



Der Bayerische

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From The Driver's Seat

The turnout for the National meeting was very impressive, not too many more people would have overflowed the room. A number of people took advantage of the opportunity to talk to Parker Spooner, Ray Stinson, and Joe Chamberlain--I hope everyone who wanted to got the chance.

Parker apologized for the ballots which listed Ric Cavallero twice (for Activities Chairman and Member-at-large) instead of Dave Roach for Member-at-large. Dave, Ric, Parker, and I had agreed that the creation of a new Member-at-large position for Dave would be fair and acceptable. In addition, any ballot which listed one or two votes for Ric was counted as one vote for Ric for Activities Chairman. Parker was very interested in being as fair as possible to Dave and Ric. Unfortunately, no adjusting can accurately indicate what the results could have been. Neither Ric nor Nancy won their races, so Dave is our only National Representative.

However, Ric, Dave, and Nancy did receive valuable national exposure (their major disadvantage in the election) and hopefully next year we can field a full slate with a decent chance of winning.

Many thanks to Chet and Ric and all of the members who showed up for the Autocross on March 31. In spite of the weather (and my running through a timing light) it went very well.

Suzie Wyban

ALWAYS MOVING ON ALWAYS MOVING

The Backseat Driver

As most of you have noticed our meeting place has been shifting almost every month. It has been very difficult to find a place that doesn't charge us rent. We're not as big as PCA (which can guarantee 200 or so at a meeting or small enough to meet in someone's house. We also don't have the money in the treasury to rent a place regularly. I've been able to locate a place that will allow us to use a room if we buy \$75.00 of food and/or liquor. If we don't, the club must make up the difference. The place is the BRICKSKELLER at 1523 22nd St. N.W. They serve sandwiches, pizzas, etc. It's not like the Brooke Farm Inn where they served only complete dinners. The BRICKSKELLER serves mixed drinks, American and imported beers, including a special treat for beer lovers--COORS!!!! The prices are reasonable. Please come for dinner as it is to the advantage of the Club. When you order make sure you tell them that you're with the BMW Club.

Nancy Stutsman

\$ \$ \$ \$

March 1 Balance \$327.00

	Incoming	Outgoing
Club party		\$ 28.67
Autocross expenses		10.00
BMWCCA dues		112.50
Council dues		55.00
Newsletter expenses		69.54
February meeting		25.00
Dues		
New	230.00	
Renewals	143.00	
Total	373.00	300.71
Net	\$ 72.29	

April 1 Balance \$380.16

Jim Blankenship

Minutes

National Annual Meeting - March 22, 1974

NATIONAL FINANCIAL REPORT

Revenues

New Members	\$11,307.50
Renewals	3,080.00
Grill Badges	971.10
Reprints	1,255.19
Advertising	519.50
All Other	<u>1,258.20</u>
Total	\$18,391.49

Expenses

Roundel Costs	\$ 8,455.36
G & A	<u>8,720.21</u>
Total Expenses	\$17,175.57

Increase in members equity - 1973 -
\$ 1215.92.

The March meeting of the club followed the annual National meeting. Due to time limitations, the following reports were shortened.

Ric Cavallero announced the club's auto-cross on March 31st.

Council report followed. Mike Leeper stated that the idea for an answering service, which was brought up at the last meeting was tabled by the Council until more information could be found.

Gretchen Blankenship announced the club has gained 11 new members.

The racing report given by Jerry Coffey proved to be very informative. The factory has withdrawn from sedan racing for various reasons, including the fuel crisis. Jerry also reported the Cosworth engine will cost one-third the price of a prepared BMW engine.

Kathy Leeper reported that the BMW rally will be held on November 17th (so far as we know). There are several rallies due in this area and any information on them can be obtained from Kathy.

The Service report was given by Mel Morganstein. Mel has gotten a lot of feedback from both the dealers and owners. According to one well-known dealer in this area, the insurance companies that dealers have to work with are to be blamed for many of the problems that come up when having body and mechanical work done.

Meeting ended with the showing of two racing movies brought by Parker Spooner.

NOTE: Quite a deal of info was given at the National meeting about Oktoberfest '74. Most importantly, the Boston and Connecticut chapters will be handling the fest this year instead of Chicago. More details can be gotten from Ric Cavallero and in the next issue of the Roundel.

