



Checkpoints

VIRGINIA MOTOR SPORT CLUB

VOLUME XI

NUMBER IV

APRIL, 1967

Coming Events



April 8,9- National SCCA Race @ Marlboro

April 16 - VMSC "Viva Monaco" Gymkhana @ Willow Lawn

April 23 - VMSC Ladies Rallye - Azalea-Brook Hill, 1:00

29,30 - National SCCA Race @ VIR. VMSC Bus Trip.

If You didn't get a flyer on this, contact Al Smith @ 282-8766. \$10.00/person, inc. adm.

May 7 - PMSC Autocross SAAB 5-Hour Rallye

May 14-VMSC Autocross @ Ellerson, 12:00

May 21-VMSC May Rally Azalea-Brook Hill 12:30

NEW MEMBERS

Bill Agee
800 Hepler Rd.
288-0823

Stuart & Gayl Allwoerden
19 Horseshoe Curve
262-0045

Randy & Susan Cournow
7010 Hunt Club Lane, Apt. 1723
262-2695

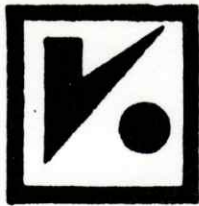
Ken & Boo Ferguson
7001 Flagstaff Lane
262-0854

Gabriel, 5th & Eleanor Peasley
514 Cedarbrook Lane
288-7943

CHECKPOINTS IS PUBLISHED MONTHLY BY THE VIRGINIA MOTOR SPORT CLUB, INC., AND IS MAILED FREE TO MEMBERS. SUBSCRIPTION RATES TO NON-MEMBERS ARE \$1.50 PER YEAR. MEETINGS ARE HELD AT 8 P.M. EVERY THIRD THURSDAY AT THE BRANCH HOUSE, MONUMENT AND DAVIS AVENUES, RICHMOND, VIRGINIA. PRESIDENT - HART GRUNDY, 8707 WELDON DRIVE, RICHMOND, VA. PHONE: AT 2-5341. DEADLINE FOR MATERIAL IS THE 5th OF THE MONTH. ALL MATERIAL SHOULD BE ADDRESSED TO 3538 FLOYD AVENUE, APARTMENT #1
EDITORIAL ASSISTANT: SAYRE BARNETT

T. D. H. Barnett
Editor

Mike Grim
Managing Editor



ALLEY

NOISE

"AND WE HAVE here another scene from Nassau"...and the clatter of the ice against the glasses became louder..."Here is another scene, hey whose car is that"...and the guest's chatter and the ice clinking against the glasses became louder...

"AH! HERE IS A scene from Richmond"...and the chatter became louder, and the laughter became louder and the ice clinking against the glasses became louder...

"A GROUP OF VMSC members back from the races"...and the chatter became louder and louder, and the laughter became louder and louder, and the ice clinking against the glasses became louder and louder...

"AND..." -- this was the last word we heard from Cecil Wright's description of last year's trip to Nassau.

PITY TOO, ...I might have liked to go. - MIKE GRIM

EDITOR'S NOTE: The reason for this column or editorial is not just for the purpose of espousing the editor's views, obsessions and general observations he has chosen to make since the previous issue. They are, for the most part, to attempt to interest members in the paper and to prod them into some action with a pen or pencil. The editor wishes to extend space each month to any member who cares to (1) crucify the editor for some past statement; (2) comment on some intelligent and/or helpful subject or (3) to simply get something off of his chest concerning the club.

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if you have a tiger under
your hood until you drive**

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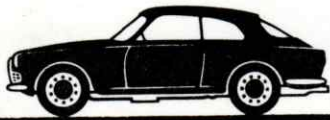
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THE

VIVA MONACO GYMKHANA

in cooperation with the Willow Lawn Merchants
Association and in conjunction with their

"APRIL IN MONACO"
celebration



WILLOW LAWN SHOPPING CENTER

SUNDAY - APRIL 16 - FIRST CAR OFF AT 12:30

CLASSES:

