accommodate the usual five passengers.

Road performance, which included a 0-to-60 mph time of 16.7 seconds, was described as similar to a production Corvair with automatic transmission, although Electrovaair II's top speed was restricted to 80 mph by the motor's 13,000 rpm limit. With 680 lbs of batteries, 315 lbs of electronics and cooling gear, and a 130 lbs of motor, the Electrovaair II's greatest handicap on the highway was its weight: around 3400 lbs, some 800 lbs heftier than a production Corvair.

There were other problems, too. Range was limited to 40 to 80 miles, due in part to a lack of regenerative braking, which the project engineers declined to pursue. (They saw regen braking as mainly a means to replace conventional engine braking, not as an energy source.) GM's windup report from the project (SAE no. 670175) also cited long charging times of six to eight hours, limited charging cycles and resultant short battery life, and high materials cost as obstacles to further EV development at that time. But then, that was the state of the art in 1966. By the way, Electrovaair II is still around in fine shape and can be seen in the automaker's private vehicle collection at the GM Heritage Center in Sterling Heights, Michigan.



# Happy 73<sup>rd</sup> SOS Vehicle Show

In 2023, we will commemorate Pontiac vehicles, and honor Pontiac GTO as the show's special Illinois State Champion Award. The Pontiac GTO is featured on this year's special event license plates, which you can display on your vehicle from mid-July through the date of the show and keep as a memento for years to come.

Plus: Antique Tractor Class: An antique tractor class will again be showcased. All tractor enthusiasts are encouraged to participate at no cost. First-, second- and third-place trophies will be awarded.

Free Swap Meet: Swap meet offers free 20' x 20' space on Capitol Avenue. For more information, contact [intergovernmentalaffairs@ilsos.gov](mailto:intergovernmentalaffairs@ilsos.gov) or call 312-793-8876

## Corvair Classes – SIX.

- CR-1 Class: Corvairs (open) (tops up for judging) .....1960–1964
- CR-2 Class: Corvairs (closed, includes station wagons) .....1960–1964
- CR-3 Class: Corvairs (open) (tops up for judging) .....1965–1969
- CR-4 Class: Corvairs (closed) .....1965–1969
- CR-5 Class: Corvairs (racing and/or modified) .....1960–1969
- CR-6 Class: Corvairs Rampside and Greenbriar .....all years

Another great Article by Mike Dawson. It is Preventive maintenance series number 115 (an oldie but goodie). It may be a bit technical for most of us, transmissions are just a big puzzle. But these articles and a little phone advice from the experts have helped me conquer lots of repairs. Thanks Mike (And Craig and others)

## The Preventive Maintenance Series

Mike Dawson

### '61-'65 4-Speed Transmission Tips

**Errors in the Books:** The better guide to service these transmissions is the 4" by 8 1/2" booklet by GM: Overhauling the 1961 4-Speed Transmission (available from CCP). It has lots of pictures, however page 3 shows an un-necessary puller, page 4 does not warn you about holding slight pressure against the counter shaft as it emerges, and page 14 shows using stub shafts on both sides of the counter gear during installation (only the left side is used). Although the '64-'65 units had many change from '63 which you need to be aware of, this booklet is a good guide to the general layout and process.

The shop manuals also show the un-necessary puller, tell you that you can remove the 3-4 shifter fork in the wrong order, include the incorrect diameter of the dummy shaft, give little help installing the counter gear, provide confusing directions on installing the shifter shafts and do not mention removing the snap ring on the 3-4 synchro. Remove the reverse idler shaft and gear after the main shaft.

If you are working with a '61-'63 unit be aware that there was a shim added to some of the main shaft assemblies that does not show up in the manual or parts books. It was installed between third gear and the synchro hub. There were several upgrades done after the '61 model and this shim was probably added to help cut down on excess clearance (movement) when shifting into third and forth.

