

Performance *Corvair* Group Newsletter

First Quarter 2008

Volume 2 Issue 1

PCG Holds First Meeting

The Performance Corvair Group Special Interest Chapter of CORSA held its first official meeting at the Corvair Performance Workshop in Dayton Ohio on February 23, 2008. The officers were introduced, President is Jim Dallas, Vice President is Michael LeVeque and the Secretary/Newsletter Editor is Ned Madsen. Nominations for new officers were made and the slate was re-elected.

The editor encourages all members to submit articles. This will be a great way to share information with other members on what is going on with both our cars and our members. These articles don't need to be about Corvairs, but should be based on something that our performance minded members will find interesting.

Performance Corvair Group Officers

Pres: Jim Dallas - BEC176@msn.com

VP: Michael LeVeque - mlevair@sbcglobal.net

Sec/Editor: Ned Madsen – aeroned@aol.com

PCG Patch – The latest in stylist Corvair apparel is here!!! Kevin Clark has designed a special patch for the PCG. You can contact Kevin at: kevin@kcvairbrush.com

Performance Workshop 5

By Rick Norris

Time does fly as the saying goes and there we were at the fifth gathering of the Performance Workshop in Dayton, Ohio, hosted again and perhaps for the last time by Gary Funkhouser at Vintage Motorsports.

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Corvair Olympics

By Brian O'Neill

Remember when you first heard about NECC events? Maybe you've always had a need for speed, but your first thought was "I don't own a race car". Other thoughts went through your head like, "Even if I did own a race car, I'd probably be eaten up by the veteran drivers".

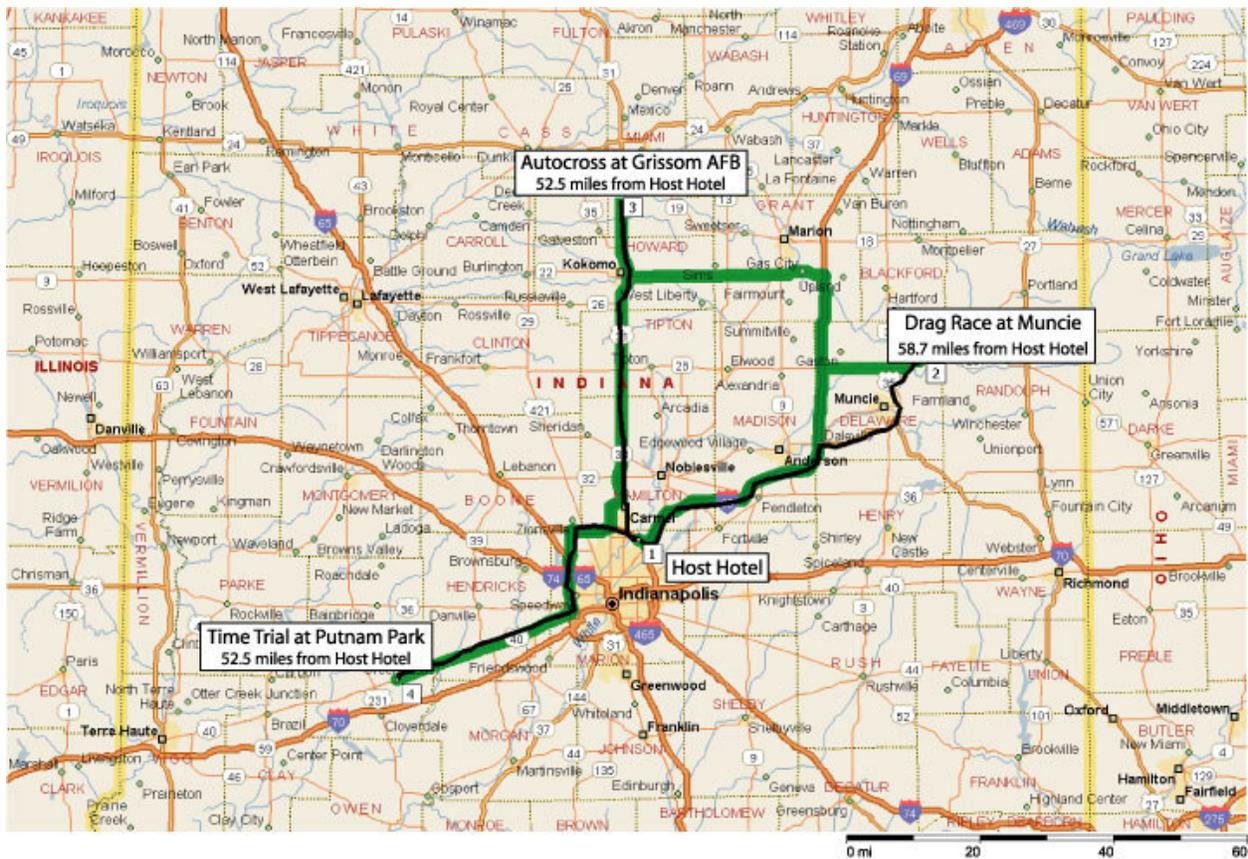
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Swingin' Along