Denise Price



Gas Cans and Fire Extinguishers

If you are planning to buy a gas can to use in Maryland, particularly in Montgomery County, make sure it's made of metal. Montgomery County law requires cans to be made of metal. Maryland law requires gas cans to be UL approved if they are made of any other material (i.e., plastic). If you're going to store gas in your car, you may also be looking for a fire extinguisher. If you plan on ever getting it refilled, make sure the nozzle isn't made of plastic; most places won't refill fire extinguishers with plastic nozzles.

Member Memorabilia

We're here to welcome some more new members and to give some information to old members. We have a bunch of new people this month, so let's welcome:

Frank and Gertrude Lane, 9206 Twin Hill Lane, Laurel, Maryland, who have a 1973 2002tii.

James Kraft, 400 Tenth Street S.E., Washington, D.C., the owner of a 1969 2002.

(I forgot to write the type of car for the rest of these people, but they were announced at the last meeting. Sorry.)

Francis and Genevieve Anderson, 105 West View Drive, Thurmont, Maryland.

James Wood, 12730 Brewster Circle, Woodbridge, Virginia.

Dennis Kreps, 5808 Wyngate Drive, Bethesda, Maryland.

Kevin Davis, 2863 Beechwood Circle, Arlington, Virginia.

James and Deborah Senior, 6620 Tenth Street, # A-1, Alexandria, Virginia.

Richard Crouch, 12524 Kavanaugh Lane, Bowie, Maryland.

John and Francis Falconer, 10600 Seneca Ridge Drive, Gaithersburg, Maryland.

Richard and Bernice Goodrich, 3031 Hazelton Street, Falls Church, Virginia.

Carey Heckman, Hinman Box 2096, Hanover, New Hampshire (Dartmouth College). Carey's home base is in the Washington area.

Estelle Watts, 2212 Colston Drive, #102, Silver Spring, Maryland. Estelle has been a member of the National club for some time.

Welcome to all! Now for old members, a little unpleasant business. Some of you are falling behind on your dues and since

I'm finally catching up on some of my chores, I thought a reminder might be helpful. The following people are 3 months or more behind and will be struck from the membership list if I do not hear from them by May 15. (If anybody wants to discuss their status, please call me at home.)

Michael Turner
Allen Hamers
Robert Hodge
Wayne Mock
Daniel Martin
Michael Focke
Robert Kidd
Bruce Roberts

Gary Curran
Jeffrey Raymond
Bill Tate
Francis Fung
Edgar Brenner
Grahame Reffell
John Grady

Also, if you move, please let us know.

Gretchen Blankenship

Club Store

Our last meeting was a special affair with the National President present and didn't follow the usual format. By keeping the store open during part of the meeting in a back corner we were able to gross about \$100. Tune up items continue to be the big selling category.

The following articles are in the club store inventory and need publicity:

- 1 windshield washer pump kit, 6 volt brake pads for earlier 1600 and 2002 models, (the pads measure about 62mm or 2 7/16" top to bottom as they are on the wheel.)
- 1 case of Quaker State oil (SAE 40 racing)
- 1 rear "short necked" muffler (inlet pipe is about 4" long)
- 1 master cylinder repair kit (for 2000 model 67/68)

If any of these things fit your needs call me and we will arrange a sale.

Service Report

First, a statement of my philosophy. The service report that I give must be based on the reports I get from the members, first. To do it up right, I could go to each and every dealer, visit their shops and interview them, questioning them on the specific problems related in specific reports given me. Unfortunately, I would wind up as an intermediary working out problems between the dealer or shop and the car owner, taking up the job of the Consumer Affairs Agency. Theoretically, the fairly strict dependence on reports should work -- it does for PCA -- if our members do their job!! The Service Reports is not a bitch column. You have just as much an obligation to the club, and your fellow members, to submit good reports on satisfactory work done by our local shops as on unsatisfactory work. Further, you really have an obligation to submit reports on ALL shop work if we're ever going to get a working thing going. Once I get some data under my belt, then and only then, do I have the right to form opinions. I can then fill this column with a good consensus of information from the members without having to stuff in too many observer comments of my own. Unfortunately, the pressure to supply information on a specific shop forces me to provide reports based on minimal information. It is fortunate that the conscientiousness of several local shops in replying to the column (VOB, Motortech, and VOB Body) helps shed light on a lot of mysteries presented me. Their contacting me, to answer the column, shows more than the reports could ... that they give a damn!