**Driving Out Pins From Shift Forks:** Do the removal in the correct order of disassembly or you could lock up the fork with the pin pushed halfway out and no access to it. You must have the shifter forks **fully** engaged in the gears as specified in the books. If you do not, the pins will not clear as you drive them out. Look at where the pins have to exit and be sure they can drop into the case.

**Check Spur Gear Teeth:** The four forward gears each have spur gear teeth that interact with the synchro hubs. Check them for major chips or flattened edges. If these are really bad they could cause shifting problems even with good blocker rings. Over the years I have had good luck with putting points back on flattened teeth with a very thin cut-off wheel. Practice on a junk gear and with patience and a steady hand you should be able to make the gears serviceable. Also check the corresponding teeth on the synchro clutch sleeves; these are usually good but can also be dressed up if necessary. The two sets of teeth for reverse are usually damaged but unless large pieces are missing (causing clicking in reverse) they do not need dressing up.

**Checking blocker ring-to-cone clearance:** The tapered area of the brass ring can wear causing it to ride too close to the spur gear. They also loose their ability to engage the cone firmly due to partial loss of the internal splines. You can check by inserting a feeler gauge between the ring and the spur gear ledge while pushing the ring tight against the cone. Clearance should be a minimum of 0.030; new blocker rings from Clarks measured 0.050 on gears I recently checked.

**Counter Gear Shaft and Bearings:** This is the most common wear problem on the '61 -'65 transmissions. If you are driving a vehicle with a bad shaft, you will hear whining in first gear that gets less noisy in second, again less noisy in third and finally quiet in forth. There are four sets of needle bearings surrounding the shaft and with the loading greatest in first gear the first set of bearings and the corresponding area on the shaft wear out. Continuing to drive the vehicle will increase the wear down the shaft with increasing noise in each gear except forth gear which does not load the counter gear as there is no reduction; fourth gear is 1:1. The shafts wear badly but I have never seen the bearing surface of the counter gear worn. The replacement shaft and its bearings are available from CCP.

Changing this shaft and the necessary bearings can be the hardest part of the transmission maintenance so I will share some things that help me out. You can remove the shaft for inspection and leave all 92 bearings in place by use of a dummy shaft as described in the shop manual. I used a junk clutch shaft from a '64-'65 4-speed which is the correct diameter (or visit Metal By The Foot for an 11/16" dowel) and cut one piece exactly 7" and a second piece about 2", keeping perfectly square cuts. Chamfer the ends of the dummy shaft slightly but leave the ends of the 2" piece sharp; it is the re-installation helper. The counter gear shaft is a press fit at the clutch gear end of the case. Start the shaft carefully with a punch and heavy hammer (or shop press) until you feel it start to give up the press fit, then use the dummy shaft to push the counter shaft out while using your other hand to keep pressure on the shaft as it emerges. This keeps the bearings in place. Since the first gear end where wear occurs comes out first you could inspect it for wear and if perfect (not likely), simply push it back in.

If you install a new shaft and bearings, use lots of cold Vaseline when placing dummy shaft, bearings and spacers into the counter gear. When you are ready to install the counter gear in the case, the book is of little help, so the following is what I use. With the case opening facing you, first, check the inside area on the case where the thrust washer fits on the right side. Half of the cases have residual casting that rubs against the small raised tab on the washer so do a check by sliding the washer into position and note if the tab hangs up. Remove any of the casting that is necessary to be able to slide the washer into place smoothly when the counter gear is in place. Next, use Vaseline to place the thrust washer in place on the left side and use the 2" dowel mentioned above inserted through the washer from the outside. Lower the counter gear into place without disturbing the left thrust washer. Keeping the counter gear level, insert the right thrust washer (coated with Vaseline) into place with its tab in the slot. Look through the hole from the outside and when the washer and dummy shaft are centered, you are ready to insert the new shaft from the right side. You may have to look back and forth at the ends to make sure of the centering and you may need to use a tiny screwdriver to center the bearing retaining washer. As you slide the (new) shaft through, hold pressure on the emerging dummy shaft to keep the bearings in place. Remember the shaft is a press fit into the case on the clutch gear end but will slide easily pushing the dummy shaft out.