By Warren LeVeque

When I took the restored '63 Spyder in trade for the Velociraptor formula car, I wondered what to do with our new "date car. I couldn't help myself and proceeded to hop it up some.

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Corvair Olympics (continued from page 1)

Or you might be thinking that you've heard the NECC does time trials but you're a drag race fan. Or maybe you're thinking "I'm an autocross guy". Or maybe you're thinking "All those go fast guys are weird! I've got a great looking show car. I want people to see it".

Well, here's news for you! This summer in Indianapolis over a three day period at the Corvair Olympics, you can do either time trials on a road course; do bracket drag racing, run a challenging autocross or put your car in a Corvair show. Or better yet do all of them!

Ok, now that you're interested, you're asking things like 'when?', 'where?', 'how do I sign up?'

It's easy, go to 'necmotorsports.com' for details and to register. Got more questions? Call Brian O'Neill at (973) 729-5586.

P.S. Look for our ad in this newsletter.

Performance Workshop 5

(continued from page 1)

Gary has sold his business and is semi-retired as he put it. He will remain involved in the Corvair hobby though.

Dan Giannotti was absent this year due to family business but he was instrumental in getting the Workshop series started.

A big thank you has to go to both these guys for providing relief from the “cabin fever” of winter and a yearly kick start for the Corvair racer and performance enthusiast.

Way back in February of 2004 I took Friday off and left early for Dayton. I had little trouble finding my way to the Vintage Motorsports shop. I already knew Dan but had not formally met Gary. I knew him by sight (whotta sight!) from the Columbus mini convention where I watched him spin Jim Schardt’s Bobsey on the autocross course.

As it turns out Gary has family in West Virginia so he does have some socially redeeming value!

I believe I was the second or third person to arrive that morning. The weather was cold but clear and on Saturday it actually got warm enough to be comfortable outside. This first meeting had Dave Dietrichs’ beautifully restored Stinger on display along with Dan’s newly purchased GT-3 Corvair Racer being overhauled by Vintage Motorsports. Dan also had the familiar black number 3 Corvair present as it was going to new owner Tim Mahler. Rob Fike had his No. 65 racer there and was one of the seminar speakers along with famous Corvair racer Jim Schardt, Warren LeVeque, Ken Hand and Brian Seibenick. We had several vendors including Seth

Emerson who comes from California and has been present at all five events.

Five years later the faithful were once again gathered in Gary’s shop for the 2008 version of the Performance Workshop. I traveled up with Bob Coffin on Friday arriving around noon.



(Photo by Rick Norris)

The weather was more typical of the area with sleet and evidence of previous snow.

Most of the usual suspects were present and a tour of the Forgeline custom wheel shop which is next door was in progress. After the usual meet and greet bull sessions, some vendor set up and general

getting ready for Saturday we all headed for the Treasure Island supper club for the big dinner which has become a tradition. The food was good and the camaraderie which is a big part of the whole week end was exceptional.

We all had to scrape the freezing rain off the cars when we started for the hotel but the roads were clear with no problems.