To illustrate my point: for at least a year, people have been asking me "How's Motortech?" and I have been replying "I don't know, how about somebody sending me a report on Motortech!" (Verbal reports are not acceptable; I shouldn't have to write the report in the club file for you too! I need them in writing.) Finally, one dribbled in...and the drip stopped. After a period of time, I

finally wrote the column, based on that one report. Phil Dermer, after trying to get me for some time directly (I was out of town on the first vacation in 3 years.) wrote me a three page letter instead. Phil explained that the \$60 was indeed for four hours work and that customers are charged straight time at \$15/hr. (After some checking I found that this fee is not way out of line-- considering one local shop charges \$22/hr. At least Motortech does not charge by the ripoff flat-rate method based on a working rate of an incompetent boob. Phil claimed the appointment book stated that the customer described the problem as "strange knocking sounds" coming from the engine and started a step by step teardown which would hopefully give the answer the quickest and easiest, and thus cheapest, way, i.e., check under the rocker cover, compression test, etc. I will note here that our member insists that when he brought the car in he pinpointed the noise in the lower end. It is not unreasonable to assume that the book did state "strange knocking sounds". As to who is responsible for that phrase I cannot determine. It is up to our member and the Motortech person who made that entry to resolve. As a last resort, the pan was pulled, says Phil, and a wiped out #1 rod bearing was found. It was our member who stopped work on the car. Phil also explained that he incurred long-distance telephone expenses trying to locate a motor for the member. Along with a little verbal hemorrhoidectomy, Phil also gave me a description of his shop and an outline of his procedures and philosophy which will be printed when space permits. He also sent along a Motortech handout covering the 4 and 8k service procedures that is far more complete than anything BMW offers. You can use it to either see what Motortech does on the service or you can use it yourself. (I will, thanks, Phil.) Phil did close with a note which clinches most of the trouble here, and I quote (almost): "P.S. Ever bother talking to Mr. X about us? He is at all your meetings. He can tell you what our place is like vs. dealers and others." Well, Mr. X--you know who you

are--I've never gotten any service report from you on Motortech or any other place! But...you are not alone; there are more of you out there, too!

Ed Knovac of VOB Body Shop gave me a very concerned call. They got a bad score so far and he wanted to resolve the problems as best he could to the customer's satisfaction. However, after a long conversation with Mr. Knovac, something entirely new arose. Most of the difficulties that people have been having are simply the result of the insurance companies who want to save a few bucks at your expense. It was the insurance company that required a vertical blend in the paint of a single door on one of our member's cars--they wouldn't even pay to get the entire portion of the door below the beltline painted. It was the insurance company that refused to pay for the proper front suspension check before bodywork--so it wasn't done. One member ran his car into a snowbank which packed up in the engine compartment and wiped out the braking system. Since the insurance company "could not see how that could possibly happen" and thus wouldn't pay VOB to fix it, VOB couldn't and didn't fix it. And so on. I did get the impression from the members involved that these problems which VOB was having with the insurance companies--and there are a few in particular, especially "you-know-who"--were not made clear to them by Mr. Knovac. The solution is obvious, and the responsibility is yours to:

1. Find out on your own where the hangup lies.
2. Go after the company on your own--I had to do it--and don't dump the responsibility on the body shop. It's your insurance company and it's your car and your life.
3. State law requires that the car be fixed and returned to the same condition it was in before the accident. This year, apparently, the insurance companies have taken on an intentional policy of under-estimating by 15% to cut costs,

to your detriment. See that you get what you're entitled to.

As soon as we can, we will have Mr. Knovac at one of our meetings to answer questions. (He volunteered to do this.) In the meantime, I'll be digging more into what your legal rights are re the insurance companies. Stay tuned. Mr. Knovac also pointed out that he did some work for one of our members who is a real stickler, a Mr. Y. Mr. Y was so pleased that he went out and bought Ed a bottle of Pierre Cardan Cologne; which, I think, says a lot. However, I've never seen a report from Mr. Y, either.