Sports over/under 1600cc

Sedans over/under 1500cc

Ladies

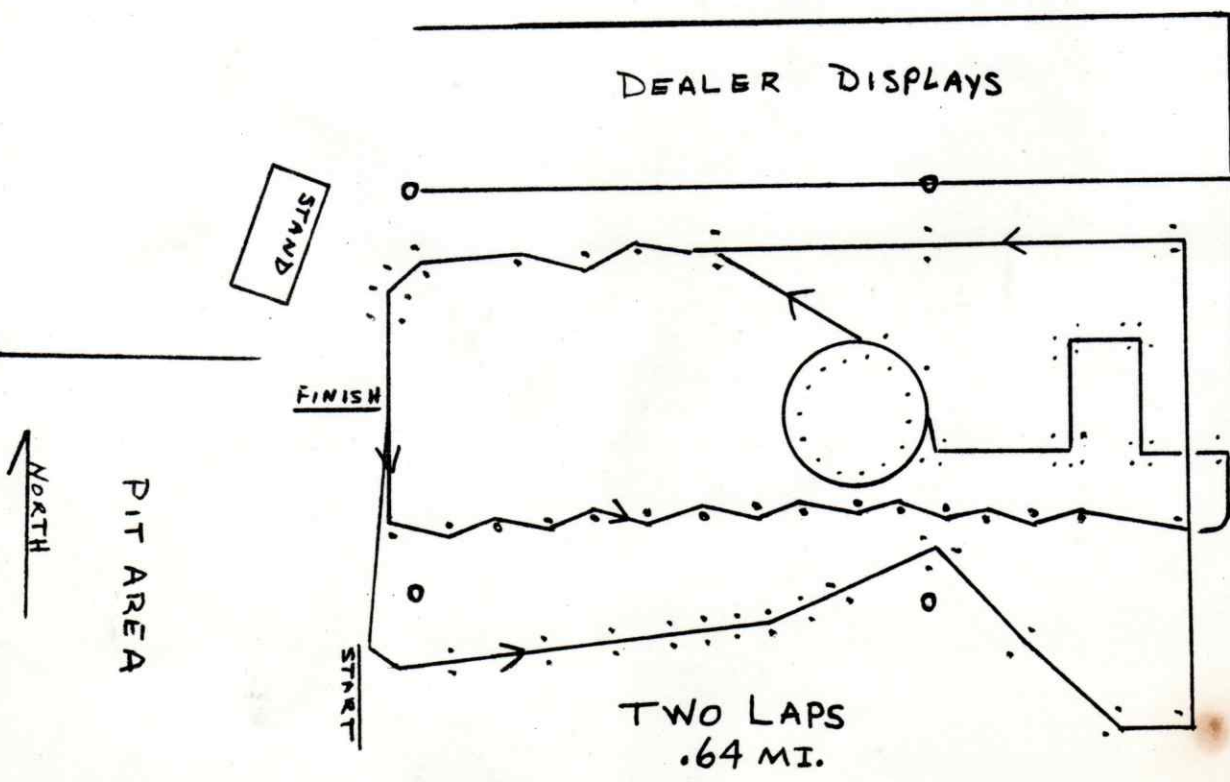
TROPHIES:

1st, 2nd and 3rd in

each class

First place trophies consist of bronze medallions awarded to Monte Carlo Rally winners. All trophies will be awarded at the May meeting of the VIRGINIA MOTOR SPORT CLUB, Branch House 2501 Monument Ave., Richmond, by a representative of the Prince and Princess of MONACO. Dash plaques given to the first forty-eight entries.

Contestants must possess a valid operators license and a permit to register from the chief technical inspector. Entry fee will be \$2.00 for all clubs members, \$3.00 for non-club entrants and \$1.00 for those traveling over sixty miles.



ANNUAL POINTS STANDINGS - V.M.S.C.