Saturday morning Bob and I had breakfast at Bob Evans with several of the other attendees then headed off to the shop. It was cold as usual but no new snow and the promise of sunshine the rest of the day!

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Performance Workshop 5

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(Photo by Rick Norris)

The featured car was Michael LeVeque's well known yellow track/autocross car which was used later on for the scaling demonstration by Chuck Sadek.



(Photo by Rick Norris)

The featured display item was the modular Corvair engine presented by Clark Hartzel. Clark also provided the entertainment during one of the seminars when he load tested a folding chair to failure! The only thing bruised was his ego.

The first item for the morning was the first official annual meeting of the Performance Corvair Group MC'ed by President Ned Madsen. (editor- Hey I'm not the Prez, just the newsletter editor, Jim Dallas is our leader.) Jim Dallas was this year's new Chair person and did a good job of keeping things on track.

We had some very interesting speakers this year. Dave Schwartz, a former Champ Car tech inspector and Corvair guy related many interesting stories about how race teams "interpret" the rules with some "creative" engineering.

Of real interest to all Corvair owners was the talk on oils given by Nick Dickson and Chuck Armstrong from the Brad Penn oil company. This came at an opportune time what with the ongoing debate about new engine oils not having the anti wear additives such as zinc which is important to flat tappet engines. Also a local distributor was on hand with several pallets of product which sold at dealer cost. I got there late and missed out.

Our own Bob Coffin and Chuck Sadek spoke about the new vertical cooling fan design for racing and showed a prototype model. It may be good for stock Corvairs too with some modification.

Brian O'Neill formally announced an exciting NECC event schedule for the year beginning with the three day Corvair Olympics in Indianapolis.

Lunch was again catered by Voltzys and his signature "Belly Bombs, Gut Busters and Heart Attack on a Bun" sandwiches. Saturday night was the dinner at the Treasure Island supper club.

The vendors did a brisk business. John Sweet had the largest selection of items. Seth Emerson had the most interesting item, that being an MSD distributor for a Corvair. It is in beta testing with Dave Edsinger.

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Performance Workshop 5

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Dave Clemons had his usual race car items not the least of which was an interesting new one piece high volume oil pump design in a complete kit. Dave also had the latest run of plastic rear windows, one of which went home with me.

As the day wound down and folks were packing up it was time for supper. That always means by tradition we all meet at the local steakhouse. There was around fifteen or twenty that made it this year. These were the hard core guys that stay for all of the activities. It wasn't as long a wait this year to get a table to seat all of us and the conversation was lively and loud. A great time was had by all.

Sunday morning was again very cold but no snow and the trip back home was uneventful.

I had a note of sadness in my heart as I fear a tradition has passed as the next workshop will likely be in a different location and as was discussed at a better time of the year for the weather. To me all this added to the uniqueness even though I towed my car to it in the snow and over the salted roads on an open trailer! We as humans resist change but as they say, change is inevitable.

I have been the unofficial photographer for all five events. I have a Special Edition set of all the photos I've taken from all five events on one CD. \$ 12.00 each includes shipping. Paypal, check, cash or money order.

Rick Norris
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Hurricane, WV 25526

Swingin' Along (continued from page 1)

Then I wondered what to do with the suspension. I have owned and driven several early model Corvair swing axle cars. I have found nothing whatsoever wrong with the suspension for daily driver use with standard tires; especially radials. I did try to autocross one with disappointing results; the inside wheel was in the air all of the time. If using better tires "jacking" or tuck under soon followed.

All of the "fixes" that I've read about and tried just moved all of the roll resistance and cornering power to the front tires; then when pushed the front end just washed out before the rear end was required to do much. If the rear end wasn't pushed than it didn't have a chance to misbehave. These fixes included heavy front anti roll bars, heavy front leaf spring helpers and devices to remove all roll resistance from the rear—like Z bars and camber compensators which became pivoting leaf springs in production. Some users just used short shock absorbers and restraint cables or straps which did prevent jacking by lifting the wheel instead.