Mel Morganstein

CAPACITOR DISCHARGE IGNITION

I'd like to make a group purchase of the Tiger 500 CD ignition system. If I can get over 12 people, the price will be \$27.50, discounted from a list of \$53.95. While the device has a normal/cd switch like the Delta Mk10B, it also has a lifetime guarantee (instead of 1 yr.), 75% greater peak spark current and 40% longer duration, i.e., about 2 1/2 times the power to the spark plug. It has better cold weather starting capability (3.6 min operating voltage instead of 5v). It also consumes about 40% less power and has better radio noise suppression. I'll need checks made out to me ahead of time which will not be cashed until I can order.

Mel Morganstein
2048 Seattle Ave.
Silver Spring, Md.
(H: 384-5858,
W: 282-2298)



Auto-Xtacy

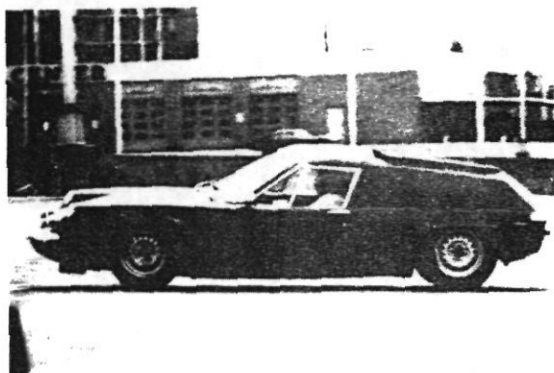
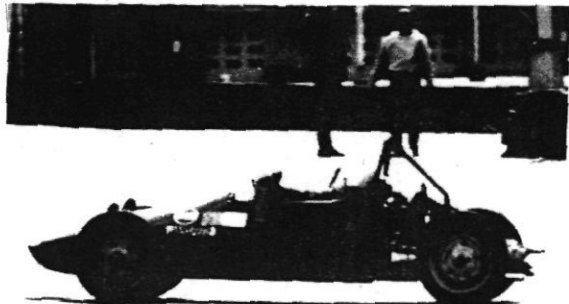
Well, our Championship Autocross went off without a hitch except that we could have used more workers. We plan to put on at least one more major autocross and possibly one or more autocross schools yet this year so I hope to see more members become interested in this exciting sport.

A followup to my article last month about member Roger Byrd and his indoctrination to autocrossing: he lived up to my expectations and on March 10th he took 1st place at the SCCA Championship opener. (That's something I have yet to accomplish after 2 years of trying.)

The schedule for the 1974 season of Championship Autocrosses is as follows beginning with the 3rd event of the year:

April 21	-	USCC
May 5	-	CCI
May 19	-	AJSTC
June 9	-	SESCA
June 23	-	ACTC
July 14	-	TAA
August 11	-	LOTUS
August 25	-	PCA
Sept. 15	-	MGCC
Oct. 6	-	MCMC
Oct. 27	-	SCNCA

The 3rd Championship is scheduled for April 21 at Montgomery Mall Shopping Center and is sponsored by the University Sports Car Club. It should be an excellent event and I expect to see quite a few members there. Call me or watch the Stopwatcher for more info. As you can see by the listings below the Club team and individual members have been doing quite well. Hope to see some new participants on April 21st.



individual points for BMWCCA members for
Championship Autocrosses as of two events:

<u>name</u>	<u>Class</u>	<u>Points</u>
et Kingsbury	E/P	18
ck Price	C/S	18
rry Bacas	C/S	16
c Cavallero	A/P	16
ger Byrd	C/S	12
Alber	A/P	9
ve Toy	B/M	7
dy Anderson	B/M	4
ve Roach	C/S	3
ul Schauble	C/S	1
etty Kingsbury	L/B	1

am standings for Championship Series
of two events:

<u>sition</u>	<u>Team</u>	<u>Points</u>
1.	SCCA	59
2.	BMWCCA	58
	USCC	58
4.	SCNCA	55
5.	CCI	47
	PCA	47
7.	LOTUS	44
8.	MGCC	43
9.	MCMC	25
0.	AJSTC	24
1.	AAAA	19
2.	TAA	18
3.	SESCA	11
	GC	11
5.	CCA	4



Tech Tips

TECHNICAL POTPOURRI

Your Bimmer behaving badly? Stumbling on acceleration? Starting well cold but not when hot? Dying for no reason? Could be a pinhole in the fuel line. BMW fuel line is not the best quality replace it with the two ply type (cord visible in cross-section) from your local friendly parts store.