AS OF MARCH 31, 1967

1.	GEORGE WINFREE	2,600	22.	RANDY COURNOW	550
2.	ANN GREENWOOD	2,200		GREG HOWE	550
	WILTSHIRE GREENWOOD	2,200		BOB KENNEDY	550
3.	BILL DIXON	2,000	23.	HUNTER BARNETT	500
4.	LAURETTA DIXON	1,950		SUSAN COURNOW	500
5.	HART GRUNDY	1,800		HENRY WHEELER	500
6.	CARYL HATCH	1,700		MIKE GRIMM	500
7.	EDITH WRIGHT	1,650	24.	JANICE BERGERON	450
8.	DICK HATCH	1,600		MARK FORTE	450
9.	CECIL WRIGHT	1,550		DICK SANDERSON	450
10.	AL CARR	1,450		ROSALINE WILSON	450
	NEALE DICKENSON	1,450	25.	KARIN WHEELER	400
11.	SAYRE BARNETT	1,350		BRIAN GRAWBERG	400
	JOHN RUBLE	1,350	26.	JOHN WILSON	200
	JACKIE WHITEHEAD	1,350		JOHN YOUNG	200
	BILL WHITEHEAD	1,350	27.	WRAY BRAGG	150
12.	DORIS BELCHER	1,200		ELIZABETH HILLMAN	150
13.	CHUCK EDWARDS	1,100		PHIL LIVELY	150
	KATHLEEN EDWARDS	1,100		GEORGE PATTESON	150
14.	LEN WELLS	1,050		RALPH SPRING	150
15.	KENDALL PARKER	1,000		DICK HARD	150
	AL SMITH	1,000	28.	BILL AGEE	100
16.	PAT CULLY	900		NONA CHEHASKE	100
17.	BOB BOWES	850		ROBERT CLARK	100
18.	EMORY ANDERSON	800		DON EILER	100
19.	JOHN BERGERON	750		PAT ISBELL	100
	SANDRA PEABODY	750		JIM MORRISSEY	100
	DON STEWART	750	29.	JERRY CAVEDO	50
20.	JOHN AYERS	700		JOHN KESSLER	50
	JOHN CHEHASKE	700		SUZANNE KESSLER	50
21.	GAIL CARR	600		BRIGITTA KULLGREN	50
	DON CULLY	600		MEL LOFURNO	50
	BILL STEWART	600		SHIRLEY PATTESON	50
	NANCY WITCHEY	600		BILL PEABODY	50
	WALTER WITCHEY	600		ANN SEAY	50
				PORTER SEAY	50
				JANE GRUNDY	50

NOTICE! NOTICE! NOTICE! NOTICE! NOTICE! (Please?)

The VIR bus trip on April 30 will leave from Southside Plaza at 5:00 A.M. instead of 5:30 as stated in the flyer. Please send your checks to Al Smith as soon as possible; we need to know what size bus to reserve. That's Albert Nutt Smith, Jr., 1204 Hollins Road, Richmond 23229. (282-8766)

VMSC Annual Eight-Hour Azalea Rallye

Never having run a VMSC rally together, Hart and I decided on last year's SEVSCO Championship that the Azalea Eight-Hour would be a good time to get together. So one cold Sunday in March we joined twenty-three other cars at the Azalea Brook Hill Shopping Center to see what tricks our o.d.'s (Bill Whitehead and Wiltshire Greenwood) had been up to.

It became apparent very early in the contest that Wilt must have done some of this work during his January reign as the "ineibriated hitchhiker." It's a shame those calculating o.d.'s didn't know how to say "60 seconds" and said "0.00069444 days" instead. We understand that answers to this included one for 2.4 seconds and another for 30 seconds!

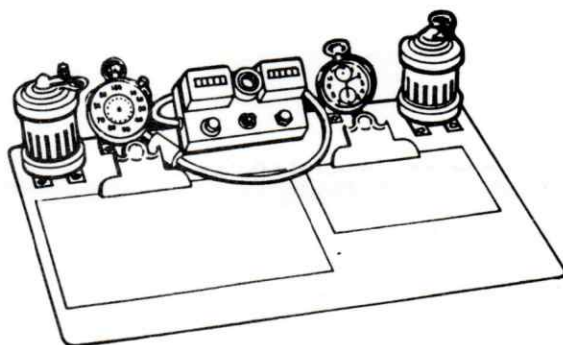
The instructions were very good and allowed few opportunities for a lapse in mental alertness. Although the route was rather clear to us, we understand that the morning took its toll with only eight of the twenty-four cars getting to checkpoints two and three. The afternoon was not as difficult and there were considerably less errors by all except us--our afternoon times did not look quite as good on the scoreboard as our morning ones.