I experimented on our date car by adding large anti roll bars on BOTH ends. No roll equals no tuck-under. This could also be accomplished by super heavy springs all around but would make "Mama's" date car ride like a race car. The rear anti roll bar also pushes "up" on the inside cornering wheel to eliminate tucking under. This theory was proven to my satisfaction by attending one autocross with the car; then back to date status. Both ends of the car then contributed to the cornering power, was neutral, and the car did not push or understeer like all of the other fixes.

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Swingin' Along (continued from page 5)

Then the Bill Thomas/Doug Roe car swing axle car came into my life. It was a roller with no engine and no obvious suspension mods. Apparently the previous owners had kept the interesting parts if there were any. According to the magazine articles that I had collected through the years, the very stiff spring idea (800# plus) was the "fix". The springs on the car as received were production heavy duties. There was a tiny front bar, no rear one, and only single shocks on the rear, but brackets for doubles. If the car truly had 800 or 900 # springs, then no single shock of the era could control the springs.

I decided to use the HD springs and large anti roll bars like the date car. I used a Crown 1" front bar and purchased 3 different size rear bars from Jeff Rapp.

The Roe car was to be an all out racer with very wide slicks, so ultimate cornering power was a must without radial tires to help; the inflexible slicks must stay flat on the ground. The swing axle geometry change or arc is rather severe. This tight arc can be lessened by lengthening the axles/lever arms as much as possible by using FC axles and wide wheels. The axles were lengthened even more than the first 1 1/2" spacer, then another 1/2" spacer to accommodate a late 3.89 4 spider posi with Yenko box.

I tested the first time at a local autocross with a 3/4" rear bar. The car understeered too much for autocross use requiring a large radius entry into tight corners. The next time out a 7/8" bar was tried with slightly improved push. A long wheelbase autocross car needs some degree of oversteer or rotation of the car into tight turns. It took the

1" rear anti roll bar to get the desired rotation and neutral to slightly oversteer condition without inside rear wheel lift or tuck in. Still more available rotation was desired.

A new condition after the above changes, was discovered in testing; under hard launches with the more powerful engine and wide sticky tires, the engine oil pan would nearly touch the ground. This was with factory replacement HD springs of around 350 to 400 rate. Figuring the new (longer axles and wider wheels) lever arm ratio (spring arm to wheel arm) at about 2 to 1, 850# springs were ordered. Now the double rear shocks were needed again. This prevented the drop under hard launch and was the fine tuning needed to get the proper rotation for my tastes. This rotation proved just slightly too much for track use and was dialed back with the 7/8 rear bar.

There is no good way to lower a swing axle car other than small diameter tires. The front end is lowered by traditional methods, but lowering the rear makes for severe decamber and turns the 10" wide slicks into functional 6" wide slicks. There is no noticeable lateral slop to fix on a swing axle so the desirable 0.5 deg. static neg. camber is easily obtained with spring length. Wanting to get rid of the hiked up rear end look and improve the handling, the rear of the was lowered by raising up the entire power train by slightly more than an inch. This was done by remaking the front and rear mounts. Other than improving the appearance, the rear needed lowered as much as possible to give the very high roll center forces less mass to work against.

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Swingin' Along (continued from page 6)

The final testing was at a local autocross where the Roe car surprised everyone, and especially me by taking Fastest Time of the Day. Remember, the car was a public failure every time before. Now I was confident enough to take the car on the 2005 Corsa National Tour.

This tour to Portland started at the Mini Convention in Iowa. The first event was the Marshalltown Kart track. We got a good start on the tour by setting FTD and a new track record of 78.0 sec. Donna Mae Mimms was there---gotta look good. I discovered there, that removing weight made negligible differences. Next we went to the double oval track with both a ½ mi. and ¼ mile section tied together with virtually no pylons. I solicited lots of advice as I had never run an oval before. I was losing to my son with one run to go. I watched Michael, in his Stinger, take all of the turns in 4th gear rather than the 3rd that I was using. After sitting in my truck and pouting/musing, I went for the 4th gear idea with no practice (remember-unreplaceable, valuable car). There was lots of grass and dirt, tossed about, but I took the win.