Does your car show all the symptoms of needing a new fuel pump? Could be the pump pushrod. I've seen a few cases where the rod was worn enough to cause the pump to lose efficiency. I replace them as a matter of course at about 40,000 miles (shades of flathead ford V-8's!). If this seems to be your problem, the pushrod is the approximately 1/4 inch diameter rod that you see sticking out of the head when you remove the fuel pump. The rod goes in either way. In an emergency you can remove the gaskets on the fuel pump mounting block (phenolic) and turn the pushrod over. This should get you home.

Got a fan belt squeal you can't cure? by tightening or replacing the belt? The bushings on the alternator mounting bracket could be bad. These aren't stocked by Hoffman; however, they stock air conditioner bushings which are the same except for color.

Has anyone out there replaced door and window gaskets? My antique '67 is ready for new gaskets and I could use any tips. In any case, look for an article on it in the future.

Terry Wyban

ALSO:

Does anyone out there own or know anyone who owns a gas station? I am also looking for volunteers to help on an economy run. Good suggestions also needed.

VACUUM LEAKS

BMW uses a plastic-like material for vacuum hoses on the Bavaria. In a short time this material develops holes and cracks and loses its elasticity and effectiveness for tight connections.

If your idle speed suddenly increases for no apparent reason or you hear a hissing noise coming from the engine, look for vacuum leaks.

After I found three leaks in the vacuum lines, I replaced all the hoses and the 3-way and 4-way connectors as well.

I strongly recommend the use of hose clamps for better seals at the carburetor, distributor, and exhaust return under the front air cleaner. The whole idea for all this is to completely seal the vacuum system for better aspiration of the engine.

Milton Tondow

The new BMW cars for the IMSA Camel GT Challenge and SCCA TransAm got their first American workout recently when Hurtig-Team Libra began testing their 3.0CS racers at Lime Rock, Pa. John Buffum and Andy Petery are said to have turned in some astonishing times while testing the winged wonders which ran off with the European Touring Car Championship last season.

(From Autoweek)

Dieter Quester has changed his mind about retirement and will team with David Purley, both in March 742 BMWs.

BMW will test its new 24-valve CSL at Paul Ricard.

(From Autoweek)

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## LOOSE GEARSHIFTER??

If any of you with late 72-on cars start noticing a seemingly loose gearshift, it's probably one of the bolts that mount the linkage to the transmission. These bolts also hold the switch for your seat belt buzzer and after much operation of this switch the bolts tend to loosen. The remedy is to remove the switch and if the bolts are loose, coat them with Locktight and re-tighten.

*Ric Cavallero*

## BMW 2002 Suspension--Part III: Springs and things

BMW 2002 front and rear springs are of nearly identical design--the small dimensional differences are due mainly to the larger wire diameter in the rear. The rear springs are about 15% stiffer, but since they act on the trailing arm inboard of the wheel, the wheel rate is only 70 to 75% of the actual spring rate. (The measured ratio of spring movement to wheel movement was .72 at mid travel--this number is sometimes called the linkage ratio.)

The approximate spring rates in lb./in. are as follows:

|       | front   | rear    |
|-------|---------|---------|
| red   | 113-117 | 129-133 |
| white | 117-121 | 133-140 |
| green | 121-125 | 140-144 |

Since the front and rear springs are interchangeable with minor modifications, a number of different spring combinations are possible using only stock springs. The use of cut springs (with or without ride height spacers) further multiplies the available spring rates. We will look later at some combinations used in

competition, but first we will quickly run through the other springing media in the BMW chassis.

#### Rubber bushings

The rubber bushings in BMW suspensions are not free to rotate. They are clamped down tight at the normal (loaded) ride height position. When the suspension arms move the bushings flex like a torsion spring resisting both up and down motions. The combined spring rate of the bushings is about 8-10 lbs./in. at the wheel. In jounce this force assists the springs--in rebound it counteracts the springs. Thus in roll, the bushings behave like a soft sway bar, but they also exert a "centering" force under all conditions.