### **Additional Stuff**

Remove the reverse idler shaft after removing the mainshaft and remember to install it before replacing the mainshaft.

**1-2 Synchro Hub:** Oil slots and zits to 1st Gear

**3-4 Synchro Hub:** Oil slots to 3rd Gear

Cover the shifter pin hole with one layer of scotch tape when inserting shaft through seal or inserting seal over shaft. Using fine sandpaper may not get a sharp edge that the seal lip drops down into when moving across the hole.

**Changes Over the Years:** There were many changes in parts made from '61-'65; eight different versions with many parts upgrades according to our CORSA Transmission Historians. A lot of changes were made in the middle of model years so if you are sorting through used gears that you do not know the history of, it is vital that you read up on changes and **measure parts and count teeth carefully.**

**Craig Nicol** has written a great guide to yearly upgrades and parts changes, and combined that with interesting historical information. His article can be found in the October 2004 issue of CORSA Communique or in the CORSA Tech Guide, page Transmission 24. Having a copy on hand can be useful since others may have been into your transmission before you.

# "PINKY" Corvair

Eva McGuire

Pink Corvair inspired by the Barbie doll? Maybe/maybe not..but who knows? With the new Barbie Movie being released this week, I thought it would be fun to get in on the latest craze for all things “pink” but with a historical twist. The Barbie doll originally came out in March of 1959 and might have inspired the creation of this custom made pink 1960 Corvair convertible. Meet "Pinky" – created for Harley Earl’s wife, Sue, who wanted a Vairy special car. Harley Earl was the founder of GM Styling and was involved in the Corvair project before he retired from General Motors in late 1958. As GM’s Vice President for Styling, Bill Mitchell would take over for the Corvair project after Earl’s retirement. Pinky was created in the Chevrolet Interior Studio by a very talented designer by the name of Blaine Jenkins. I’m sure this one of a kind pink convertible made a big splash when folks first saw it on the road, and it sure looks good parked at Barbie’s Dreamhouse today (virtually, speaking).



Outside of the uniqueness of being Corvair's first hand made convertible (as Corvair didn't introduce its production convertible until the 1962 model year); Pinky was equipped with power seats and windows, air conditioning, and a pink carpeted trunk. Mrs. Earl approved the drawings, paint, and fabric that went into making her special Corvair. The color is a pale pink, but a pearlescent pink with matching leather interior and top boot. It also had a customized hand made top assembly equipped with a rain sensor! The windshield frame was cast bronze. Pinky was fitted with a three speed Hydramatic experimental transmission and turbocharged engine (a one off turbo 350 automatic prototype that was being considered for the production Corvairs at the time).

During the time Sue Earl owned Pinky, it went back to GM Styling several times for some cosmetic updates to make the car look like the newer Corvair models. Some of the changes included receiving a 1962 nose panel and Corvair wire wheels. I can about imagine how that car must have stood out going down the streets in the early 1960's and the fact that Corvair didn't introduce its production convertibles until the 1962 model year. Then again, cars of that era were quite flashy and colorful.



After the Earl family had their fun with Pinky, it is reported that a GM employee bought the car for his daughter and drove it for the next ten years (including the wintertime). This ultimately destroyed the car with rust. Apparently this car changed owner's hands a few times, and; by the time the last owner had it, they didn't even know that Pinky was a special Corvair as it just looked like a rusted out car that





was only good for parts. It's too bad as this special Corvair should have been saved and restored.

Fun facts: Blaine Jenkins worked for GM for over 40 years in different studios including Chevrolet, Oldsmobile, and Pontiac. He ran the color studio at GM Styling for four years and was the chief interior designer for Oldsmobile, Pontiac, and Chevrolet. He was assigned to the Chevrolet Interior Studio in 1959 where his first project was the new 1959 Chevrolet. His specialty was interiors including instrument clusters, steering wheels, seats, and trim panels of cars. He frequently worked on interiors of one off cars

made for the GM top executive wives and daughters. How nice!