Next was the long hard tow to Portland for the Portland International Raceway track event and then a first gear autocross, in both of which I got first place overall. As an aside, at the track event each lap was slower as the wrapped exhaust crossover continued to fail. At the autocross, we had the SCCA Corvettes more than a little worried.

Even with the above successes, I have to confess that the Roe car still doesn't handle as well as my Stinger. The main difference is the extreme lowering of the Stinger in

comparison, and it's much lower roll center. The higher roll center of the Roe car is felt at fast cornering speeds as a gentle rear sliding which can't reasonably be tuned out.

No, I don't have any instrumented, data logged, facts to prove my theories, just the above results.

Engine Shrouding

By Seth Emerson

For most applications, you want to make sure that all the available cooling air is blown over the motor to perform its job. How you generate it is not the subject of this note, only the management of it. For autocross or Track work, the lower shrouds are not needed. With headers installed, the lower shrouds are a pain to re-fit anyway, though it can be done. You do want to seal up as much as possible the area above the cylinders/cylinder heads to make sure that the air you are blowing through to cool the motor is as cool as possible before you shove it through. The cooler the inlet air temp, the more heat it can extract from the motor. SO above the motor, the first order of business is to limit any areas where hot air from below the motor can re-circulate back into the inlet side of the fan. On late models, the perimeter seal must be adequately attached – at both the frame rails and the top sheet metal. And have no tears or missing pieces. Toward the front of the shroud, the feeder flange for the “fresh-air” re-circulating hose should be blocked off. The upper shroud parts should fit well together with few or no openings through to the heads around the carbs. The standard rear shroud parts can be improved for racing.

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Engine Shrouding (continued from page 7)

Check your stash for a couple of thermostat door boxes where the door shaft retainers, the bent over tabs on the outer sides have already broken off. Those are the right ones for you. Dump the doors. If you are building a 140 and will retain the original 12 plate cooler, be sure to use the corresponding driver's side box. If you are remotely mounting the cooler, say up front, use a 95 or 110 box. It is much easier to fabricate the correct block-off plate for that smaller area. Otto Parts and others made special oil cooler "remoting" blocks. Those bolted in place of the cooler and fed the oil out and back from a remote cooler and often a remote oil filter as well. A quick review of the 1961 shop manual will explain all you need to know about oil flow into and out of the rear housing, as well as inside of it. The

rear boxes perform a service to you and should be left on. At the rear of the motor, the center cover, the one that blocks you from reaching the two rear motor mount nuts, should be installed. At the front of the motor, on the sides, you can either block-off the two feed holes that feed the heater, or find a pair of front pieces from a 1960 or 61-on Gas heater car. Those early pieces still manage the air flow but give you better access to the bell housing area. They are probably lighter as well. Be sure to check up above the pushrod tubes to make sure the proper re-directing shrouds are in place and retained. They are easy to forget during assembly but are necessary for proper air flow. The goal is to place as much colder air as possible on top of the motor as possible – then get the hot air out the bottom as easily as possible. Improving either one will help.

Upcoming Events

The Streets of Willow Springs –Time Trial by the California/Arizona Racing Group
Sunday, June, 22, 2008 Willow Spring Raceway, Rosemond, CA
Held in conjunction with CORSA convention in Ventura, CA. Entry fee is \$150 before June 1 and \$200 after. Contact:

Jack Pinard
116 E Garden Green
Port Hueneme, CA 93041
corvairjack@verizon.net
(805) 340-6533

Having a Corvair Event? Send info to aeroned@aol.com

Editor's Notes

A BIG thank you to Warren LeVeque, Brian O'Neill, Rick Norris for their contributions to this newsletter!

Vendors!! I would like to make a list of Performance Corvair vendors in this newsletter. Please send me your information, like what might be on your business card. BTW This will be **FREE**, since the PCG has no budget, treasury or expenses.

Now that the 2008 racing season is upon us, I'd like to get articles of you and your Corvair at speed especially with pictures.

- Ned

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AND

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