An interesting morning instruction requiring a little calculation which confused some was "left four minutes from last instruction." Two other noteworthy parts of the morning leg were the straight onto route 630, missed several times, and the left turn made by route 30 outside of West Point. On this latter instruction the contestants had just completed a rest break, zeroed odometers, and were headed out of town on routes 30 and 33 looking for a left at 4.36 miles. Many forgot they were on route 30 and when it turned left two miles out of town they continued on route 33 looking for the mileage turn. What truly hurt was that there was a turn near the correct mileage!

The best afternoon instruction was "left after route 624" which coincidentally (or planned?) put you on route 624 as it made a loop and came in as the first route after the original route 624. Several cars missed this and were seen hurrying back as the next left after both 624's was a dead end!

Bill, Wilt, and their crews are to be congratulated for another fine VMSC rally. The overall planning was very good. The rest stop, lunch break, and destination were all well chosen and it was especially nice to have ample time for lunch. We did feel that maybe several more checkpoints could have been used; however, we understand our o.d.'s desires to have the scores available at dinner and hence can overlook this as more checkpoints could have hurt our standing!

George Winfree for
Hart Grundy and myself



GT-6

Triumph



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MI 9-0595

1967 AZALEA 8-HOUR RALLY

Date run: March 19, 1967 Number of cars: 22 Cost per car: \$7.00

O.D.'s: Ann and Wiltshire Greenwood, Bill and Jackie Whitehead

Helpers: K. Parker, A. Smith, R. Sanderson, D. Belcher, L. Wells, G. Carr, S. Barnett, H. and K. Wheeler, and R. and M. Madison*

PLACE OVER	CL	DRIVER	NAVIGATOR	CAR	C/P ERROR						
					1	2	3	4	5	6	T
10 1st	E	G. Winfree	H. Grundy	#2 TR-4	0	4	8	3	59	0	74
2nd	E	*D. Scott	L. Carter	#17 AH-3000	44	31	1	9	4	3	92
9 3rd	E	L. Dixon	B. Dixon	#3 VW	11	77	49	1	17	2	157
8 4th	E	K. Edwards	C. Edwards	#9 TR-4	3	497	60	3	3	1	567
7 5th	E	C. Hatch	D. Hatch	#4 Porsche	48	24	800	22	7	0	901
6 6th	U	W. Witschey	N. Witschey	#6 XK-E	116	30	682	301	7	5	1141
5 7th	U	R. Cournow	S. Cournow	#20 TR-4A	1200	114	611	175	92	72	2264
4 8th	E	B. Kennedy	G. Howe	#7 S. Alp.	69	1200	1051	0	11	6	2337
9th	E	*T. White	B. White	#10 TR-4A	9	1200	1200	29	25	1	2464
3 10th	E	A. Carr	J. Ayres	#11 TR-4A	14	1200	1200	1	120	0	2535
2 11th	U	M. Grim	H. Barnett	#8 Sprite	54	1200	1200	77	66	11	2608
12th	E	*W. Dodd	R. Turner	#12 VW-KG	139	1200	1200	2	9	431	2981
1 13th	E	J. Ruble	J. Ruble, Jr.	#1 GT-6	1200	1200	1200	6	69	0	3675
0 14th	U	J. Cavedo	B. Cavedo	#16 AH-3000	1200	1200	1200	42	8	36	3686
15th	E	C. Wright	E. Wright	#5 Porsche	1200	1200	1200	142	1	2	3745
16th	U	N. Dickenson	T. Dickenson	#15 VW	1200	1200	1200	88	11	49	3748
17th	U	B. Agee	J. Blanton	#21 Spitfire	1200	1200	1200	117	91	12	3820
18th	U	*D. George	S. Harlow	#14 Spitfire	1200	1200	1200	122	507	116	4347
19th	U	R. Hamel	P. Lively	#24 Sprite	1200	1200	1200	448	337	144	4529
20th	U	*R. Staples	J. Hart	#18 Mustang	1200	1200	1200	90	1177	154	5021
21st	U	C. Young	R. Wilkinson	#22 Sprite	1200	1200	1200	1200	1200	318	6318
22nd	U	*S. Rowe	C. Sherman	#23 MGA	1200	1200	1200	1200	1200	1200	7200

* indicates non-members

"CRANKSHAFT JOURNAL"

Our discussion this month will feature the rear axle complex, or "THIRD MEMBER", as it is known inside the auto industry.