Mr. Jenkins made many contributions to Chevrolet including the interior for the 1961 Corvette Mako Shark, and he created designs for all the Corvairs from 1960 to 1969. His specialty Corvairs included "Pinky", the special two 1960 Monzas (Feminine/Masculine) show cars (one had cloth interior; one had leather); and the 1960 "Super Monza" Corvair for sixteen year old Lynn Mitchell (Bill Mitchell's daughter) which helped to bolster the successful Corvair Monza production. The "Super Monza" still exists and is owned by the Corvair Preservation Foundation and sits proudly on display at the National Corvair Museum located at 10041 Palm Rd., Glenarm, Illinois. Cool, huh?!

**Prairie Capital Corvair Association (PCCA) Membership Form**

**January 1, 2023 thru December 31, 2023**

Type of Membership      Individual      \_\_\_ \$17  
    Family            \_\_\_ \$20 (2 adults at one address plus children under 18)

\_\_\_ Apply a \$5 discount for receiving the electronic version of the newsletter and other correspondence.  
 If joining after July 31, dues are: Individual \$8.50, Family \$10.00. If applicable, the discount is \$2.50.

Name \_\_\_\_\_ Spouse/ 2nd Adult \_\_\_\_\_

Street Address \_\_\_\_\_  
 City, ST ZIP \_\_\_\_\_

Home Phone \_\_\_\_\_ CORSA Membership ID \_\_\_\_\_  
 Cell Phone(s) \_\_\_\_\_ Spouse/ 2nd Adult \_\_\_\_\_

e-Mail Address(es) \_\_\_\_\_ Spouse/ 2nd Adult \_\_\_\_\_

Cars, Corvair and other \_\_\_\_\_

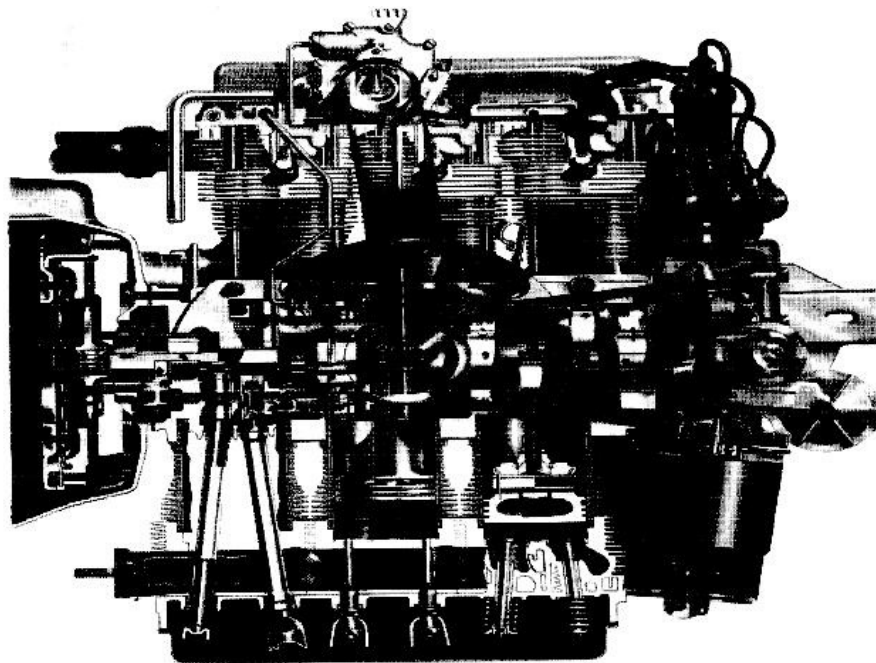
Other interests \_\_\_\_\_

PCCA strongly encourages membership in CORSA. Do you want/need information about CORSA? Y / N

Return the completed form and dues to:      Glen Rittenhouse, PCCA Treasurer  
    1804 Columbus Dr, Pekin IL 61554

Please make checks payable to Prairie Capital Corvair Association or PCCA

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