#### Bilstein shock absorbers

The gas chamber in Bilsteins behaves like a captive variable rate spring. At full extension, front shocks exert a force of about 25 lbs. (per shock) in the same direction as the chassis springs. At normal ride height they exert a force of about 28-30 lbs. And near full jounce the force rises to over 150 lbs. More precisely, there is a 25 lb. preload with the basic spring rate rising from about 1/2 lb./in. at full rebound to over 6 lb./in. at a point about 1 1/2 inches below full jounce. At this point an "internal bump stop" comes into play and the spring rate increases to about 80 lbs./in. Thus it takes over 150 lbs. of force to hold a Bilstein front shock fully compressed. Note that the front shock (with stock geometry) never operates in the stiff parts of its range in cornering but only in hard braking and heavy bumps. The rear shocks differ only in rate and the absence of the internal bump stop. They have a preload of about 30 pounds and an initial rate of about 1 lb./in. The force rises to about 36-38 lbs. at normal ride height and 55 lbs. at full jounce with a final rate of about 6 lbs./in. Bilsteins raise the car about 1/4" in front and 3/8" in the rear.

#### Sway bars

When a car is cornering the outside wheels move into jounce (bump) and the

inside wheels move into rebound with respect to the chassis. A sway bar resists both of these motions, i.e., it applies a downward force to the outside wheel and the upward force to the inside wheels. The algebraic sum of spring forces due to chassis springs and sway bars on each side of the car is independent of the presence or stiffness of the sway bars. In other words sway bars have virtually no effect on total weight transfer across the car (but a marked effect on the speed of the transfer).

Thus if the sway bars have the same front to rear stiffness ratio as the chassis springs (all spring and swaybar rates measured at the wheels), then they have no effect on the weight transfer characteristics of the suspension. If, however, a stiffer bar is added at one end of the car, that end takes a larger share of the total weight transfer which in turn reduces the weight transfer and increases the "adhesion" at the opposite end of the car.

Of course the same effect can be produced by choosing stiffer chassis springs with one very significant difference. Due to the upward force mentioned above, swaybars may tend to lift the inside wheel under high cornering loads and/or adverse conditions (bumpy surfaces or irregular slip-grab traction). Stiff springs are much less subject to this problem since they are independent and do not inhibit rebound wheel travel.

So we return once again to the choice of springs. There are several spring combinations being successfully used in racing and at least two different specifications for the street. Early 2002s used matched springs which gave a front to rear stiffness ratio of about 1.20. Late model cars with higher front ride height generally use higher rated front springs which give a stiffness ratio of about 1.25 (the extra front roll stiffness compensates for the altered roll axis).

On a racing chassis the amount of addition-

al stiffness required in the front depends on how far the suspension geometry has been tweaked. If the front roll center is lowered below the optimum height, more stiffness is required to offset the loss of roll resistance normally provided by the geometry. Lowering the rear roll center relative to the front also requires more front stiffness. The well designed Alpina racing suspension on the other hand uses a stiffness ration of 1.20.

Two widely differing approaches have been most successful in IMSA Racing Stock Sedans (formerly called Baby Grand.) The first approach is to lower the car to the limit on both ends using the stiffest springs possible with the front 35-40% stiffer than the rear. The second approach is to leave the rear somewhat higher than the front and keep the front roll center as high as possible using a stiffness ratio closer to stock. The first approach requires a very careful choice of springs--the second approach requires very careful suspension setup using shims to get the suspension geometry as close to stock as possible on the lowered chassis. Neither approach requires stiff sway bars.

Next month: Transient Behavior (handling)

Jerry Coffey

SOMEWHERE OVER THE OH WELL...



## Rally Box

### What to Take and the Route

The most essential item to take to the start for a beginning rallyist is a knowledge of the general instructions. Other items which are helpful are a watch of some degree of accuracy, if possible a good stopwatch, and a substantial pack of paper or a clip board. A Flair marker or ordinary pen is useful too. Slide rules, maps, double clip boards, 16 pens, etc., might make you feel better, but they are of doubtful use. If it is a night rally, take a flashlight. Some money, \$5 or so, might be useful for beer, lunch, dinner, or whatever. Sometimes, though rarely, tolls will be paid. Generals should tell you that.

A full tank of gas is a must. It is a good idea to have tire changing gear, a wrench or two in the car. Some rallies require flares, a first aid kit, etc. Check it out in the generals. This can be a problem if you don't preregister.