This important component is the final drive unit between the engine and the wheels which power the vehicle, and too often the operator abuses the differential through neglect, poor driving habits, or general apathy. The driveshaft is the input source from the power supply, and the "live-axle" type machines utilize a "SPIRAL-BEVEL" or "HYPOID" carrier assembly to house the ring gear and pinion, which is inside the "banjo housing" object between the rear wheels. The driveshaft turns the yoke, universal joint, and pinion gear set, which transmit the power at a 90° angle to the ring gear, which is situated just as the rear wheels are in respect to the automobile. Thus, the "banjo housing" looks like a T, with the axle shafts turning the wheels, as the axles are turned by the differential carrier assembly, which is being driven at a 90° angle by the driveshaft from the transmission/engine unit. You can easily realize the fragility of a crown wheel of 4 to 9 inches in diameter being turned by slanted or spiralled teeth meshing with teeth in a much smaller pinion set, which is rotating at high RPM's, directly connected to the engine, which could be either a SPRITE, or TR-4, or maybe even a CAMARO pumping out about 300 horsepower!

With the advent of softer compound rubber and oval or wide tread tires, the "third member" takes on more work, and with a high-torque engine and oversize tires, the ring gear can be easily exploded, or at best the axle shaft convolution can stop the machine "on the line". Some relief of this ripping apart is built-in with soft-sprung rear suspensions, and as the steam is turned on, the spring leaves go into inverted catenary, or "arching" and momentarily the axle and gear set are let off, but as the power overwhelms the springs, or as the tires really bite, the strain goes entirely back to the T where power must be absorbed, and in many cases, this just ain't possible!

Most modern designs use the HYPOID rear axle type, which allows a lower floor and chassis design, as the pinion meets the ring gear down at the bottom, instead of directly at center, as in the old days. This also gives a little more power from smaller or lighter metal assembly, just as you can move your Jaguar by pulling on the spokes, or better, pulling up on the tread of the tire to roll the car forward.

The long life of rear axle assemblies can be insured by allowing the car to begin moving before "tromping the loud pedal", and by not getting stuck in ice and snow, and not burning the tires off as you leave the Esso station, and by using some discretion when changing gears on the big V-8 jobs.

The same details apply on rear-engined units, except they incorporate a combination trans-axle, and this will be a later subject. Remember to specify HYPOID grease when changing differentials, and remember to "cool it" at Ellerson, etc., in order to save your spider gears, and preserve your piggy-bank!

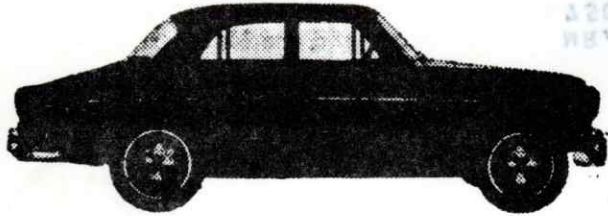
Thanks, and we'll see you in May!

D. Eugene Atkinson

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Volvo is economical (it gets over 25 miles to the gallon).

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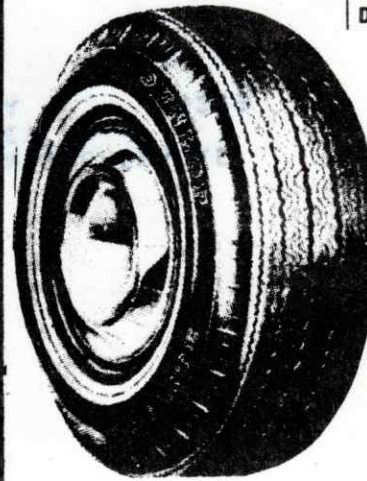


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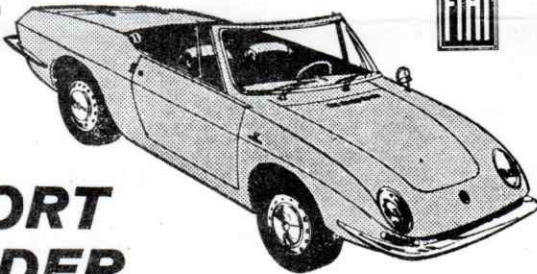
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