Give yourself plenty of time at the start. It's nice to bring along some coffee and goodies and feast while rereading the generals. You have to get your car number on, fill out envelopes for results to be sent out in, sign a waiver, copy down changes in the generals or route instructions and sometimes perform other little jobs. Some rallies allow having route instructions for a while before leaving the start, too.

You leave the start at whatever the stated time is plus your car number in minutes. If the start is at 9:00 and your number is 23, you leave at 9:23. There will be a line of cars behind the start. Line up. There will be a radio with a time beep going most times, or someone to give you a wave on the right second, at least. Set your watch as nearly as possible to the right time and/or start your stopwatch. Go. Don't forget the generals.



The first part or leg of a rally is a tire warmup and odometer check (for accuracy or degree of inaccuracy). It is usually very easy as far as staying on course. You will be given a specified period of time to complete it, usually a half an hour or so. Don't worry--it'll be enough time if you stay on course, and probably if you don't. When you get to where the odo leg ends, stop and wait until the period of time stated has passed. If you're without a watch, and if you're car 23, leave about a minute after car 22.

What about correcting your odometer? Forget about it the first few rallies. If there are turns which can only be done at a mileage, you've probably had it anyway. If you really want to, here's how. Divide the number of official miles (the mileage beside the instruction which ends the odo leg) by the number of miles your odo shows. Multiply each mileage on the route instructions by this figure if you had less mileage than the official mileage. Divide each mileage by the figure if you had more mileage than the official measurement. This will tell you what your odo will read when you get to the spot in question, provided you don't get off course. If you do get off course, note your mileage when you realize you are off course, and when you get back on course. Find the difference. Double it. Add the figure to all mileages.

How does one stay on course? There are so many traps possible that it would be ridiculous to go into them here. A few general hints will help, though.

At each intersection, stop or slow way down. Apply the general priorities before going on. Be sure you're looking at the right route instruction and reading it correctly. It helps to check off each instruction as it's completed. It also helps if the route instructions are where both driver and navigator can read them. Some rallyists like to tape or mount a clipboard to the dash to hold them. Punctuation should be noted

carefully. Even spacing (is "horsepen" one word or two?) can be important. (Is ten a "10" or a "ten"?)

3. Know the Council rules. Use them.
4. Have a reason to do everything.

Because of all this thinking, most beginning rallyists tend to be behind time. It is a good idea to drive somewhat over the specified speeds between intersections for that reason. Ten miles an hour extra probably won't be too much for the first few rallies. Don't worry if you're late, though. It is more important to stay on course!

Sooner or later you will encounter a checkpoint. Check your watch as you cross the timing line--the point of entry. (The line will be marked with a  $\checkmark$  sign.) It is easy for checkpoint crews to read a minute wrong. The generals usually go into detail about what to do at a checkpoint.

Current events--It looks as though our CR will be in November, the originally requested date.

The BRANDED CR will be April 28, and it looks as though we will field a team. Cars must reserve their own numbers for this rally. Team captains were not allowed to do this this time. Let me know if I can help in any way.

April 13--WRC "Balloon Goes Up"; Pike 7 Plaza, Tyson's Corner, Va. Registrar is Liz Lieberman, 3441 Launcelot Way, Annandale, Va., (703) 560-8033. FCO 11:01, cost-\$4.50.

April 14--CCB, 7th Annual Easter Rally, Normandy Shopping Ctr., Baltimore. Registrar is Carolyn O'Neill, (301) 363-1218. FCO at 12:01.

April 28--BRANDED CR, Kings Park Shopping Center, Springfield, VA. Registrar is Eileen Wenger, 308 Lawton St., Falls Church, Va. 22096. FCO, 11:01; 119 mi., \$5.

Kathy Leeper



P. O. BOX 2413  
HYATTSVILLE, MD.  
20784

## First Class

*Filler up  
at the  
next  
meeting!*



## Next Meeting

The April meeting (and hopefully all from now on) will be held at the BRICKSKELLER, 1523 22nd St. N.W., between P and Q. Our Speaker will be Bob Dreyer from Modern Body Shop.

As things stand now, Bill Scott from Bill Scott's Racing School will speak at the May meeting and we will take the Brewery Tour in June. The June meeting is not final yet. Watch the Bayerische for info concerning the Brewery Tour.

